The experience of and engagement with Perinatal Mental Health Services amongst mothers with and without personality disorder

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Thesis declaration form

I confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Overview

This thesis considers interventions and service provisions for mothers with a personality disorder across the journey of parenthood.

Part 1 is a mixed methods systematic review. Eleven studies that explored parenting interventions in parents with personality disorder (PD) or personality disorder traits (PD traits) were reviewed and synthesised. The review aimed to consider intervention feasibility, acceptability, and effectiveness. Modest support was found for parenting interventions being feasible and acceptable to parents with PD/PD traits. Further, this review noted trends of effectiveness across parent and parent-child outcomes.

Part 2 is a mixed methods study exploring the experiences and engagement of Perinatal Mental Health Services (PMHS) in mothers with and without PD. Comparing mothers with and without PD, found that the presence of a PD or not, did not predict engagement with PMHS. Instead, mandated attendance to PMHS by social services, heightened health and social needs, and lower perceived social support predicted reduced engagement with PMHS. Mothers with PD reported significantly less confidence in the skills and techniques used by PMHS, whilst thematic analysis depicted mothers with PD valued PMHS, yet experienced obstacles to care.

Part 3 is a critical appraisal of designing, conducting, and analysing the empirical study (part 2). This appraisal maps the chronology of the project, from highlighting motivations behind the topic area to completing the project. A range of challenges and learnings are reflected upon.

Impact statement

The mixed methods systematic review presented in part 1 addresses a clear gap within literature. To the author's knowledge, this is the first review to examine the effectiveness, feasibility, and acceptability of parenting interventions in parents with a personality disorder or personality disorder traits (PD/PD traits). The findings suggest parenting interventions can be feasible and acceptable to parents with PD/PD traits. Moreover, this review summarises the evidence available for intervention effectiveness, namely, that parenting interventions show some promise for improving parent and parent-child outcomes.

The systematic review highlights numerous implications for future research. In particular, the review supports the need for rigorous, well-documented and higher controlled research trials exploring parenting interventions in large samples of parents with a PD. Researchers should take note of the key methodological shortfalls of the current evidence base noted in the review. The review highlights the lack of diversity in the samples of the existing evidence; thus, it will be important for future research to explore whether factors such as PD diagnosis/severity, ethnicity, culture, gender (or parent role e.g., father) impact findings. Whilst the clinical implications of the review are limited by the constraints of the existing evidence base, the review encourages services to document practice-based evidence on parenting interventions to build upon current understanding. Conducting further research in this area is highly valuable to direct clinical guidelines in how to support these high-risk families.

The empirical study presented in part 2 is the first large scale research study that has investigated mothers with PD and their engagement with and experience of Perinatal Mental Health Services (PMHS). This mixed-methods account incorporated both in-depth exploration of participants' experiences as well as reliable comparisons between groups in an under-researched area. The study replicates and builds upon the current evidence base illustrating mothers with PD have more adversity, mental health symptomology, and have increased involvement from social services, a valuable finding for all healthcare professionals and services to consider when supporting this population.

This study found engagement to PMHS did not significantly differ between mothers with and without PD. Instead, factors that predicted reduced engagement were mandated attendance to PMHS by social services, increased health and social needs, and reduced perceived social support. Stigma was not found to influence participants' engagement with PMHS. These results suggest PMHS and wider National Health Service (NHS) policy guidelines should consider how they support families mandated to attend PMHS by social services, and families who have high adversity and low social support. Overall, mothers reported a positive experience of PMHS. However, mothers with PD felt less confident in the care provided by PMHS and thematic analysis identified less acceptable aspects of care to include: an over-focus on medication and abrupt treatment endings. This study postulates that increasing transparency in care decisions may enhance the experience of PMHS for these mothers. A research aim identified from this study is exploring engagement with PMHS longitudinally and supplementing self-report engagement with staff ratings. The empirical study provides a timely and relevant account of how mothers with severe and complex mental health symptomology interact with PMHS, findings that can hopefully contribute to The NHS Long Term Plan's transformation of PMHS.

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Part 1: Literature review

Parenting interventions and personality disorder: a mixed-methods systematic review of intervention effectiveness, feasibility, and acceptance

Abstract

Aims: This review aimed to synthesise quantitative and qualitative studies documenting parenting interventions trialled with parents with personality disorder or personality disorder traits (PD/PD traits) to consider intervention feasibility, acceptability, and effectiveness.

Method: Studies were identified through systematically searching five electronic databases (PsycINFO, MEDLINE, Web of Science, Scopus, and Maternity and Infant care) and five grey literature databases (Google Scholar, UCL discovery, OATD, Oalster, and PsycExtra). The PICOS format (population, intervention, comparator, outcome, and study design) was followed to determine eligibility of studies (P: adult population with PD/PD traits who are parents, I: parenting intervention, C: no control required, O: parent, child, parent-child outcomes on acceptability, feasibility, or effectiveness, S: no case studies). All included studies were rated on the Qual-Syst tool for methodological quality. Quantitative data was narratively synthesised using the Synthesis Without Meta-analysis (SWiM) reporting guidelines (Campbell et al., 2020), and qualitative data was analysed using a thematic synthesis approach.

Results: Eleven studies met inclusion criteria (six quantitative, four qualitative, and one mixed methods) and were analysed to consider intervention feasibility, acceptability, and effectiveness. Six studies included feasibility data and demonstrated feasible participant recruitment, retention, and attendance rates. Thematic synthesis of five studies resulted in themes supporting and opposing parental acceptability. Seven studies were synthesised to assess effectiveness, some of which showed trends towards the interventions being effective at improving parent and parent-child interaction outcomes.

Conclusions: This review provides preliminary evidence in modest support of parenting interventions in parents with PD/PD traits. Several research and clinical recommendations are identified.

Introduction

Personality disorders (PDs) represent a group of mental health disorders described in the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) as marked by "enduring patterns of inner experience and behaviour" (American Psychiatric Association; APA, 2013, p. 685) that deviates from societal and cultural norms and contributes to distress and impairment. Prevalence rates vary, with PD affecting between 2.6% and 11.3% of people worldwide (Winsper et al., 2020). The DSM-5 (APA, 2013) acknowledges 10 distinct PDs that are organised into three clusters: A, B, and C. Cluster A PDs are associated with behavioural patterns considered odd or eccentric, while Cluster B PDs are characterised by emotional or erratic patterns of behaviour, and Cluster C PDs are marked by anxious and fearful beliefs and behaviour. However, borderline personality disorder (BPD), a cluster B PD characterised by pervasive emotion dysregulation, interpersonal difficulties, impulsivity, and an unstable sense of self (APA, 2013), is the most commonly reported PD in clinical settings and research.

Living with a PD can be a debilitating experience, with long term impacts including relationship instability and dysfunction (Daley et al., 2000), co-occurring psychopathology (Grant et al., 2008; Zanarini et al., 1998), and engagement in risk behaviours (Katakis et al., 2023). It is noted that 60-70% of individuals with BPD attempt suicide, often multiple times within their lifetime (Cheng et al., 1997; Gunderson & Ridolfi, 2001). The exact aetiology of a PD is complex and remains uncertain, however, a combination of genetic vulnerability and negative childhood experiences are hypothesised to play a role in the development (Carpenter et al., 2009; Kendall et al., 2009; Steele et al., 2020).

Twenty-five percent of individuals with a PD who access adult mental health services are parents (McColgan, 2005). Although parenting practices, parental satisfaction, and external support given to parents varies across cultures (Bornstein, 2012; Chang, 2007; Gao & Lee, 2021; Lansford, 2022; Su & Hynie, 2011), universally, parenthood brings a myriad of challenges and new responsibilities (Nomaguchi & Milkie, 2020). Individuals with a PD may experience additional psychosocial challenges in their parenting role, specifically in relation to responding to the emotional needs of their child (Barnow et al., 2006). This could be due to an impairment in mentalisation – a reflective cognitive capacity that enables one to make sense of their own and other's mental states (Fonagy, 2002; Fonagy et al., 2003). A reduced mentalisation ability has been shown to interfere with appropriate parental behaviour and responses (Byrne, 2021).

The impact having a PD can have on parenting is well-documented. In a recent systematic review, parental BPD was associated with maladaptive parenting practices such as, inconsistent discipline, and insensitive and intrusive behaviours (Steele et al., 2019). Further, mothers with BPD exhibit higher levels of maladaptive speech and distress in their parenting role (Crandell et al., 2003; Hobson et al., 2009; Newman et al., 2007). It is hypothesised that these problematic parental responses may be explained by the parent's own experiences of trauma and lack of positive and sensitive parenting in their childhood (Agrawal et al., 2004; Baer & Martinez, 2006; Bowlby, 1985).

Research has also examined the impact a parental PD may have on a child's development. Across multiple stages of development, children of parents with PD (specifically maternal BPD) have increased psychological and socioemotional difficulties, such as poorer emotion regulation, higher rates of emotional disorders and behavioural problems, and more suicidal tendencies (Barnow et al., 2006; Blankley et al., 2015; Eyden et al., 2016; Hobson et al., 2005; Macfie, 2009). Mothers with BPD are also more likely to have infants who display insecure attachment styles (Hobson et al., 2005). As attachment insecurity in childhood is significantly associated with developing BPD in adulthood (Lyons–Ruth et al., 2005), this highlights the possible intergenerational transmission risk associated with this parent-child relationship. Further, children who have a parent with a PD have a heightened risk of being removed from their family by child protection services (Eyden et al., 2016; Nagel et al., 2021; Stanley & Penhale, 1999), which may impact on a child's mental wellbeing (Chlebowski, 2013).

The National Institute for Health Care Excellence (NICE, 2009) guidance currently does not provide any specific recommendations on how to support parents with PD. Parenting interventions are often considered the core treatment option to support parent-child dysfunction within clinical settings (such as Perinatal Mental Health Services and Child and Adolescent Mental Health Services) in the United Kingdom (UK; Carr, 2019). The umbrella term of parenting interventions is used to describe interventions that seek to support parents with the demands and challenges of parenthood. Parenting interventions can be informed by a range of psychological theories, including social learning theory, functional analysis, attachment theory, psychodynamic theory, and cognitive-behaviour principles (Metzler et al., 2012). However, commonalities across interventions exist, with parenting interventions often focusing on upskilling parents to increase parental self-efficacy, self-regulation, and agency (Saunders & Mazzucchelli, 2013). Additionally, parenting interventions often provide parents with a space to reflect upon the parent-child relationship to support the development of sensitive and positive parenting practices (Dalgaard et al., 2022).

Parenting interventions frequently cited within the evidence base (e.g., the Incredible Years Program and the Triple P program) have shown a weakened effect when parents experience emotion dysregulation, mental health difficulties, or a history of trauma and attachment problems (Assenany & McIntosh, 2002; Maliken & Katz, 2013). This presents a serious gap in mental health services, with standard parenting interventions not focusing on the mental health needs of parents with PD and their children, and standard treatment for PD not offering help regarding parenting-related problems (Florange & Herpertz, 2019; Zalewski et al., 2015). This has led to the development of parenting interventions specialised for parents with PD – interventions aimed to alleviate and target challenges associated with parental PD.

No published research to date has collectively synthesised the evidence base to evaluate the suitability and effectiveness of interventions that support parents with PD. In comparison, literature reviews of specialist parenting interventions for other parental psychopathology (e.g., depression, substance misuse, psychosis) have demonstrated improved parent and child outcomes and reduced intergenerational transmission (Overbeek et al., 2022; Radley et al., 2022), suggesting specialised parenting interventions to be a viable and effective intervention to minimise the impact of parental psychopathology. Establishing a reliable and early preventative intervention for parents with PD could support parents with the demands and challenges of parenthood, by increasing sensitive and positive parenting practices, thus improving the parent-child relationship. This may in turn reduce the child's vulnerability to developing mental health disorders and avert the need of child protection services removing the child from their family.

The National Institute for Health and Care Research (NIHR) and the Medical Research Council (MRC) recently published a framework to encourage broadening the evaluations of interventions from focusing solely on effectiveness in symptom reduction, to also including the assessment of feasibility and acceptability (Skivington et al., 2021). Considering feasibility means incorporating whether the intervention can be conducted successfully, for example, evaluating recruitment capability, and participant retention. Whereas acceptability assesses whether the intervention is deemed acceptable by the participant and/or healthcare provider (NICE, 2020; Office for Health Improvement Disparities, 2020a).

Analysing acceptability and feasibility of interventions may be particularly important within the PD population as having a PD is associated with difficulties engaging with mental health support (Jinks et al., 2012). Further, parents with PD have significantly lower levels of engagement with perinatal services (Blankley et al., 2015) and heightened concerns that their diagnosis will increase judgemental assumptions made about their parenting (Wilson et al., 2018). In the past, parents reported feeling unheard and unsupported with the complexity of their needs (Zacharia et al., 2020).

Aims of current systematic review

This review aimed to systematically synthesise research examining parenting interventions in parents with PD. Due to the relatively limited evidence base, and the stigma and reluctance surrounding the diagnostic label of PD (Paris, 2007), this review included studies with participants classified as having "PD traits". PD traits are conceptualised as a person either partially meeting diagnostic criteria for a PD and/or displaying impairments and behaviours consistent with a PD (e.g., emotion dysregulation, interpersonal difficulties). This systematic review specifically aimed to address the following questions:

1. What parenting interventions have been trialled in parents with PD/PD traits?
2. Are parenting interventions effective at improving parent, child, and parent-child outcomes in parents with PD/PD traits?
3. Are parenting interventions considered feasible to deliver for parents with PD/PD traits?
4. Are parenting interventions considered acceptable to parents with PD/PD traits?

Methods

Study Design

Case studies were excluded from the current review as they are often considered to have a high risk of bias and low methodological quality (Moher et al., 2009). The review included both qualitative and quantitative research and thus required a mixed-methods design, incorporating quantitative and qualitative research into a single study (Johnson & Onwuegbuzie, 2004).

Pre-registration

This mixed-methods systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta Analyses 2020 (PRISMA 2020; Page et al., 2021) guidelines. A preregistered protocol outlining methods involved in conducting the current review was registered on the International Prospective Register of Systematic Reviews (PROSPERO, registration number: CRD42022353253) available at https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42022353253.

Eligibility criteria

To determine eligibility of primary studies, the PICOS format (population, intervention, comparator, outcome, and study design) outlined by PROSPERO was followed. To be included in the current systematic review, research had to meet the criteria outlined in Table 1.

Table 1

Eligibility for current systematic review using PICOS format.

PICOS	Eligibility criteria
Population	Adult participants (of 18 years and above) with a personality disorder diagnosis or personality disorder traits/pathology. Adult participants that are a parent (to a child/ren <18 years).
Intervention	Studies focused upon a parenting intervention, or an intervention which targeted parenting or parent-child difficulties, or an intervention which aimed to increase parenting skills/techniques. No limits on the theoretical model or format of the intervention.
Comparator	No control/comparison group was required.
Outcomes	Studies which reported quantitative or qualitative data on either parent, child, or parent-child outcomes. Studies that included feasibility, acceptability, or effectiveness outcomes.
Study Design	Case studies were excluded.

Search strategy and study selection

A systematic search of titles and abstracts was performed on five electronic databases (PsycINFO, MEDLINE, Web of Science, Scopus, and Maternity and Infant care) to identify articles that explored parenting interventions in parents with PD pathology (e.g., diagnosis, symptoms, traits, emotion dysregulation, interpersonal difficulties). The search was conducted in March 2022. Table 2 details an example template of the search syntax used which was slightly adapted depending on database requirements. To combine specified terms, Boolean operators (‘or’ ‘and’) were used. Truncation symbols (e.g., ‘*’) and wildcards allowed the author to conduct a search inclusive of term and spelling variations. All searches were limited to date (≥ 1980) as this was the year PD was conceptualised within the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III; Crocq, 2013). Grey literature searches were also conducted in July 2022 on five databases: Google Scholar, UCL discovery, OATD, OAlster, and PsycExtra using similar search terms. To supplement searches, reference lists of included studies were hand searched. Searches were repeated in May 2023 to identify any relevant new publications.

Systematic searches were conducted by the first author (EB) and subsequent articles were imported onto the reference manager, Endnote. Duplicate articles were removed, and the title and abstract of every article was screened. Articles that did not meet inclusion criteria were removed. For the remaining articles, full texts were obtained and screened for eligibility. A second reviewer (JF) assessed a randomised sample of 25% of studies against inclusion and exclusion criteria. All decisions were documented in an excel spreadsheet.

Data extraction

For articles that met the inclusion criteria, a data extraction form based on PRISMA 2020 guidelines was created in Microsoft Excel. An example can be seen in Appendix A.

Table 2

Example of the syntax template used across database searches.

Syntax
Parent* intervention or parent* training or parent* skill or parent* program* or parent* treat* or parent* therapy or parent* group or parent* therapy group or parent* skill* group or mother* intervention or father* intervention or carer* intervention or parent* psychoeducation
AND
Personality disorder* or borderline personality disorder* or BPD or EUPD or Personality trait* or personality difficult* or personality disorder trait* or borderline personality disorder trait* or emotionally unstable personality disorder* or emotional instab* or borderline or emotional disturb* or emotion dysregulation or emotional dysregulation
Limited to: Date: ≥ 1980 Language: English

Data synthesis

This mixed-methods systematic review followed a segregated synthesis design requiring qualitative and quantitative data to be synthesised in an independent manner with different synthesis techniques used (Sandelowski et al., 2006). The separate syntheses were integrated in the discussion. To review parenting interventions that have been trialled in parents with PD/PD traits (research question one), all studies regardless of study design were narratively summarised.

Effectiveness

To evaluate whether parenting interventions were effective at improving outcomes for parents with PD/PD traits and their children (research question two), quantitative data on parent, child, and parent-child outcome measures were extracted. This is due to pre-post outcome changes being the most widely recognised measure of intervention effectiveness (Office for Health Improvement Disparities, 2020b). Heterogeneity of outcomes used across studies and limited available data precluded a meta-analysis. Therefore, the current review used a narrative synthesis method following the Synthesis Without Meta-analysis (SWiM) reporting guidelines (Campbell et al., 2020). Where statistically possible, all outcome measures were converted to a standardised metric (effect size) to allow appropriate comparison, with the caveat that in studies with small sample sizes, effect sizes may be inflated.

Feasibility

To consider feasibility (research question three), quantitative data on feasibility parameters were extracted from quantitative and mixed-methods studies and narratively summarised. Identifying appropriate feasibility parameters within the included studies was informed by the NIHR (2020) guidelines as well as previous systematic reviews investigating intervention feasibility (e.g., Forbes et al., 2019). The feasibility parameters that were synthesised included: recruitment capability, participant attendance, participant drop-out rates, and intervention adherence. In line with previous research assessing the feasibility of interventions for PD populations, a 40% recruitment rate, 65% retention rate, and 70% attendance rate were deemed as sufficient benchmarks to denote feasibility (Comtois et al., 2010; Crawford et al., 2020; McMurran et al., 2010; Oud et al., 2018).

Acceptability

To assess acceptability of parenting interventions (research question four), qualitative data capturing the parents' experiences of parenting interventions were analysed using a thematic synthesis technique. The analysis followed methodological guidelines for thematic synthesis (Thomas & Harden, 2008); a method primarily developed to assess intervention acceptability

(Barnett-Page & Thomas, 2009) and hence closely aligned with the current review's objectives. Thematic synthesis adopts a critical realist perspective which disputes that the 'real world' can be directly observed. Instead, it posits that what can be measured is one's experience of the world influenced by beliefs, experiences, and perspectives (Willis, 2023).

All studies containing qualitative data were uploaded onto NVivo (20) software for analysis. Text within the 'results' section of qualitative studies (including tables, quotes, diagrams) was considered data (Noyes et al., 2018; Thomas & Harden, 2008). The researcher (EB) read each article multiple times to allow sufficient data immersion. The thematic synthesis was completed in three stages. Initial free line-by-line coding of each of the study's results sections occurred. Next, 'free codes' were organised and collated into related constructs to generate higher-order, intermediary, and sub-themes. These themes were compared against the raw data, with analysis continuing until no new themes were created. Higher-order themes were organised into either supporting or opposing intervention acceptability. Greater representation was given during analysis to frequently appearing concepts from methodologically robust studies (Noyes & Lewin, 2017). Concepts which appeared rarely, were inadequately explained, or featured in methodologically weaker research were analysed with caution. This thematic synthesis was completed initially by the first author (EB) and then reviewed by a second coder (JF). Noyes et al. (2018) underlined the importance of qualitative researchers demonstrating reflexivity by making transparent preconceptions that could influence data analysis. See Appendix B for the researcher's statement of reflexivity.

Assessment of methodological quality

The first author (EB) evaluated the methodological quality of all studies using the Standard Quality Assessment Criteria for Evaluating Primary Research Papers (QualSyst; Kmet et al., 2004). Qual-Syst is made up of two checklists which are designed to assess quantitative and qualitative studies respectively and is a commonly used instrument in mixed-methods systematic reviews (e.g., Coombes et al., 2021). For included studies with mixed-method designs, both checklists are completed. In the current review, each included study was assessed to have met, partially met, or not met criteria that covered design, sampling, methodology, analysis, results, and conclusions. Scores can also be summarised as a percentage score to convey an overall quality measure. Kmet et al. (2004) defined a threshold of ≥ 55% to indicate 'adequate quality', whereas a score of ≤ 54% was deemed a 'low quality' study. However, as overall scores of methodological quality can be reductionist (Noyes et al., 2018), a table conveying the Qual-Syst criteria was created and guided the assessment of each study's contribution to the synthesised findings. A second rater (JF) assessed the methodological quality of 42% of included studies as a reliability check. Disagreements between the raters were discussed until a consensus rating was achieved.

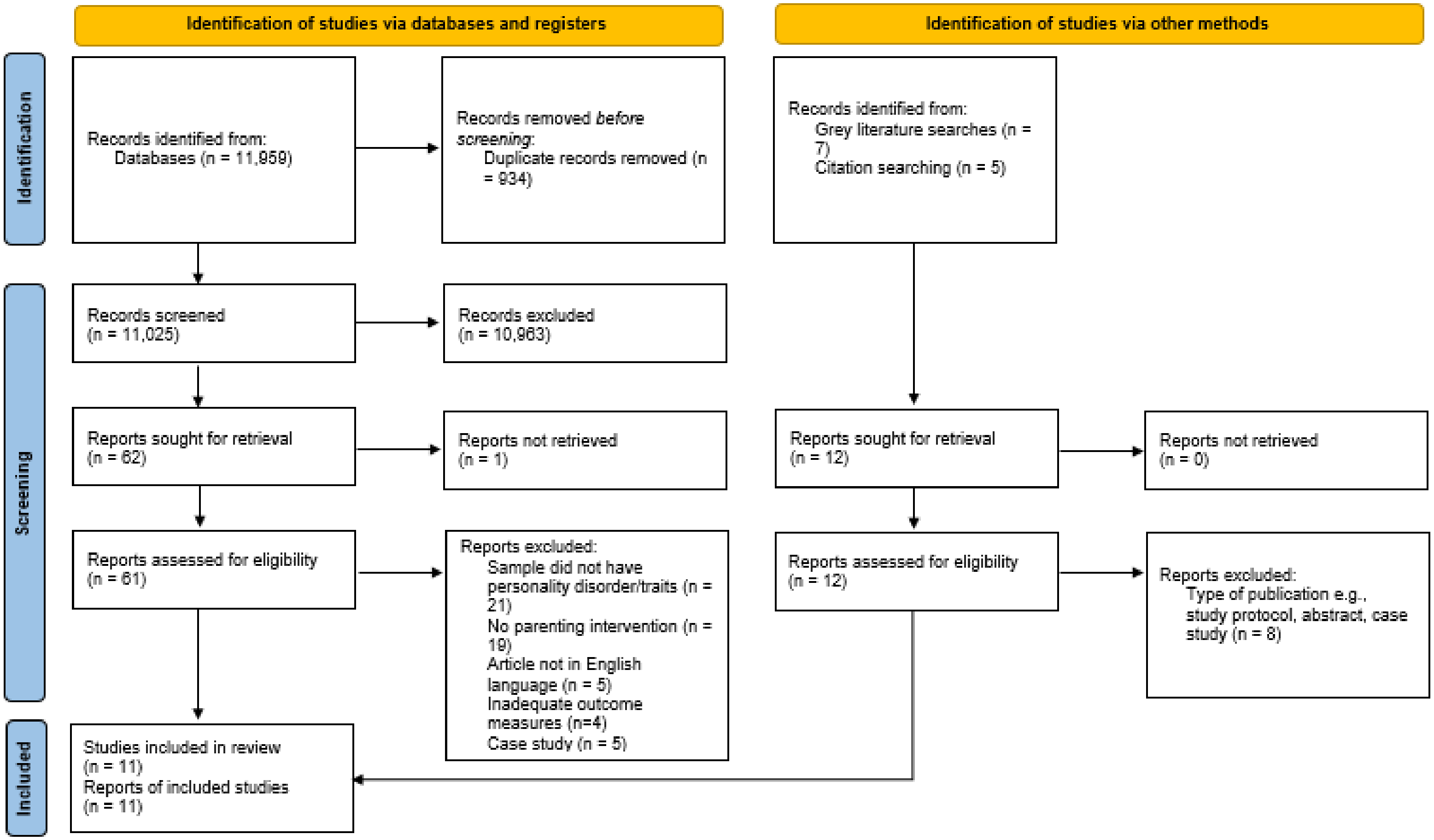
Results

Included Articles

Initially, 11,971 articles were retrieved: 11,959 from the database searches, seven from grey literature searches, and five from hand searching reference lists. After duplicates were removed, titles and abstracts of the remaining articles were screened for relevance. Seventy-three full-text articles were assessed for eligibility (61 identified through databases and 12 via other methods). This led to 11 studies included in this mixed-methods systematic review. Inter-rater agreement for final inclusion in the review was 97%. Computing Cohen's Kappa (κ), a calculation which measures the strength of agreement between two raters while controlling for chance, found an excellent level of agreement (Landis & Koch, 1977), $\kappa = .93$, $p < .001$. Reasons for studies excluded from this review included: the sample not having PD/PD traits, no evidence of a parenting intervention, a case study design, and articles not accessible in English – see Figure 1 for a full PRISMA 2020 flow diagram (Page et al., 2021).

Figure 1

PRISMA 2020 flow diagram of the systematic search (Page et al., 2021)



Study characteristics

The 11 studies included in this review were published between 2006 to 2023 and were conducted in seven countries (Table 3). The studies designs were: quantitative (*n* = 6; 66.7% non-randomised; 50% single group designs with no comparator), qualitative (*n* = 4), and mixed methods (*n* = 1).

The sample size of parents from the 11 studies was 306 (range: 5-98). Participants were aged between 27 and 49 years old with approximately 93.1% identified as female (or identified as mothers). Of the three studies that reported ethnicity (*n* = 88, 28% of overall sample), 60% of participants were classed as White/Caucasian, 34% were classed as Black, Asian and minority ethnic (BAME), and 6% were classed as ‘other’. Ethnicity was not reported for the remaining participants (*n* = 218), which was 72% of the overall sample.

Four studies accepted pre-existing PD diagnoses as the method of classification and inclusion in the study, whereas the remaining seven studies used screening tools to categorise participants. Screening tools used included: the Index of interpersonal problems (Pilkonis et al., 1996), Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First et al., 1997), Standardized Assessment of Severity of Personality Disorder (SASPD; Olajide et al., 2018), McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD; Zanarini et al., 2003), and Standardized Assessment of Personality: Abbreviated Scale (SAPAS; Moran et al., 2003). The breakdown of pre-existing diagnostic presentations was BPD (*n* = 2), BPD traits (*n* = 1), and any PD diagnosis (*n* = 1). Screening tools categorised samples to have met either PD traits (*n* = 2), BPD traits (*n* = 1), PD criteria (*n* = 1), or a mixture of individuals who met either full or partial BPD diagnosis (*n* = 3). Summarising the whole sample demonstrated this review was made up of parents who met criteria for a mix of full or partial BPD diagnosis (27.2%), BPD diagnosis (18.2%), PD traits (18.2%), PD diagnosis (18.2%), and BPD traits (18.2%).

Table 3

Overview of study design, country the study was conducted in, sample, personality disorder (PD) classification, and the intervention trialled in included studies.

Theoretical Underpinning	Reference	Study Design	Country	Sample Characteristics	PD Classification	Intervention
Psychodynamic	**Marziali et al. (2006)**	Qualitative	Canada	Mothers (*n* = 6), no data on age or ethnicity No data on children	PD traits as indicated by the Index of interpersonal problems	Group psychotherapy for Severe personality disorder 35 weekly group sessions
	Gerull et al. (2008)	Quasi experimental; quantitative	Australia	Parents (*n* = 45); Mothers (*n* = 27) and fathers (*n* = 18), *M* = 27.3yrs, no data on ethnicity Children (*n*=?) aged from “infancy to adolescence”	Clinical diagnosis of BPD	The Conversational Model *vs TAU Twice weekly individual, parent-only therapy sessions for 12 months
Behavioural	**Barnicot et al. (2022)**	Pilot randomised control trial; quantitative	United Kingdom (UK)	Mothers (*n* = 34), *M* = 31.2yrs, 53% White, 47% BAME Children (*n* = 34) aged 6-35ms, 41% male	PD as indicated by the SCID-II and SAS-PD	Video-Feedback Intervention to Promote Positive Parenting (VIPP) *vs TAU 6 fortnightly parent-infant therapy sessions (each 90-min)

Theoretical Underpinning	Reference	Study Design	Country	Sample Characteristics	PD Classification	Intervention
	Rohrig (2020)	Pilot study; PhD Thesis; quantitative	United States of America (USA)	Parents (*n* = 6); mother (*n* = 4) and father (*n* = 2), range: 31-48yrs, 100% Caucasian Children (*n* = 6), range: 4-7yrs, 50% male	Clinical diagnosis of BPD traits	Parent-Child Interaction Therapy (PCIT) with emotion regulation strategies from Dialectical Behaviour Therapy (DBT) 16 parent-child weekly sessions
	Francis et al. (2023)	Qualitative	Australia	Mothers (*n* = 13), *M* = 31.8yrs, no data on ethnicity Children (*n* = 15), *M* = 16.4ms	BPD or BPD traits as indicated by MSI-BPD	Mother-infant DBT (MI-DBT) 24 weekly group therapy (each 2.5hrs)
	Renneberg and Rosenbach (2016)	Qualitative	Germany	Mothers (*n* = 15), *M* = 30.2yrs, no data on ethnicity 86% children (*n* = 20) aged <4yrs, 54% male	Clinical diagnosis of BPD	DBT-based Parenting skills 12 weekly group sessions
	Sved Williams et al. (2021)	Pilot study; quantitative	Australia	Mothers (*n* = 98), *M* = 30yrs, no data on ethnicity Children (*n* = 77), *M* = 15.3ms on average, 55% male	BPD or BPD traits as indicated by MSI-BPD and BSL-23	MI-DBT 25 weekly group sessions (each 2.5hrs)
	Sved Williams et al. (2018)	Pilot study; quantitative	Australia	Mothers (*n* = 29), *M* = 32.0yrs, no data on ethnicity Children (*n* = 23), *M* = 15.1ms on average	BPD or BPD traits as indicated by MSI-BPD and BSL-23	MI-DBT 24 weekly group sessions (each 2.5hrs)

Theoretical Underpinning	**Reference**	**Study Design**	**Country**	**Sample Characteristics**	**PD Classification**	**Intervention**
Transtheoretical	**Rogers (2016)**	Pilot study; PhD Thesis; mixed methods	Australia	Mothers (*n* = 7), range: 27-49yrs, no data on ethnicity Children (*n*=11), range: 1-14yrs	BPD traits as indicated by SCID-II	Mindful Parenting Group 12 weekly group sessions (each 2hrs)
	Day et al. (2020)	Randomised feasibility trial; quantitative	UK	Parents (*n* = 48); mothers (*n* = 47) and father (*n* = 1), *M* = 34.9yrs, 60% white, 17% Black Africa/Caribbean, 13% mixed race, 10% other Children (*n* = 47), *M* = 7.8yrs	PD traits as indicated by SAPAS	Helping Families Programme-Modified (HFP-M) *vs TAU 16 weekly individual, parent-only therapy sessions
	Wilson et al. (2018)	Pilot study; qualitative	UK	Mothers (*n* = 5) and clinicians (*n* = 5), no data on age or ethnicity No data on children	Clinical diagnosis of any PD	HFP-M 16 weekly individual, parent-only therapy sessions

**Note*. ms = Months, yrs = years, hrs= hours, *vs TAU = compared to treatment as usual

Methodological quality

Table 4 summarises methodological quality assessments of the 11 studies synthesised. Only one study (Renneberg & Rosenbach, 2016) was assessed to be of low quality (≤ 54%). This qualitative study was limited by study design, sampling, methodology, results, and conclusions and thus was interpreted with caution in this systematic review. All other studies were rated to have met ‘adequate quality’ (≥ 55%). However, amongst the quantitative studies (n = 7), five were considered to have an insufficient sample size, four did not control for confounding variables, and four did not include a comparison control group. Only two studies included blinded investigators and randomisation. These limits of included studies guided the current review’s narrative synthesis and conclusions made. Inter-rater reliability checks found a 91% agreement in Qual-Syst ratings. Cohen’s Kappa (κ) suggested an excellent level of agreement (Landis & Koch, 1977); $\kappa = .81$, $p < .001$.

Within the 11 included studies, two were PhD theses (Rodgers 2016; Rohrig, 2020). Whilst these articles were not peer-reviewed, they were examined in a PhD viva, and as they did not differ from the rest of the studies on the Qual-Syst quality rating, were therefore included.

Table 4

Quality Assessment of the eleven included studies using Qual-Syst tool (Kmet et al., 2004)

Critical Appraisal tool	**Quality Assessment tool criteria**	**Psychodynamic**		**Behavioural**						**Transtheoretical**		
		Marziali et al. (2006)	Gerull et al. (2008)	Barnicot et al. (2022)	Rohrig (2020)	Francis et al. (2023)	Renneberg & Rosenbach (2016)	Sved Williams et al. (2021)	Sved Williams et al. (2018)	Rodgers (2016)	Day et al. (2020)	Wilson et al. (2018)
Qual-Syst: Quantitative Subscale	Question / objective sufficiently described?	-	🟢	🟢	🟢	-	-	🟡	🟡	🟢	🟢	-
	Study design evident and appropriate?	-	🟡	🟢	🟢	-	-	🟡	🟡	🟡	🟢	-
	Method of subject/comparison group selection *or* source of information/input variables described and appropriate?	-	🟡	🟢	🟢	-	-	🟡	🟢	🟢	🟢	-
	Subject (and comparison group, if applicable) characteristics sufficiently described?	-	🟡	🟢	🟢	-	-	🟡	🟡	🟡	🟢	-
	If interventional and random allocation was possible, was it described?	-	🔴	🟡	⚪	-	-	⚪	⚪	⚪	🟡	-

Critical Appraisal tool	**Quality Assessment tool criteria**	**Psychodynamic**		**Behavioural**						**Transtheoretical**		
		Marziali et al. (2006)	Gerull et al. (2008)	Barnicot et al. (2022)	Rohrig (2020)	Francis et al. (2023)	Renneberg & Rosenbach (2016)	Sved Williams et al. (2021)	Sved Williams et al. (2018)	Rodgers (2016)	Day et al. (2020)	Wilson et al. (2018)
	If interventional and blinding of investigators was possible, was it reported?	-	⚪	🟢	🔴	-	-	🔴	🔴	⚪	🟢	-
	If interventional and blinding of subjects was possible, was it reported?	-	⚪	⚪	⚪	-	-	⚪	⚪	⚪	⚪	-
	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? Means of assessment reported?	-	🟢	🟢	🟡	-	-	🟢	🟢	🟡	🟢	-
	Sample size appropriate?	-	🟡	🔴	🔴	-	-	🟢	🔴	🔴	🔴	-

Critical Appraisal tool	**Quality Assessment tool criteria**	**Psychodynamic**		**Behavioural**						**Transtheoretical**		
		Marziali et al. (2006)	Gerull et al. (2008)	Barnicot et al. (2022)	Rohrig (2020)	Francis et al. (2023)	Renneberg & Rosenbach (2016)	Sved Williams et al. (2021)	Sved Williams et al. (2018)	Rodgers (2016)	Day et al. (2020)	Wilson et al. (2018)
	Analytic methods described/justified and appropriate?	-	🟡	🟡	🟢	-	-	🟢	🟢	🟢	🟢	-
	Some estimate of variance is reported for the main results?	-	🟢	🟢	🔴	-	-	🟢	🟢	🔴	🟢	-
	Controlled for confounding?	-	🔴	🔴	🟡	-	-	🔴	🟡	🔴	🟡	-
	Results reported in sufficient detail?	-	🟢	🟡	🟢	-	-	🟢	🟡	🟢	🟢	-
	Conclusions supported by the results?	-	🟢	🟢	🟢	-	-	🟡	🟢	🟡	🟢	-
Total Qual-Syst: Quantitative Subscale Score		-	63%	73%	67%	-	-	67%	63%	55%	85%	-
Qual-Syst: Qualitative Subscale	Question / objective sufficiently described?	🟢	-	-	-	🟢	🟡	-	-	🟢	-	🟢
	Study design evident and appropriate?	🟡	-	-	-	🟢	🟡	-	-	🟢	-	🟢
	Context for the study clear?	🟢	-	-	-	🟢	🟢	-	-	🟢		🟢

Critical Appraisal tool	Quality Assessment tool criteria	Psychodynamic		Behavioural						Transtheoretical		
		Marziali et al. (2006)	Gerull et al. (2008)	Barnicot et al. (2022)	Rohrig (2020)	Francis et al. (2023)	Renneberg & Rosenbach (2016)	Sved Williams et al. (2021)	Sved Williams et al. (2018)	Rodgers (2016)	Day et al. (2020)	Wilson et al. (2018)
	Connection to a theoretical framework / wider body of knowledge?	🟢	-	-	-	🟢	🟢	-	-	🟢	-	🟡
	Sampling strategy described, relevant and justified?	🟡	-	-	-	🟡	🟡	-	-	🟢	-	🟡
	Data collection methods clearly described and systematic?	🟡	-	-	-	🟢	🟡	-		🟢	-	🟡
	Data analysis clearly described and systematic?	🟡	-	-	-	🟢	🔴	-	-	🟡	-	🟢
	Use of verification procedure(s) to establish credibility?	🟢	-	-	-	🟢	🔴	-	-	🔴	-	🟢
	Conclusions supported by the results?	🟡	-	-	-	🟡	🟡	-	-	🟢	-	🟢
	Reflexivity of the account?	🔴	-	-	-	🔴	🔴	-	-	🔴	-	🔴
Total Qual-Syst: Qualitative Subscale Score		65%	-	-	-	80%	45%*	-	-	75%	-	75%

Note. Key: ●Yes, ●Partial, ●No, ●Not applicable, - unable to be rated due to different methodology; * Denotes assessed to be of low quality (≤ 54%) on Qual-Syst tool.

Question one: What parenting interventions have been trialled in parents with PD/PD traits?

Studies included (*n* = 11) were grouped by theoretical underpinning of the parenting intervention (Table 3). Appendix C details descriptions of each parenting intervention trialled in the included studies (e.g., session content and goal of the intervention). Two studies provided interventions informed by psychodynamic principles. Gerull et al., (2008) delivered twice weekly parent-only conversation model psychotherapy. Marziali et al., (2006) provided 35 weekly sessions of group psychotherapy, although it was unclear whether this was parent-only or included the child.

Of the six studies that delivered an intervention informed by behavioural principles, the majority (67%) provided a Dialectical Behavioural Therapy (DBT) based parenting group intervention. Mother-infant DBT (MI-DBT) was trialled in three studies (Francis et al., 2023; Sved Williams et al., 2018; Sved Williams et al., 2021) and was provided weekly for 24-25 weeks, with each session lasting two and a half hours. Renneberg and Rosenbach (2016) provided a DBT-based parenting skill group which was provided weekly for 12 sessions. The two remaining studies provided therapy outside of a group-context, Rohrig (2020) provided 16 sessions of weekly Parent-Child Interaction Therapy (PCIT) with additional emotion regulation strategies from DBT, and Barnicot et al. (2022) provided six fortnightly Video Feedback Interaction to Promote Positive Parenting (VIPP) which each lasted for 90 minutes. All behavioural parenting interventions incorporated the child into the therapeutic work.

The remaining studies investigated parenting interventions informed by transtheoretical concepts. Rodger (2016) investigated a mindfulness informed parenting intervention provided in a parent-only group format of twelve weekly sessions. Two studies (Day et al., 2020; Wilson et al., 2018) explored the use of the Helping Families Programme-Modified (HFP-M), a 16-week parent-only therapy provided in their homes.

Question two: Are parenting interventions effective at improving parent, child, and parent-child outcomes in parents with PD/PD traits?

Table 5 displays the statistical data from the seven studies that investigated parent, child, and parent-child outcomes. In line with SWiM analysis guidelines (Campbell et al., 2020), all outcome measures were converted to a standardised metric (Cohen's d effect size) and interpreted as small (*d* = 0.2), medium (*d* = 0.5), and large (*d* = 0.8; Cohen, 1988).

Parent outcomes

Parental mental health

Five studies (Day et al., 2020; Rodgers, 2016; Rohrig, 2020; Sved Williams et al., 2018; Sved Williams et al., 2021) investigated parental mental health outcomes. Of those studies, four investigated whether BPD symptomology reduced following the parenting intervention. Two pilot studies limited by their non-randomised single design (Sved Williams et al., 2018; Sved Williams et al., 2021) demonstrated BPD symptom scores to significantly decrease with a medium to large effect size immediately following MI-DBT. Two studies limited by their lower quality statistical analysis, small sample sizes, and lack of variance measurements reported, supported the trend of parenting interventions reducing BPD symptomology (Rodgers, 2016; Rohrig, 2020).

Parental mood (anxiety and depression) was also investigated in three studies. Two non-randomised, single design pilot studies (Sved Williams et al., 2018; Sved Williams et al., 2021) found both anxiety and depression scores improved for parents after engaging with MI-DBT with medium to large effect sizes. Contrastingly, Rodgers (2016) found depression scores to improve but not parental anxiety following a mindfulness informed parenting intervention – although as this study had a small sample size (*n* = 7) and was rated as low quality for statistical analysis, this should be interpreted with caution. Finally, Day et al. (2020), a small-scale feasibility study, measured overall mental health and found no significant differences following HFP-M.

Parenting outcomes

Four studies (Day et al., 2020; Rodgers, 2016; Sved Williams et al., 2018; Sved Williams et al., 2021) provided insight into how parenting interventions may impact parenting abilities and experiences. Both Sved Williams et al. (2018) and Sved Williams et al. (2021), non-randomised, single design studies, assessed parental competency pre and post MI-DBT. Despite Sved Williams et al. (2021) finding a significant difference in parenting efficacy, satisfaction, and interest with a large effect size, this was not reported by Sved Williams et al. (2018). Day et al. (2020) investigated parental satisfaction although found no significant difference following the feasibility trial of HFP-M. Similarly, no significant differences were found in parental reported stress or distress following two parenting interventions (Rodgers, 2016; Sved Williams et al., 2021). Furthermore, Day et al. (2020) found no significant differences in how the parents' viewed their own parenting style in relation to types of parenting behaviour and discipline following HFP-M.

On the other hand, measurements of parental reflective functioning did improve following MI-DBT with medium to large effect sizes in two non-randomised, single design studies (Sved Williams et al., 2018; Sved Williams et al., 2021). Although the results from Rodgers (2016) contrasted these findings, this again should be interpreted with caution due to low quality assessment scores for statistical analysis and small sample size. It is worth noting, that though Sved Williams et al. (2018) and Sved Williams et al. (2021) found an increase in reflective functioning following MI-DBT, the scores on average were still considered 'pre-mentalising' ability.

Parent-child interaction outcomes

Four studies investigated the quality of the parent-child interaction pre and post the parenting interventions (Barnicot et al., 2022; Gerull et al., 2008; Sved Williams et al., 2018; Sved Williams et al., 2021). Gerull et al. (2018) found following individual psychotherapy, parents perceived the quality of their relationship with their child to have improved with a small effect size. However, this finding is limited by the study's data collection method (self-report questionnaires).

Sved Williams et al. (2018) investigated the impact that MI-DBT had on parent-infant play. Clinicians assessed the carers sensitivity and responsiveness during the play interaction, as well as the infant's cooperativeness using the Infant CARE-Index (ICI; Crittenden, 1981). This study found that following MI-DBT, the parent-infant dyadic relationship had significantly improved with a large effect size. In contrast, Sved Williams et al. (2021) measured the parent-child interaction quality using Nursing Child Assessment Satellite Training, Teaching Scale (NCAST; Oxford & Findlay, 2013) and found no significant changes in scores following 25 weeks of MI-DBT. Barnicot et al. (2022) investigated the impact of VIPP on clinician rated parental sensitivity and intrusiveness using the Emotional Availability Scale (EAS; Pipp-Siegel & Biringen, 1998). However this study did not report statistical significance due to reduced power and thus limits conclusions of effectiveness.

Child outcomes

Limited data from three studies (Day et al., 2020; Rohrig, 2020; Sved Williams et al., 2021) explored whether parenting interventions improved child outcomes. When exploring the children’s level of disruptive behaviour, neither Rohrig (2020) nor Day et al. (2020) found statistically significant differences post-intervention. No significant differences were found in the children’s level of internalising symptomology (Day et al., 2020) nor social and emotional development (Sved Williams et al., 2021).

Table 5

Quantitative pre-post outcome measures of parenting interventions

Theoretical underpinning	Reference	Parent outcomes	Child outcomes	Parent-child outcomes
Psychodynamic	Gerull et al. (2008)			**Improved:** - Quality of relationship with child (SAS-SR; $p = .009$, $d = 0.44$) compared to TAU
Behavioural	Barnicot et al. (2022) **Statistical significance not reported due reduced power*			**No statistically significant change:** - Parental sensitivity from baseline to post-intervention (EAS, $d = 0.33$, 95% CI = 0.44 – 1.08) compared to TAU - Parental sensitivity from baseline to follow up (EAS, $d = 0.37$, 95% CI = 0.54 – 1.24) compared to TAU - Parental non-intrusiveness from baseline to post-intervention (EAS, $d = 0.15$, 95% CI; -.62 – .90) compared to TAU - Parental non-intrusiveness from baseline to follow up (EAS, $d = 0.44$, 95% CI; 0.47 – 1.31) compared to TAU
	Rohrig (2020) **Statistical significance not reported due to small sample size*	**No statistically significant change:** - Emotion regulation (DERS-SF; SMD = 0.67-3.16)	**No statistically significant change:** - Child disruption (ECBI**;** SMD = 2.94-5.88) - Emotion regulation (ECBI; SMD = -1.52-1.59)	

Theoretical underpinning	Reference	Parent outcomes	Child outcomes	Parent-child outcomes
	Sved Williams et al. (2021)	**Improved:** - BPD symptoms (BSL-23; $p = .007$, $d = 0.52$; MSI-BPD; $p < .001$, $d = 0.75$) - Depression (EPDS; $p < .001$, $d = 0.77$) - Anxiety (BAI; $p = .002$, $d = 0.61$) - Parenting competence (PSOC; $p < .001$, $d = 0.87$) - Reflective functioning (PRFQ, $p < .002$, $d = 0.61\text{-}0.93$) **No statistically significant change:** - Parental stress, (PSI; $p > .05$, $d = 0.08\text{-}0.32$)	**No statistically significant change:** - Infants social-emotional development (ASQ-SE2)	**No statistically significant change:** - Clinician rated measure of mother-infant interactions (NCAST, $p > .05$, $d = 0.06\text{-}0.26$)
	Sved Williams et al. (2018)	**Improved:** - BPD symptoms (BSL-23, $p = .013$, $d = 0.85$; MSI-BPD, p=.014, d=.40) - Depression (EPDS, $p = .006$, $d = 0.95$) - Anxiety (BAI, $p = .004$, $d = 1.0$) - Reflective functioning (PRFQ, $p = .003\text{-}.009$, $d = 0.90\text{-}1.04$) **No statistically significant change:** - Parenting competence (PSOC, $p > .05$, $d = 0.80$)		**Improved:** - Dyadic relationship quality (CARE, $p = .004$, $d = 0.93$)
Transtheoretical	Rodgers (2016) _*Effect sizes unable to be calculated from data provided_	**Improved:** - BPD symptoms (PDQ-4; $p < .05$) - depression (DASS; $p < .05$) - Emotion regulation (DERS; $p < .05$) - Reflective functioning (PFRQ; $p < .05$) **No statistically significant change:** - BPD severity (BEST; $p > .05$)		

Theoretical underpinning	Reference	Parent outcomes	Child outcomes	Parent-child outcomes
		- Anxiety (DASS; $p > .05$) - Parental stress (PSI; $p > .05$) - Parental Reflective Functioning (PRFQ; $p > .05$)		
	Day et al. (2020)	**No statistically significant change:** - Parenting satisfaction (KPSS, $d = 0.40$, 95% CI −0.30 - 1.10, $p = .331$) compared to TAU. - Parental mental health (SCL-27; $d = −0.10$, 95% CI -0.80 - 0.60, $p = .666$). - Parenting Behaviour (PS – $d = 0.00$, CI -0.70 to 0.70, $p = .977$)	**No statistically significant change:** - Behavioural problem severity (ECBI Intensity, $d = 0.40$, 95% CI −0.30 - 1.00, $p = .585$ - .233) - Internalising symptomology (CBCL-Int; $d = 0.20$, 95% CI -0.50 to 0.90, $p = .601$)	

Note. SMD: standard mean difference; Beck Anxiety Inventory (BAI), (Beck et al., 1988); Borderline Symptom List 23 (BSL-23), (Bohus et al., 2009); Depression Anxiety Stress Scales (DASS), (Lovibond & Lovibond, 1995); Edinburgh Postnatal Depression Scale (EPDS), (Cox et al., 1987); Eyberg Child Behavior Inventory (EBCI), (Eyberg, 1978); Kansas Parental Satisfaction Scale (KPS), (James et al., 1985); McLean Screening Instrument for BPD (MSI-BPD), (Zanarini et al., 2003); Nursing Child Assessment Satellite Training, Teaching Scale (NCAST), (Oxford & Findlay, 2013); Parent Reflective Functioning Questionnaire (PRFQ), (Luyten et al., 2017); Parenting Sense of Competence Scale (PSOC), (Gibaud-Wallston & Wandersman, 1978); Parenting Stress Index (PSI), (Abidin, 1995); Symptom Checklist-27 (SCL-27), (Hardt & Gerbershagen, 2001); The Child Behavior Checklist (CBCL-I), (Achenbach, 1999); The Emotional Availability Scale (EAS), (Pipp-Siegel & Biringen, 1998); The Infant CARE-Index (ICI), (Crittenden, 1981); The Parenting Scale (PS), (Arnold et al., 1993); The Social Adjustment Scale (SAS–SR), (Weissman & Staff, 1999).

Question three: Are parenting interventions considered feasible to deliver for parents with a diagnosis of PD/PD traits?

Of the eight studies that incorporated quantitative data, six documented at least one feasibility metric (Barnicot et al., 2022; Day et al., 2020; Rodgers, 2016; Rohrig, 2020; Sved Williams et al., 2018; Sved Williams et al., 2021). Three studies (Barnicot et al., 2022; Day et al., 2020; Sved Williams et al., 2018) documented the rates of successful participant recruitment to the intervention trial. Recruitment rates ranged from 45.3% to 64% (*M* = 54.4%), with the VIPP intervention (Barnicot et al., 2022) reporting the lowest recruitment rate and MI-DBT (Sved Williams et al., 2018) the highest. All three studies performed higher than the feasibility criteria considered to denote an 'adequate' recruitment rate (≥ 40%). The feasibility trial (Day et al., 2020) of HFP-M documented that service users were referred from a range of services (adult mental health services, child mental health services, and children's social care).

The most frequently reported feasibility metric (reported in five studies) was the retention of participants throughout the intervention (Barnicot et al., 2022; Day et al., 2020; Rodgers, 2016; Sved Williams et al., 2018; Sved Williams et al., 2021). Retention rates ranged from 66.7% to 85.7% (*M* = 76.1%), with the HFP-M intervention (Day et al., 2020) reporting the lowest retention rate and the Mindful Parenting Group (Rodgers, 2016) the highest. Regardless, all studies performed higher than the feasibility criteria considered to denote an 'adequate' post-intervention retention rate (≥ 65%).

A further three studies reported information on participants' attendance to the intervention (Barnicot et al., 2022; Rodgers, 2016; Rohrig, 2020). Two studies (Barnicot et al., 2022; Rodgers, 2016) reported an average attendance to the intervention (*M* = 74.3%), both demonstrating feasible attendance rates (≥ 70%). Rohrig (2020) noted the number of missed sessions varied from two to ten (out of 16), although due to limits of reporting, an overall average of participant attendance was unable to be computed for this study.

Question four: Are parenting interventions considered acceptable to parents with PD/PD traits?

Five studies provided qualitative data which explored the parents' experiences of the parenting intervention (Francis et al., 2023; Marziali et al., 2006; Renneberg & Rosenbach, 2016; Rodgers, 2016; Wilson et al., 2018). This was thematically synthesised into evidence supporting participant acceptability (Table 6) and evidence opposing participant acceptability (Table 7). These were further synthesised into intermediary themes and subthemes. Narrative descriptions of the themes are provided and supplemented with example quotes to expand on context and meaning. The intermediary themes and subthemes were often supported by multiple studies. Table 8 demonstrates the distribution of themes across the five included studies.

Evidence supporting acceptability

Three higher-order themes were identified as evidence in support of participant acceptability.

Table 6

Analytical theme structure of evidence supporting acceptability.

	Higher order theme	Intermediary themes	Sub themes
Evidence supporting acceptability			
	Meaningful changes in parent		
		Relational	
			Parent-child
			Significant other
		New insights	
			Self
			Distress
			Parenting role
		Skills and strategies	
			Emotion management
			Mentalisation
			Parenting practices
			Communication
	Meaningful changes in child		
		Skills	
		Mental wellbeing	
	Facilitators of change		
		Group characteristics	
			Trust and safety
			Shared understanding
		Facilitator qualities	
		Specialised to need	

Higher-order theme one: Meaningful changes in parents

Participants experienced a notable change in themselves following the parenting intervention. These post-intervention changes were broken down into intermediary themes of relational, new insights, and skills and strategies.

Relational

All studies noted participants expressing that the intervention led to positive changes in their relationships. These changes were noted to exist within the parent-child relationship.

> "I'm always present, there for him physically, but to be there for him – to be mindful with him as well. And I'm able to do that more since having been in the group (Jessica) " – (Rodgers, 2016, p.147)

Relational changes were also reported with other significant people in their lives.

> "Instead of overcompensating for their differences, many women began prioritising friendships with people who accepted them […] and no longer doing things they did not want to do simply for the other person's sake" – (Francis et al., 2023, p.1255)

New insights

All studies found participants experienced a change in their level of understanding, for example, in relation to themselves.

> "I learned a lot about myself" – (Renneberg & Rosenbach, 2016, p.5)

Furthermore, the parenting interventions improved insights into the participants' distress.

> "I tend to internalise everything and then things just boil over…which might result in drinking or overdosing or that sort of thing." – (Francis et al., 2023, p.1250)

Finally, research highlighted a shift within the participants' understanding of their parenting role.

> "If I'm calmer and settled then obviously he's gonna be a bit more calm and settled." – (Wilson et al., 2018, p.3)

Skills and strategies

All studies reported that post-intervention, participants felt they had learnt new skills and coping strategies. One of the newly developed skills noted was categorised as a change in emotion management.

> "Participants were beginning to take control of their life situations, including more constructive management of emotions." – (Marziali et al., 2006, p.406)

Mentalisation was a further area where research expressed participants had gained new skills.

> "A bit more aware of what the kids are feeling or thinking […] I give more, sort of leeway to my youngest child because he's got special needs sort of thing. I try to process that a bit more. I go "okay he's not necessarily trying to wind me up", and sort of be aware that he's got his own, sort of world that isn't necessarily the same as everyone else's" – (Rodgers, 2016, p.141)

Five studies also described a shift in the participants' skills linked to parenting practices.

> "As a result, parents felt a greater sense of agency in their parenting behaviour, more confidence, and an increased sense of hope. "I can see that it has worked and see the changes." (Parent 2)" – (Wilson et al., 2018, p.3)

Finally, research noted communication skills to improve following the parenting intervention.

> "I am now able to assert myself" – (Renneberg & Rosenbach, 2016, p.5)

Higher-order theme two: Meaningful changes in child

Participants reported that parenting interventions resulted in noticeable changes in their children, which were categor*is*ed into intermediate themes related to the child's skills and mental wellbeing.

Skills

Three studies documented that following the intervention, parents experienced their children to have developed new skills.

> "Many mothers described […] improvements in their children's emotion regulation and interpersonal skills." – (Francis et al., 2023, p.1252)

Mental wellbeing

Two studies detailed participants recognising the parenting intervention had a positive impact on their child's mental health and wellbeing.

> "Not only me but also my child feels better." – (Renneberg & Rosenbach, 2016, p.5)

Higher-order theme three: Facilitators of change

This theme captures the aspects of the parenting interventions that parents perceived as catalysts for change. These facilitators of change were grouped into intermediary themes of group characteristics, facilitator qualities, and individualised support. One intermediary theme ('therapeutic skills') was excluded from the final theme framework due to its support from only one low-quality study (Renneberg & Rosenbach, 2016).

Group characteristics

All studies that delivered the intervention in a group format indicated that parents experienced certain qualities of the group to invite change. More specifically, two studies felt trust and safety created in the group setting was beneficial.

> "Almost all of the participants had welcomed the opportunity to discuss, within the group, feelings and issues that they had been reticent to reveal to their own child welfare workers for fear of negative consequences that might result in having their children removed from their care." – (Marziali et al., 2006, p.406)

Additionally, a shared understanding from other parents in the same position was noted to promote change.

> "Overall, the participants appreciated being in a group of mothers who shared similar parenting experiences […] They felt that they had met new people who truly understood them." – (Marziali et al., 2006, p.406)

Facilitator qualities

Wilson et al. (2018), the only study which provided individual therapy, indicated that parents' valued qualities of the facilitator, which they felt had contributed to change.

> "Parents attached value to perceived therapist personal qualities such as 'encouraging', 'non-judgemental', 'open', 'honest', 'not patronising' and 'patient'." – (Wilson et al., 2018, p.3)

Specialised to need

Two studies acknowledged parents' appreciation of the intervention being specialised to parenting.

> "The information was very easy to implement as it was linked to the child." – (Renneberg & Rosenbach, 2016, p.5)

Evidence opposing acceptability

One higher-order theme was identified as evidence that opposed participant acceptability (Table 7).

Table 7

Analytical theme structure of evidence opposing acceptability.

	Higher order theme	**Intermediary themes**	**Sub themes**
Evidence opposing acceptability			
	Challenging aspects		
		Relationship to help	
			Initial pessimism
			Frustration
		Progress	
			Further support needed post-intervention
			Difficulties with new skills
		Set-up	
			Endings
			Techniques

Higher-order theme one: Challenging aspects

Several aspects of the parenting intervention were considered less acceptable for the parents, including the following: relationship to help, progress, and set-up.

Relationship to help

In three studies, challenges of engaging with the intervention facilitator were expressed. One obstacle was a frustration towards the facilitator.

> "In the first six group sessions, there were many instances in which group member frustration escalated in the form of complaints about the co-facilitators […] as none provided 'answers'." – (Marziali et al., 2006, p.405)

Another factor captured was an initial pessimism about the relationship with the facilitator.

> "Parents felt they had acquiesced to professional advice and intervention. Although often feeling pessimistic, they felt that they had to accept help offered on the clinicians' terms as they would otherwise be seen as uncooperative." – (Wilson et al., 2018, p.3)

Progress

Four studies noted challenges related to progress. For example, two studies described participants feeling that additional support following the intervention would still be needed.

> "Despite these beginning attempts to control maladaptive parenting behaviors, the group members realized that there would be much more to reflect upon and change after the group terminated." – (Marziali et al., 2006, p.406)

Four studies claimed participants had difficulties with applying skills learnt from the parenting intervention in real-life settings.

> “I try to do some mindfulness but that’s difficult with this one around [laughter]”
> – (Francis et al., 2023, p.1251)

Set-up

In most studies, there were concerns raised about the set-up of the intervention. Two studies recounted participants’ concerns about the ending of the intervention and the challenges this invited.

> “Others reflected on the loss of the group.” – (Marziali et al., 2006, p.406)

A further two studies recorded participants’ dissatisfaction with therapeutic techniques used in the intervention.

> “I was embarrassed during the role play − Too much to read − I didn’t understand the self-care, was too complicated” – (Renneberg & Rosenbach, 2016, p.5)

Table 8

Distribution of thematic synthesis themes across included papers

	Higher-order themes	Intermediary themes	Sub themes	Distribution of themes across papers				
				Rodgers (2016)	Francis et al. (2023)	Renneberg & Rosenbach (2016)	Wilson et al. (2018)	Marziali et al. (2006)
Evidence supporting acceptability	Meaningful changes in parent	Relational	Parent-child	✓	✓	✓	✓	
			Significant other	✓	✓	✓	✓	✓
		New insights	Self	✓	✓	✓		✓
			Distress	✓	✓	✓	✓	
			Parenting role	✓	✓	✓	✓	
		Skills and Strategies	Emotion management	✓	✓	✓	✓	✓
			Mentalisation	✓	✓	✓		
			Parenting practices	✓	✓	✓	✓	✓
			Communication	✓	✓	✓		
	Meaningful changes in child	Skills			✓	✓	✓	
		Mental wellbeing			✓	✓		

	Higher-order themes	Intermediary themes	Sub themes	Distribution of themes across papers				
				Rodgers (2016)	Francis et al. (2023)	Renneberg & Rosenbach (2016)	Wilson et al. (2018)	Marziali et al. (2006)
	Facilitators of change	Group characteristics	Trust and safety			✓		✓
			Shared understanding	✓	✓	✓		✓
		Facilitator qualities					✓	
		Specialised to need				✓	✓	
Evidence opposing acceptability	Challenging aspects of parenting interventions	Relationship to help	Initial pessimism				✓	
			Frustration			✓	✓	✓
		Progress	Further support needed post-intervention		✓			✓
			Difficulties with new skills	✓	✓	✓		
		Set-up	Endings		✓			✓
			Therapeutic techniques			✓	✓	

Discussion

This mixed-methods systematic review aimed to first examine parenting interventions that had been trialled within parents with PD/PD traits, and second, to consider the feasibility, acceptability, and effectiveness of these parenting interventions from the available data. Overall, 11 studies were identified to explore parenting interventions in parents with PD/PD traits. A finding that reiterates the existing evidence base for parenting interventions for parents with PD to be sparse (Byrne, 2021). Despite the field still being in its infancy, six studies provided evidence that parenting interventions may be feasible, and five studies supported that parenting interventions may be acceptable to parents with PD/PD traits. Seven studies were synthesised to assess effectiveness, some of which showed trends towards the interventions being effective; nevertheless, most studies lacked appropriate sample sizes, limiting the ability to make meaningful conclusions.

Effectiveness

Within the seven studies that provided quantitative data, the effectiveness of parenting interventions in parents with PD was considered by synthesising parent, parent-child, and/or child outcomes. Assessing the methodological quality of the included studies using the Qual-Syst tool (Kmet et al., 2004) demonstrated five studies had insufficient sample sizes, and four studies did not control for confounding variables or include a comparison control group. Therefore, due to statistical and methodological limitations of the current evidence base (e.g., small sample sizes and reduced experimental control due to non-randomised and single study designs) the conclusions are tentative and rather capture trends of effectiveness. A frequently investigated parent outcome was parental mental health, which was demonstrated to improve for BPD symptomology and parental mood (anxiety and depression) in two studies investigating MI-DBT (Sved Williams et al., 2018; Sved Williams et al., 2021). However, the absence of follow-up data collection timepoints and the non-randomised single study pilot designs limit these conclusions of effectiveness. Nevertheless, the trend towards a reduction in BPD symptomology was also supported by two smaller and lower-quality studies that delivered a PCIT and DBT informed intervention (Rohrig, 2020) and a mindful parenting group (Rodgers et al., 2020), respectively. Rodgers et al. (2020) also found depression scores reduced following the intervention.

Contrastingly, Day et al. (2020) conducted a small-scale feasibility trial investigating HFP-M and found no significant difference in overall parental mental health scores. The absence of improvement could be explained by the choice of outcome measure. The SCL-27 (Hardt & Gerbershagen, 2001) evaluates a broad range of mental health difficulties (e.g., vegetative, agoraphobic, pain, and social phobic symptoms), symptomology which may not be relevant to how a parenting intervention could target and invite change in mental health presentations. Alternatively, this difference may simply suggest HFP-M is not effective at improving parental mental health. DBT is a well-recognised, validated, and highly effective treatment for individuals with PD (Stiglmayr et al., 2014). Therefore, this may indicate that the pilot trials investigating MI-DBT may be more targeted towards improving parental mental health than HFP-M. Another consideration is that MI-DBT was provided for 10-weeks longer than HFP-M. Most specialised treatments for PD typically last between one to three years (Biskin, 2015), often due to presenting complexity and interpersonal difficulties which can interfere with accessing and engaging with treatments (Clarkin et al., 2015). Although speculative, it could be that the MI-DBT treatment length was better suited to individuals with PD. Finally, as Day et al. (2020) used a feasibility study design it is possible that the small sample size impacted the statistical power to sufficiently detect significant changes in parental mental health.

Another commonly reported parental outcome was parenting qualities. In one non-randomised single design study of MI-DBT (Sved Williams et al., 2021), parents reported increased parenting competence, rating themselves higher on parenting efficacy, satisfaction, and interest. Contrastingly, a similar study conducted by the same research team (Sved Williams et al., 2018) investigated parental competence and failed to demonstrate a statistically significant difference. It is possible this could be due to the smaller sample size of the 2018 study. This is supported by the fact despite not meeting significance, Sved Williams et al. (2018) documented a large effect size, although this should be interpreted with caution as small sample sizes can inflate effect sizes (Button et al., 2013). Although parenting interventions may potentially improve parental competence, no evidence was found in support of parenting interventions reducing parental stress (Rodger, 2016; Sved Williams et al., 2021) or self-reported parenting style (Day et al., 2020).

Having impaired reflective functioning can impact a parent's capability to understand their child's internal experience (mentalisation; Fonagy, 2002; Fonagy et al., 2003) and therefore interfere with appropriate parental behaviour and responses (Byrne, 2021). Two studies found parents' reflective functioning improved following MI-DBT (Sved Williams et al., 2018; Sved Williams et al., 2021). Despite the improvement, results found on average the level of parental reflective functioning remained below mentalisation capacity ('pre-mentalising mode') indicating that a deficit in understanding their children's mental state persisted. This could suggest that following 25-weeks of MI-DBT, parents with PD might still employ less appropriate parental behaviours and responses. One of the unanswered questions from this review is whether parenting interventions alone are sufficient at targeting mentalisation to increase positive parenting practices, or whether if the interventions were provided for longer, reflective functioning would have continued to develop and a capacity to mentalise could have been reached by parents. Mentalisation-based treatment programmes typically last for 12 to 18 months (Bateman & Fonagy, 2010) and therefore one could argue it is not surprising that the parents' capacity to mentalise was not achieved in 25 weeks (5.8 months).

Parent-child interaction outcomes were also investigated. One study (Gerull et al., 2018) did so through a self-report questionnaire and found parents felt their relationship had improved with their child. However, relying on self-report can introduce response biases which reduced the internal validity of this finding. The remaining studies provided a more objective assessment of the parent-child relationship through observations rated by clinicians. Barnicot et al. (2022) computed ratings from blinded clinicians, a method which reduces researcher bias and improves internal validity. However, this study failed to report statistical significance which limits the conclusions of whether VIPP was effective at improving parent-child interactions in parents with PD. Two further studies, investigating MI-DBT, rated video-recorded play interactions. Interestingly, Sved Williams et al. (2018) found MI-DBT improved the parent-infant dyadic relationship, whereas Sved Williams et al. (2021) did not support this finding. One hypothesis that may explain these contrasting findings could be the difference in rating tools used, with Sved Williams et al. (2018) using the ICI and Sved Williams et al. (2021) using the NCAST. The NCAST rates parents on multiple subscales such as cue sensitivity and responsiveness to distress. Although the NCAST is a well-established assessment of mother-infant relationships (Ransone et al., 2018), it is yet to be validated as a sensitive measure of change over time in mothers with PD and therefore this non-significant result could be due to measurement inadequacies. That said, it may also indicate these mothers simply required additional input following MI-DBT to improve the parent-child relationship. Nevertheless, taken together, this review implies a mixed picture of whether parenting interventions lead to changes in the parent-child interaction.

Limited studies reported quantitative data on child outcomes following parenting interventions, despite the relatively robust evidence base suggesting that children with parents with PD can experience significant psychosocial challenges (Barnow et al., 2006; Blankley et al., 2015; Eyden et al., 2016; Hobson et al., 2005; Macfie, 2009). Of the three studies that did investigate the impact on children, no significant differences were found in the children's levels of disruptive behaviour, internalising symptomology, or social and emotional development. On the surface this seems to suggest from the data available, parenting interventions were not effective at improving child wellbeing. This may be because in most of the research trials (Rohrig, 2020; Sved Williams et al., 2021) child outcomes were secondary to the primary aim of improving parenting practices. On the other hand, the absence of improved child outcomes may be because the improvements in parents were not clinically significant enough to lead to changes in their children, e.g., parental reflective functioning remaining in pre-mentalising mode (Sved Williams et al., 2021). It is worth considering the time-points of data collection. It could be argued that changes that occurred in parents, such as parental mental health, may not initiate immediate change in children's behaviour. Stable and reliable parental responses are important factors in promoting child development (Centers for Disease Control Prevention, 2019). Therefore, we may expect changes to the children's wellbeing to follow a prolonged experience of positive parenting practices and thus may be more likely to be documented in follow up intervention time points (e.g., six months or one year after the intervention).

Feasibility

Six studies provided insight into the feasibility of parenting interventions in parents with PD/PD traits. Three studies found an adequate recruitment rate to the intervention trial (54.4%) which surpassed feasibility criteria. Participant retention (76.1%) was the most reported metric and was found across five studies to exceed feasibility criteria. The remaining feasibility data retrieved was limited with only two studies reporting participant attendance (74.3%). Although drawing reliable conclusions from a small number of studies is not possible, these results begin to demonstrate that parenting interventions can be feasible, and further highlight the need for research to continue recording feasibility data.

Demonstrating parenting interventions to have feasible retention and attendance within parents with PD is an important finding, especially given that previous research has suggested parents with PD to have lower levels of engagement and higher levels of concerns about engaging with services (Blankley et al., 2015; Wilson et al., 2018). This suggests despite potential barriers of engagement, in the current sample, most parents were willing and able to participate in the interventions. Nevertheless, it is worth considering that feasibility metrics recorded from an intervention conducted in a research trial context can vary from feasibility of an intervention applied in a real-life clinical setting (Bowen et al., 2009). That is, the research context can function as a facilitator and barrier to feasibility, for example if incentives are given to participants this may inflate feasibility, whereas aspects of the research trial (e.g., administering a large battery of outcome measures) may increase participant burden and reduce feasibility.

Acceptability

Thematically synthesising qualitative data from five studies demonstrated a variety of evidence in support of participant acceptability. Results found that participants valued changes they noticed within themselves and their children following the interventions, as well as identifying specific aspects of the parenting intervention they found helpful (e.g., group characteristics, and facilitator qualities). Most themes were identified as universal across the included studies. Analysis also noted aspects of the intervention participants found challenging, such as: building relationships with professionals, the level and speed of progress following the intervention, and the set-up of the intervention. When considering this analysis of acceptability, it is worth noting that in the five articles synthesised, the researchers interviewed participants that had completed the intervention. Therefore, one could speculate that these participants may have had a bias favouring acceptability. Nevertheless, as the feasibility data indicates high participant retention rates, this further supports acceptability.

Despite two studies (Day et al., 2020; Rohrig, 2020) suggesting quantitative acceptability data was captured, no quantitative studies used questionnaires which were deemed a sufficient measure of acceptability by the current research team. Evaluating the measures used, Therapy Attitude Inventory (TAI; Eyberg, 1993) and Working Alliance Inventory-Short Form (WAI-SF; Horvath & Greenberg, 1989), found numerous additional concepts, such as the therapist-patient bond or parent-child bond, to be summarised into one overall acceptability score. It was therefore not considered a ‘pure’ acceptability measurement and was not included in the current review results. However, both studies did interpret the questionnaire scores as supporting participant acceptability.

Integrating qualitative and quantitative syntheses

Overall, qualitative and quantitative data demonstrated concordant findings. Both noted improvements in parent and parent-child interaction outcomes, and high feasibility parameters aligned with parents finding the interventions acceptable. A contradictory finding between qualitative and quantitative studies was within child outcomes, with no significant improvements noted in quantitative research yet, qualitative accounts narrating new skills developing and improvements in children’s wellbeing. This disparity in findings could be due to numerous reasons, including that the quantitative studies had questionable levels of statistical power to detect statistical significance. Further, it may be that the measures used within quantitative research did not capture the changes parents valued. Questionnaires elicit responses about specific behaviours and constructs deemed relevant. Collecting qualitative data may have provided a richer, more open-ended, and in-depth exploration of change in the children’s day-to-day lives. An alternative explanation for these differing findings could be that the changes parents noted qualitatively, may not denote a clinically significant or statistically significant change, and thus we cannot be sure that the qualitative reported changes are real, reliable, and not due to chance.

Limits of the existing evidence base

Limitations of the existing evidence base affect the overall conclusions that can be drawn from this review. One constraint is the lack of diagnostic specificity provided about participants within the included studies. Four studies described participants as having either a PD or PD traits, offering no further information on which specific PD/PD traits the samples presented with. Further, these studies analysed the effect of parenting interventions on these group of parents as if they were homogenous, despite the DSM-5 detailing PD to consist of 10 distinct disorders. It is worth noting that the only PD that received differentiation in the included studies was BPD. This reduces the ability of the current review to ascertain whether it is a range of parents with differing PD diagnoses who find parenting interventions effective, acceptable, or feasible, or whether there are individuals with certain PD disorders/traits who would and would not benefit from a parenting intervention. Moreover, this prevents the current review from drawing conclusions that could influence clinical guidelines on how to support parents with PD. However, the International Classification of Diseases (11th revision, ICD-11) published by the World Health Organization (WHO, 2019) has conceptualised PD to exist on a continuum of mild to severe, demonstrating a shift away from diagnostic categorisation. This may suggest understanding specific PD diagnoses to be of less importance, and rather the focus should be on understanding parental PD severity and whether it is associated with intervention outcomes. The few studies that did include a mixed sample of participants with ‘PD and PD traits’ did not assess or control for whether the severity of PD psychopathology (between PD or PD traits) impacted effectiveness or feasibility outcomes.

Most studies had small sample sizes, restricting statistical investigation of quantitative effectiveness outcomes, as well as questioning the generalisability of interpretations. Seventy-five percent of the included studies were not controlled research studies. Only three studies compared the treatment to a control group and two studies used randomisation. This limits the conclusions that can be drawn; it cannot be certain that the changes reported quantitatively or qualitatively are due to the parenting intervention as confounding variables may have contributed to the reported changes (e.g., parental involvement with additional therapeutic or medical interventions). Many of the included studies relied upon self-reported measures which can introduce bias, reducing the internal validity of findings. Only one study (Barnicot et al., 2022) conducted observations by blinded assessors, meaning the other studies utilising observation measures (Sved Williams et al., 2018; Sved Williams et al., 2021) may have an increased risk of bias. Furthermore, the current evidence base focuses on mothers meaning we cannot be sure whether fathers with a PD would respond the same to parenting interventions. The current studies also failed to examine the potential impact of including co-parents in the intervention. This is despite a large proportion of the samples including two-parent families and the evidence base indicating positive couple relationships to be associated with positive parenting and lower levels of parental stress (Ackerson, 2003).

A substantial weakness of the current evidence base is its inadequate diversity. All existing research was conducted within highly developed, high-income countries, which therefore means this review cannot comment on whether parenting interventions are effective, feasible, or acceptable to parents with PD/PD traits who reside in less developed, lower income countries. A recent meta-analysis demonstrated parenting interventions with non-clinical samples of parents from low- and middle-income countries to be effective at improving nurturing care (Zhang et al., 2021). As PD has been shown to affect between 2.6-

11.3% adults worldwide (Winsper et al., 2020), it is crucial that treatment opportunities are not just available to more developed countries.

Lastly, many of the research studies provided no demographic information on their sample's ethnicity, which prevents the current review from assessing whether samples and the results gathered from them are representative. Additionally, of the limited studies that did report ethnicity, samples consisted of primarily white/Caucasian patients. This is significant considering inequalities that have been widely documented in Black and ethnic minority groups in relation to accessing treatment, clinical outcomes, and experiences of mental health services (Jankovic et al., 2020; Mercer et al., 2019). It is imperative that future research reports the sample's ethnicity, as well as incorporates a diverse and representative sample of parents to allow accurate assessment of effectiveness, acceptability, and feasibility of parenting interventions for PD. It could be argued that the studies included in the current sample may overestimate effectiveness, acceptability and feasibility as samples are mainly Western Caucasian participants evaluating interventions based upon western psychological ideas.

Strengths and limitations of current review

This study, to the author's knowledge, is the first systematic review that directly examined the effectiveness, feasibility, and acceptability of parenting interventions in parents with PD/PD traits. This review has several strengths, such as: a-priori protocol registration, extensive and replicable search strategy, and a range of data extracted to inform the review questions. Additionally, to reduce potential biases resulting from studies with weak methodologies, the current review used a comprehensive methodological quality assessment for each included study which guided data syntheses and conclusions drawn. Nevertheless, this review has constraints such as excluding five non-English research articles (Aidane et al., 2009; Fritz et al., 2018; Le Nestour et al., 2007; Rosenbach & Renneberg, 2019; Weidner et al., 2021) due to time and resource limitations, potentially lowering generalisability. Further, this exploratory review had broad inclusion criteria (e.g., including parents with any PD and PD traits, and including parenting interventions from a range of theoretical underpinnings and delivery formats). While this study addressed a clear gap within the field of parenting and PD, this may have limited the validity and clinical utility of conclusions as both type and severity of PD symptoms and intervention type could have influenced effectiveness, acceptability, and feasibility measurements.

Future research

There is a clear need for research to conduct higher controlled research trials of parenting interventions with large sample sizes and comparison control groups (Hariton & Locascio, 2018) to allow adequate assessment of whether parenting interventions are effective in parents with PD. These trials should incorporate a range of effectiveness measures, for example, parent, parent-infant, and child outcomes across multiple time points and utilising blinded observation measures where possible to increase internal validity. Including longitudinal outcome measures would allow the assessment of whether parental outcomes remain stable following the intervention and whether consistent improved parenting practices can invite change in child outcomes. Future trials should also routinely assess feasibility parameters, conduct exit interviews for dropouts to ascertain factors that lead to disengagement, and use validated patient and clinician acceptability measures (e.g., Acceptability of Intervention Measure; AIM; Weiner et al., 2017). Secondly, it is imperative for future research to routinely report the specific PD diagnoses of samples to enable clarity of whether parenting interventions are effective, feasible, and acceptable for each of the 10 distinct PDs or only certain PDs. Other factors that future research should consider is whether participants' ethnicity, culture, gender (or parent role e.g., father) impact findings, to understand whether parenting interventions are more effective, feasible and acceptable to certain groups than others. The current review provides a comprehensive foundation for future research to expand upon.

To decipher the contradictory findings reported between quantitative and qualitative research on child outcomes, future research is required. Research may want to consider whether adapting the parenting interventions to encompass elements targeting children's wellbeing can improve child outcomes. An area that was not assessed by any studies was the child's attachment style/behaviours. This is surprising given that mothers with BPD are more likely to have infants with an insecure attachment style (Hobson et al., 2005) and that an insecure attachment style is a significant risk factor for developing BPD in adulthood (Lyons–Ruth et al., 2005). Parenting interventions have been shown to increase secure attachment behaviours and reduce insecure attachment style in children deemed at risk of severe attachment problems (Wright & Edginton, 2016). Thus, collecting measures of attachment styles in children may allow the assessment of whether parenting interventions can disrupt intergenerational transmission risks associated with this parent-child relationship.

Clinical implications

Direct clinical implications from this review are constrained by the limitations of the existing evidence. While the review indicates some trends of effectiveness, feasibility, and acceptability, large scale randomised control trials (RCTs) are required to grow the evidence base. However, to build upon current understanding, it is possible for services to document and publish practice-based evidence on parenting interventions already used within services. This may involve considering and collecting outcome measures that assess parental mental health, in addition to assessing intervention effectiveness, acceptability, and feasibility.

Conducting rigorous research in this area is crucial for directing clinical guidelines on how to support the 25% of PD service users who are parents (McColgan, 2005). Furthermore, current NICE (2013) guidelines recommend parenting interventions as the first line of treatment for children between three and eleven years old who display challenging and oppositional behaviour. Thus, it is of interest to understand whether parenting interventions administered to parents with PD/PD traits can lead to significant psychosocial improvements in their children.

Conclusions

This novel systematic review provides preliminary evidence in modest support of parenting interventions, demonstrating some feasibility and acceptability to parents with PD/PD traits. Parenting interventions demonstrated trends towards effective improvements in parental mental health, parenting outcomes, and some self-reported and clinician rated parent-child interaction outcomes. The overall conclusions are limited by the small sample sizes and reduced methodological qualities of the studies found. This review calls for rigorous, well-documented and higher controlled research trials exploring parenting interventions in large samples of parents with PD.

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Part 2: Empirical Paper

The experience of and engagement with Perinatal Mental Health Services amongst mothers with and without personality disorder

Abstract

Aims: Women with personality disorder (PD) have greater adverse outcomes in pregnancy and heightened challenges adapting to parenthood. Despite this, little is known about how these women engage with and experience services aimed to support mental health during the perinatal period - Perinatal Mental Health Services (PMHS). This study aimed to explore the experiences and engagement of PMHS in mothers with and without PD, as well as identify barriers and facilitators to service engagement.

Method: This mixed methods study collected qualitative and quantitative data through online questionnaires on participants' engagement and experience of PMHS. Inclusion criteria required participants to have been referred to National Health Service (NHS) PMHS in the past three years. The Standardised Assessment of Personality: Abbreviated Scale (SAPAS; Moran et al., 2003) was used to identify mothers with and without 'probable PD'.

Results: 513 (*M* = 32.6 years, *SD* = 4.59) participants took part in the study and 51.9% (*n* = 266) were identified as having 'probable PD'. Comparing mothers with and without probable PD, whilst controlling for covariates, found that PD grouping did not predict engagement levels with PMHS. Instead, factors such as mandated attendance by social services, heightened health and social needs, and lower perceived social support predicted reduced engagement with PMHS. Mothers with probable PD reported significantly less confidence in the skills and techniques used by PMHS, whilst thematic analysis highlighted both positive and challenging experiences of care.

Conclusion: The current study provides a timely and relevant account of how mothers with severe and complex mental health symptomology interact with PMHS, illustrating many clinical implications for both NHS PMHS and wider NHS policy.

Introduction

The perinatal period spans from conception to one year after birth and presents a time of significant adjustment and challenges, including a heightened risk of mental health difficulties (Fisher et al., 2012). In the United Kingdom (UK), perinatal mental health difficulties affect 20% of birthing people (World Health Organisation; WHO, 2022) and can have detrimental outcomes for both the child (Stein et al., 2014) and the parents (Howard & Khalifeh, 2020), with suicide currently the leading cause of maternal death in the first year (Chin et al., 2022; Khalifeh et al., 2016). Estimates indicate within England, perinatal mental health problems cost the National Health Service (NHS) and social care £8.1 billion each year, which primarily relates to the needs and outcomes of the child (Public Health England, 2019). With the high prevalence and costly impact, perinatal mental health problems are a significant public health concern across the globe (WHO, 2019).

Perinatal mental health research has predominately focused on postnatal depression or postpartum psychosis (Howard, Molyneaux, et al., 2014; Stein et al., 2014). The mental health disorder that has received minimal attention in perinatal research or service development is personality disorder (PD). Notably, the National Institute for Health and Care Excellence (NICE) guidelines (2014) on Antenatal and Postnatal Mental Health emphasised the lack of research into PD during the perinatal period (Howard, Megnin-Viggars et al., 2014; Moran et al., 2022). The Diagnostic and Statistical Manual of Mental Disorders Fifth edition (DSM–5) states PD to be a group of severe and enduring mental health disorders characterised by behaviours that deviate from societal norms (American Psychiatric Association; APA, 2013). Difficulties associated with a PD can be debilitating, ranging from reduced social and vocational functioning, to increased suicide attempts and self-harm (Katakis et al., 2023). The prevalence rates of PD in perinatal samples range from 6% to 26.9% (Börjesson et al., 2005; Crowley et al., 2020; Howard, Molyneaux, et al., 2014; Judd et al., 2019; Nagel et al., 2021; Prasad et al., 2022; Yelland et al., 2015), considerably higher than the 4.4% estimated within the UK general population (Coid et al., 2006).

Personality disorder during the perinatal period

Women with PD may find the perinatal period more challenging than other women (Zacharia et al., 2020). Antenatally, women with higher PD symptomology have elevated levels of psychiatric symptoms (Börjesson et al., 2005) such as an increased vulnerability to anxiety, depression, and self-harm (Crowley et al., 2020). Not only can these symptoms negatively affect the expectant mother's experience of pregnancy and general quality of life (Baeur et al., 2016; Highet et al., 2014), it can adversely impact foetal development through chronic stress and endocrine responses (Newman et al., 2016). Moreover, when compared to women with other mental health diagnoses, women with PD have higher rates of additional life stressors and health and social needs during pregnancy, such as insecure accommodation (Crowley et al., 2020), less financial support (Eyden et al., 2016), increased substance misuse (Nagel et al., 2021), and challenging birthing experiences that can reactivate previous traumas (Galbally et al., 2013). A significant concern given the association between deprivation during early motherhood and higher maternal suicide rates as noted in the Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK report (MBRRACE-UK, 2022).

Once the infant has arrived, difficulties are recognised to continue, with mothers with PD having a heightened risk of exhibiting reduced emotional responsiveness and insensitive, inconsistent, and intrusive parenting behaviours (Hipwell et al., 2000; Hobson et al., 2005). It is well established that parents with a PD can experience additional emotional and behavioural challenges in their parenting role (Crandell et al., 2003; Hobson et al., 2009; Newman et al., 2007; Steele et al., 2019), such as difficulties understanding their infants' emotional states (Petfield et al., 2015). In addition, parents with PD are thought to have smaller social networks and receive less social support (Bartsch et al., 2015; Dunn et al., 2020) which can deplete parents' emotional availability, elevate stress (Seeger et al., 2022; Trupe, 2013), and contribute to difficulties in childcare. These families often encounter child protection services (Eyden et al., 2016; Nagel et al., 2021; Stanley & Penhale, 1999), and have worse child psychosocial outcomes (Barnow et al., 2006; Blankley et al., 2015; Eyden et al., 2016; Hobson et al., 2005; Macfie, 2009). However, despite the high level of adverse pregnancy outcomes and difficulties adapting to parenthood this population faces (Pare-Miron et al., 2016), very little guidance currently exists on how to treat and support mothers with PD during the perinatal period (Sved Williams et al., 2021).

Perinatal mental health services

Perinatal Mental Health Services (PMHS) are secondary care, specialist community services that provide support during pregnancy and/or the first year after birth to those experiencing moderate to severe mental health difficulties (Royal College of Psychiatrists, 2013). In the UK, PMHS have rapidly expanded in the last 10 years (Health Education England, 2017) enabling increased access to specialist mental health care (NHS England, 2018, 2019). However, despite these improvements, in April 2018, 24% of women in need in the UK were still unable to access PMHS support (Maternal Mental Health Alliance, 2018).

Barriers to engaging with UK NHS PMHS have been identified to occur at multiple points in the care pathway, including at organisational (e.g., fragmentation of services) and structural levels (e.g., unclear policies; Sambrook Smith et al., 2019). Reduced engagement with PMHS has also been associated with less social support, unmet needs such as lack of childcare (Ayres et al., 2019), as well as the well-documented barrier of stigma related to mental health (Button et al., 2017; Chew-Graham et al., 2008; Coates et al., 2015; Dennis & Chung-Lee, 2006; Edge, 2008; Glover et al., 2014; Jomeen et al., 2013; McGrath et al., 2013; Patel et al., 2013; Radcliffe, 2011; Slade et al., 2010), highlighting the complexity surrounding accessing PMHS and the multi-level changes that might be needed to improve service engagement.

Understanding how women experience the support provided by PMHS is also imperative for service development, and the data available indicates a mixed picture. For example, while women felt PMHS were under-resourced, they valued the specialist expertise and continuity of care provided from pregnancy to postpartum (Lever Taylor et al., 2021). Additionally, women with high social risk factors (e.g., low socioeconomic status) named difficulties in forming relationships with professionals and perceived support (when provided alongside social care) as surveillance (Rayment-Jones et al., 2019). The need for improved access to and experiences of PMHS has been widely recognised in the UK (Pilav et al., 2022; The Mental Health Taskforce, 2016). Currently only 16% and 14% of English and Scottish, and no Welsh or Northern Irish, PMHS were found to be delivering the minimum level of care that families should receive (Maternal Mental Health Alliance, 2023).

Perinatal mental health services and personality disorder

NICE guidelines (2014) stipulate women with current or past severe mental health problems, including a diagnosis of a PD, should be referred to a specialist PMHS for support during preconception, pregnancy, and the postnatal period. Yet guidelines note PD to be associated with poor engagement with maternity services and PMHS, which can contribute to poor mental and physical health outcomes for the mother, baby, and wider family (NICE, 2014). The NHS Long Term Plan (NHS England, 2019) specifically laid out aims to transform PMHS to increase and improve support for mothers with PD by 2024. However, despite this service development aim, limited research has investigated mothers with PD and their engagement with and experience of PMHS demonstrating a significant gap in the existing evidence base.

Currently only one Australian study (Blankley et al., 2015) has investigated levels of engagement with perinatal services in PD populations. This found mothers with a PD had significantly lower levels of engagement with PMHS as well as other maternity services. Furthermore, mothers with PD were noted to be less likely to follow healthcare guidelines during pregnancy and postpartum. However, reasons for the reduced engagement with PMHS (e.g., barriers that impeded engagement) were not captured or disseminated in this research. Uncertainty surrounding the barriers to PMHS for mothers with PD limits the service developments that can be made, as it remains unclear what is contributing to the reduced engagement with PMHS in PD. Thus, this does not provide understanding of how services can support improved engagement in mothers with PD.

Within general secondary mental health care services, PD can be associated with difficulties engaging with mental health support (Jinks et al., 2012). Barriers to engagement have been linked to stigma and difficulties forming trusting relationships with healthcare professionals (Barr et al., 2020). In line with this, mothers with PD have previously expressed reduced trust and feeling stigmatised as parents by Child and Adolescent Mental Health Services (CAMHS) because of their diagnosis. Additionally, parents with PD reported feeling that clinicians at CAMHS did not take their parenting experiences seriously, contributing to a sense of helplessness (Wilson et al., 2018). Heightened mistrust of others is commonly noted in PD and explained by the paradigm of epistemic mistrust, that is, a reduced ability to trust knowledge transmitted interpersonally, often linked to significant attachment difficulties and trauma experienced during childhood (Fonagy & Allison, 2014). However, the population's mistrust of services may not be misdirected, with research highlighting higher levels of prejudices and stigma harboured by clinicians towards PD service users (Klein et al., 2022; Markham & Trower, 2003), an association perpetuated by clinicians' poor PD health literacy (Ring & Lawn, 2019). Although an area that requires investigation, it may be that barriers noted to impede treatment in general secondary mental health care may also be present in interactions with PMHS for service users with PD.

A recent qualitative study (Zacharia et al., 2020) is the only research published that has explored the experiences of NHS PMHS amongst twelve mothers with a PD diagnosis, finding participants felt judged to be unfit mothers and that PMHS were unable to support them with the complexity of their needs. Overall, participants described feeling unheard and misunderstood by PMHS. These findings raise significant concerns, suggesting mothers with PD experience complex difficulties during the perinatal period for which they may struggle to receive support for. Moreover, albeit a small-scale study that requires replication, this highlights potential inadequacies in care provided currently by NHS PMHS for mothers with PD. Zacharia and colleagues' findings align with research conducted with wider PD populations, which noted PD service users to report frequent challenging experiences and discrimination from secondary care mental health services (Lawn & McMahon, 2015; Rodgers & Dunn, 2011). Further exploration into the engagement with and experiences of PMHS in these high-risk mothers seems pertinent, particularly given that difficulties that characterise perinatal PD samples (high health and social needs, stigma, and reduced social support) are documented barriers of engagement with PMHS within the general perinatal population.

Aims of current study

This study aimed to contribute to The NHS Long Term Plan (NHS England, 2019) of transforming PMHS for mothers with PD, by exploring the engagement with and experiences of PMHS in mothers with and without PD in a large-scale study. As little is known about the barriers of PMHS engagement in mothers with PD, the current study aimed to identify and compare the factors that may hinder or facilitate engagement with PMHS in mothers with and without PD. It was hypothesised that health and social needs, stigma related to mental health, and reduced social support may be heightened in the PD sample and may predict levels of engagement with PMHS. Due to the reluctance surrounding the label of PD and giving a formal diagnosis (Paris, 2007), the current study identified mothers with and without 'probable PD' using a short, valid and reliable questionnaire (the SAPAS; Moran et al., 2003). In line with national guidelines (The NHS Long Term Plan), the current study identified mothers with difficulties consistent with any of the subtypes of PD, rather than focusing on one specific PD. The current study used both quantitative and qualitative methods to address four aims:

1. To compare the level of self-reported engagement with PMHS between mothers with and without probable PD
2. To identify factors that may hinder or facilitate mothers' engagement with PMHS, and compare whether these factors differ between mothers with and without probable PD
3. To compare the experiences of PMHS between mothers with and without probable PD
4. To qualitatively explore the views and experiences of PMHS in mothers with probable PD in a large-scale study

Method

Design and setting

This study used a cross-sectional, mixed-methods design, collecting data through an online, anonymous survey on the platform Qualtrics. The present study considered mothers without PD as a control group to understand whether engagement and experiences of PMHS in mothers with PD significantly differed from the general perinatal population accessing PMHS. This methodology was utilised in hope of enhancing the internal validity of the study by limiting the influence of confounding and other extraneous variables.

Ethics statement

Ethical approval was granted by UCL Research and Ethics in August 2022 (ethics number: 22885/001). The approval letter is provided in appendix D. All participants were informed of confidentiality before taking part and were provided with a debrief sheet explaining aims, plans for dissemination and follow-up support resources (appendix I).

Inclusion criteria

Participants who met the following eligibility criteria were invited to complete the survey.

1. Currently pregnant or have been pregnant in the past three years
2. Referred to an NHS (UK) PMHS either during and/or after pregnancy in the past 3 years
3. Aged over 18 years

Recruitment

Recruitment for the study occurred between August and December 2022 and was advertised online through several avenues. The research advert (appendix E) detailed information about the study and was shared on social media platforms (Twitter, Facebook, Instagram, Reddit, and Wix) and snowball sampling was promoted. Social media accounts across Twitter, Facebook, and Instagram related to pregnancy, motherhood, PD, and mental health were contacted to request dissemination of the research advert via their platform. Finally, UK based charities related to pregnancy, motherhood, PD, and mental health were located via the online UK government charity register (https://www.gov.uk/find-charity-information) and contacted by email to request their support in the promotion of the project. In total, 430 charities and social media platforms were contacted, and 244 agreed to promote the project on their social media pages, websites, or newsletters. Recruitment pathways of the final sample were not tracked.

Development of online survey

No existing questionnaires were found to capture the data required for assessing participants' engagement with and experience of PMHS. Therefore, the research team designed a set of questionnaires (appendix H) tailored to the project with additional validated measures to supplement where necessary.

Measures

Personal and pregnancy demographics. Participants were initially asked to provide demographic information, including age, gender identity, ethnicity, relationship status, work status, highest qualification, housing status and yearly household income. To characterise the sample, information was gathered on participants' current and/or past pregnancy/pregnancies (e.g., number of pregnancies), and whether they had experienced significant pregnancy related life events during the past three years (e.g., miscarriage). For every question, participants were provided with a '*prefer not to say'* and '*other*' option where they could write a free-text response.

Maternal report of mental health. Participants' mental health was assessed. As inclusion criteria included PMHS involvement up to three years ago, a current measure of mental health symptomology was not deemed appropriate (it was hypothesised that difficulties when referred to PMHS might differ from a current measurement). Mental health was captured using three items. First, participants were presented with a list of 22 mental health diagnoses informed by the DSM-5 (APA, 2013). Participants were instructed to use the 'multiple tick option' to indicate whether they had been diagnosed with any of these mental health disorders or had '*no formal diagnoses'*. Next, participants were presented with 20 mental health symptoms, and indicated symptoms experienced at the point of referral. For both questions, participants had the option to select '*prefer not to say*' or '*other*' and enter a free-text response. Finally, a free-text box asked participants to recall at the time of their referral to PMHS, what their main psychological difficulties were.

Perinatal Mental Health Service Involvement Questionnaire (PMHIQ). This 26-item questionnaire aimed to capture participants' engagement with and experiences of NHS PMHS. To aid creation, the relevant evidence base was reviewed and informed the content of the questionnaire. The survey went through iterations within the research team (EB, JF, JD) and included and incorporated feedback from stakeholders and service users.

First, participants provided details on mental health support received during the perinatal period through 'multiple tick' responses. Next, three items on the questionnaire assessed participants' self-reported engagement with PMHS. Service engagement has been postulated to comprise of six elements (Jinks et al., 2012). However, as the current study relied upon self-report, engagement was measured behaviourally by asking participants to report on their attendance to PMHS. Participants indicated ('*yes*' or '*no*') whether they planned to attend PMHS and whether they attended at least one session of PMHS. Next, participants rated their attendance to PMHS on a 11-point Likert scale (0 = *I did not attend any sessions I was offered*, 5 = *I attended half of the sessions*, 10 = *I attended all of the sessions I was offered*).

To identify barriers and facilitators of engagement with PMHS, the current study replicated Ayres et al. (2019) questionnaire items 28 and 29, presenting participants with 22 factors (11 barriers e.g., "lack of time", 11 facilitators e.g., "encouragement by family"). Participants were asked to rate whether these factors had "*no influence*" or "*some influence*" or "*not applicable*" on their decision to engage with PMHS.

Participants' experience of PMHS was captured quantitatively and qualitatively. The quantitative measurement of experience was informed by service user evaluation questionnaires such as the Patient Experiences Questionnaire (Pettersen et al., 2004) and the

Generic Short Patient Experiences Questionnaire (Sjetne et al., 2011). Five questionnaire items asked participants to rate their experience of PMHS (e.g., "I felt that PMHS listened to me and treated my concerns seriously") on a 5-point Likert scale (0 = *never* to 4 = *at all times*). Higher scores denoted more positive experiences of PMHS. To qualitatively measure participants' experience of PMHS, participants were asked to reflect upon aspects of care that were helpful, unhelpful, or needed improvement using six unlimited free-text responses.

Standardised Assessment of Personality: Abbreviated Scale (SAPAS; Moran et al., 2003). The SAPAS identifies individuals who may have difficulties consistent with any of the ten PDs (probable PD). Participants are instructed to answer, '*yes*' or '*no*' on eight items (e.g., "Are you normally an impulsive sort of person?"). A total score is created through summing items (after reverse coding item three) and represents the likelihood that a person has a PD, rather than identifying which particular type of PD a person meets criteria for (Hesse & Moran, 2010). The SAPAS was developed to be administered by clinicians. The original protocol documented a score of ≥ 3 identified the presence of a PD with high sensitivity and specificity (Moran et al., 2003). However, validation of the SAPAS as a self-report questionnaire in general population samples have suggested a more conservative score of ≥ 4 to be a better indication of a probable PD (Fok et al., 2015; Germans et al., 2008; Gonzalez, 2014) and thus this was used in this study. The SAPAS has been administered in numerous research studies of perinatal samples (e.g., Crowley et al., 2020; Doherty et al., 2019) and is highly correlated in both clinical and general population samples (Merlhiot et al., 2014) with the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First et al., 1997), the gold standard diagnostic tool for PD. The SAPAS has moderate levels of internal consistency (Cronbach alpha, α = .68; Moran et al., 2003).

Camberwell Assessment of Need Short Appraisal Schedule – Patient 2nd edition (CANSAS-P; Slade & Thornicroft, 2020). CANSAS-P assesses health and social needs over the past month. Participants were presented with 22 domains of life (e.g., housing, physical health) and across each domain rated whether they had '*no need*' (scored 0), '*met need*' (e.g., receiving support for need, scored 1), or '*unmet need*' (e.g., not receiving support for need, scored 1). Three summary variables are produced for each participant, a total of met and unmet needs, and a total number of needs (sum of met and unmet needs), with the highest overall score being 22. Higher scores denoted a higher number of health and social needs. The CANSAS-P has sufficient re-test reliability and high internal consistency (α = .77; Slade & Thornicroft, 2020) in adult mental health service users.

The Stigma Scale (TSS; King et al., 2007). The stigma scale is a 28-item scale which measures the stigma of mental illness, including discrimination experiences (e.g., "Having had mental health problems makes me feel that life is unfair"), openness of disclosing information about mental health (e.g., "I find it hard telling people I have mental health problems"), and one's recognition of positive aspects of their mental health (e.g., "Having had mental health problems has made me a stronger person"). Items are rated on a five-point Likert scale (0 = *strongly disagree*, 4 = *strongly agree*) and are totalled to create discrimination, disclosure, and positive aspects (reverse scored) subscale scores with higher scores suggesting a higher experience of stigma. An overall total stigma score is created by summing the three subscale scores (highest score: 112). This scale has good test-retest reliability and high internal consistency (α = .87; Kings et al., 2007).

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988). The MSPSS is a 12-item questionnaire that measures perceptions of support received from friends (e.g., "My friends really try to help me"), family (e.g., "My family really tries to help me"), and a significant other (e.g., "There is a special person who is around when I am in need"), rating items on a seven-point Likert scale (1 = *very strongly disagree* to 7 = *very strongly agree*). A total score of perceived support, as well as three subscale scores (family, friends, significant other) are created by summing and averaging items, with the highest overall score and subscale score being 7. Higher scores denoted greater levels of perceived social support. The MSPSS has good internal reliability when used with pregnant women ($\alpha = .84 - .92$; Zimet et al., 1990).

Pilot study

A pilot study consisting of ten pregnant participants recruited online (*M* = 31.3 years, *SD* = 4.3 years, 100% female), was conducted to ascertain face and content validity, and consider participant acceptability of the questionnaires and online design. Furthermore, this allowed researchers to measure the time taken to complete the survey (*M* = 15.4 minutes, *SD* = 6.5). Appendix G details feedback questions asked in the pilot. Adjustments were made to the survey based upon feedback gathered from this pilot (e.g., wording of items, including a progress indicator).

Procedure

After clicking on the survey link on a device connected to the internet, participants were presented with an information sheet and consent form (appendix F). The participants were then presented with the seven questionnaires which captured information on their demographics, mental health, and experience and engagement with PMHS. On average it took participants 16.9 minutes to complete (*SD* = 6.8). Following survey completion, participants were provided with a debrief form and an option of being entered into a prize draw. If participants selected ‘yes’, they were taken to a separate survey to enter their email address to ensure personally identifiable information was not connected to questionnaire responses. Five participants won voucher prizes of £25-100.

Power calculation

As the current study’s aims were novel and the primary outcome was created for this study, clear guidance for power calculations could not be found. Due to this, a conservative estimate of a medium effect size ($d = 0.5$; $R^2 = .15$; $V = .40$) was adopted for the present study. An a-priori power analysis was conducted using the “G*Power 3” computer program (Faul et al., 2007), specifying an alpha level of $p \leq .05$ to provide 80% power for each planned statistical analysis method (chi-square, independent sample t-test, and multiple regression). The suggested sample size varied depending on statistical method (n = 128-220). To ensure sufficient power the minimum sample size considered for the present study was 220.

Quantitative analysis plan

Quantitative data was exported from Qualtrics into IBM SPSS Statistics 26. Free text ‘other’ responses were coded into either an already specified category or by creating new categories where needed. Similarly, the free-text responses given by participants for their main difficulty when referred to PMHS were coded and categorised. Participants were classified into high SAPAS or low SAPAS participants. To determine the distribution of the data, histograms were computed and inspected, and skewness and kurtosis statistics were run. Descriptive statistics were calculated to assess frequencies of demographics, as well as computing means, standard deviations, and ranges where appropriate. All descriptive demographic information was computed for the whole sample, as well as split by low SAPAS and high SAPAS groups and statistically compared.

Before conducting each planned analysis, statistical assumptions were checked. If data violated assumptions, alternative tests were computed. Across the whole dataset, Chi-Square analyses were conducted to compare frequencies of categorical dependent variables (DVs) between high and low SAPAS groups. Whereas for continuous DVs, independent t-tests (or non-parametric equivalent, Mann Whitney U) were computed to assess significance between low and high SAPAS groups. Effect sizes and interpretation for each analysis can be seen in Table 1. Bonferroni corrections were applied to all analyses to account for multiple testing.

Table 1

Effect sizes and interpretations

Statistical Analysis	Effect size	Interpretation	Referenced guidelines
Chi-Square	Cramer's V	Weak ($V < .20$)	Cramér (1946)
		Moderate ($V = .20 - .60$)	
		Strong ($V > .60$)	
Independent T-test	Cohen's d	Small ($d = 0.20$)	Cohen (1988)
		Medium ($d = 0.50$)	
		Large ($d = 0.80$)	
Mann Whitney U	r	Small (r = .10)	Cohen (1988)
		Medium (r = .30)	
		Large (r = .50)	

To compare levels of engagement between high and low SAPAS groups (aim one), three questionnaire items were analysed as separate DVs (two categorical, one continuous). Additionally, for the continuous DV, a multiple linear regression was computed to control for covariates (variables identified to significantly differ between low and high SAPAS groups), to assess whether the effect of SAPAS grouping on engagement was 'true'. Dummy variables were computed for categorical covariates and included in this and subsequent regression models.

To identify which of the 22 factors had 'no influence' or 'some influence' on engagement with PMHS (aim two), descriptive statistics were calculated for the whole sample. Between high and low SAPAS groups, the proportions of 'no influence' or 'some influence' were compared for each of the 22 factors as separate categorical DVs. Participants who selected a factor as 'not applicable' were excluded from individual analyses. To assess the impact health and social needs (CANSAS-P), stigma (TSS), and perceived social support (MSPSS) had on PMHS engagement, eleven multiple linear regression analyses were conducted, each with a subscale included as an independent variable (e.g., unmet needs), alongside SAPAS grouping and identified covariates.

Finally, to compare the experience of PMHS between low and high SAPAS groups (aim three), five continuous DVs were analysed independently. Multiple regression analyses assessed the effect of SAPAS on each DV, while controlling for covariates.

Qualitative analysis plan

Qualitative data was analysed using the six-step thematic analysis approach (Table 2) coined by Braun and Clarke (2006) to identify and interpret patterns within participants' experiences of PMHS. Data was uploaded onto NVivo (20) software to enable systematic analysis of the large data set. Analysis took an inductive approach, with themes identified grounded in the data (Patton, 1990). An example of the analysis process is provided in appendix J.

Table 2

Braun & Clarke's (2006) six-steps approach to thematic analysis

Step	Description
1	The researcher (EB) familiarised herself with the data through reading collected written responses multiple times to allow sufficient data immersion.
2	Initial coding occurred next, with the researcher assigning codes to data that captured ideas that appeared significant.
3	Generated codes were collated and sorted into themes. This iterative process employed diagrams and tables, allowing combined codes to create overarching themes organised in a preliminary framework.
4	Themes were reviewed and compared against raw data and created codes, resulting in a 'better fit' theme framework. The theme framework was further reviewed and discussed with both supervisors and compared against raw data - a validity check (Elliott et al., 1999; Patton, 1999) that highlighted any inconsistencies, overlaps, or areas of bias in the thematic analysis and framework.
5	Themes within the framework were named, with their theme boundaries defined to capture what they represented.
6	The finalised themes were written up for the current study's result section.

It is essential in qualitative research for the researcher to "situate" themselves (Patnaik, 2013, p. 99), making transparent their identities and preconceptions that may impact data interpretation (Finlay, 2002). The qualitative analysis was approached with a critical realist perspective (Willis, 2023). Therefore, the author assumed both the participants' written accounts of PMHS and qualitative analysis were filtered through identities and experiences. See appendix K for the author's statement of reflexivity.

Results

Sample

In total, 1,133 participants commenced the survey; 620 participants were excluded for either: not meeting inclusion criteria, being identified as duplicates by Qualtrics (e.g., the same person completing the survey multiple times), or only completing demographic data ('non-completers'). Analysis comparing 'non-completers' to 'completers' found no significant difference across demographics ($p > .05$). Figure 1 details participants excluded from analysis. The final dataset consisted of responses from 513 participants who were referred to UK NHS PMHS. Of these 513, 48.1% ($n = 247$) scored ≤ 3 on the SAPAS ('low SAPAS group'), and 51.9% ($n = 266$) scored ≥ 4 ('high SAPAS group').

Full personal and pregnancy demographics are reported in Table 3. Overall, the sample was aged between 20 and 47 years old ($M = 32.6$ years, $SD = 4.6$) and 99.6% identified as female. Most participants were white British (91.1%), with the remaining sample's ethnicity made up of Asian, Mixed White and Black British, White European, Black African, and Kurdish. Nearly all participants (90.3%) identified as heterosexual and 96.5% reported currently being in a relationship. A large proportion of the sample were homeowners, and most participants had a job. Annual household income varied across the sample, however 78.4% earned £30,000 or higher (for reference, £32,300 was the UK national average household income at the time of the study; Andrews & Croal, 2023). Nearly a fifth of the sample were currently pregnant, with the remaining 82.1% of participants pregnant between 2019-2022. Almost a quarter reported experiencing a miscarriage, and around a tenth experienced their infant being cared for in a neonatal unit or reported a pregnancy termination in the past three years. [1]

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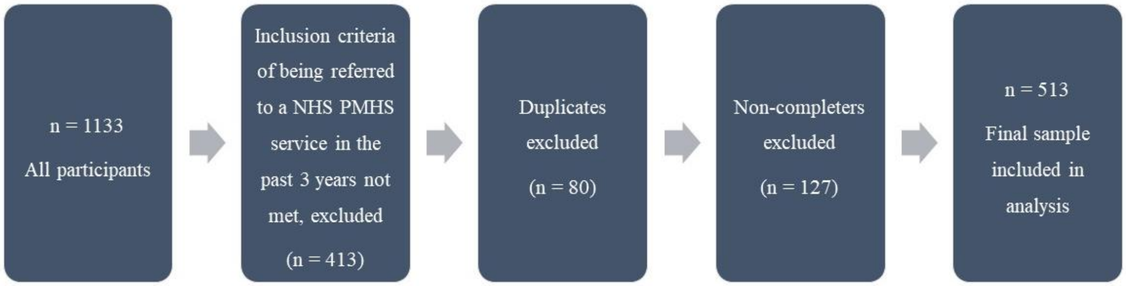
[1] Information provided to characterise the sample. However, from the data collected, it is not possible to conclude whether these birthing life events occurred before, during, or after participants' engagement with Perinatal Mental Health Services.

Figure 1

Documenting the data cleaning process and participants excluded from analysis.



The high SAPAS group were significantly younger, less likely to be in a relationship or own a house and had lower qualifications and household income. No significant differences between the two groups existed for pregnancy related variables.

Mental health outcomes

Table 4 details the mental health outcomes for the whole sample, as well as split by low and high SAPAS groups. The most prevalent diagnosed mental health disorders were depression and generalised anxiety disorder. Only four participants had not received a formal mental health diagnosis. On average, the sample reported having 2.3 mental health diagnoses (*SD* = 1.7, range: 0-11), with 62.8% having two or more mental health diagnoses. Across the whole sample, the most common mental health symptoms experienced at the point of referral to PMHS were anxiety, low mood, sleep difficulties, low self-esteem, mood swings, and interpersonal difficulties. Twelve distinct reasons for the participants' referral to PMHS were identified, with anxiety, low mood, birth trauma, suicidal ideation, and bonding difficulties the most common.

The high SAPAS group had higher proportions of mental health symptoms at the point of referral to PMHS and had a significantly higher number of diagnosed mental health disorders (*M* = 2.8, *SD* = 1.8) than the lower SAPAS group (*M* = 1.7, *SD* = 1.2), with a medium effect size *U* =

2720.00, $p < .001$, $r = .37$. No significant differences were noted between the high and low SAPAS groups on the main reason for their referral to PMHS, once Bonferroni corrections were applied.

Table 3

Personal and pregnancy demographics of the whole sample and split by high and low SAPAS groups.

Demographic variable		**Whole Sample (*n* = 513)**	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test statistic (df)**	***p*-value**	**Effect size**
Gender	Female	99.6%				> .05	
	Non-binary	0.4%					
Age		32.6 years old (*SD* = 4.6, range: 20-47)	33.7 years old (*SD* = 4.8, range: 22-44)	31.8 years old (*SD* = 4.1, range: 20-47)	*U* = 42095.00	**< .001***	*r* = .28, 95% CI [.19, .37]
Ethnicity	White British	91.1%				> .05	
	Black African	1.4%					
	White European	1.6%					
	Mixed White and Black British	2.3%					
	Asian	3.3%					
	Kurdish	0.3%					
Country	UK	100%				> .05	
Current relationship status	Single	3.5%	1.2%	5.6%	*U* = 34304.50	**.007***	*r* = .04, 95% CI [.06, .14]
	In a relationship	96.5%	98.8%	94.4%			
Sexuality	Heterosexual	90.3%				> .05	
	Homosexual	0.6%					
	Bisexual	7.1%					

Demographic variable		**Whole Sample (*n* = 513)**	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test statistic (df)**	***p*-value**	**Effect size**
	Other (demisexual, pansexual, queer)	1%					
	Prefer not to say	1%					
Employment status	Full time worker	41.7%	45.7%	38%	χ^2(5, *N* = 513)	.016**a**	*V* = .17
	Part time worker	34.5%	34%	35%	= 13.89		
	Self employed	7.4%	8.9%	6%			
	Unemployed	12.5%	8.1%	16.5%			
	Student	2.3%	1.2%	3.4%			
	Prefer not to say	1.6%	2.1%	1.1%			
Highest qualification	No qualifications	0.6%	0.4%	0.8%	χ^2(6, *N* = 513)	**< .001***	*V* = .25
	GCSEs	4.3%	0.4%	7.9%	= 32.43		
	Apprenticeship	0.8%	0%	1.5%			
	A-levels	13.8%	12.6%	15%			
	University degree	48.7%	47%	50.4.%			
	Postgraduate	31.6%	39.6%	24%			
	Prefer not to say	0.2%	0%	0.4%			
Accommodation Status	Homeless	0.2%	0.4%	0%	χ^2(6, *N* = 513)	**< .001***	*V* = *.24*
	Supported accommodation	0.8%	0%	1.5%	= 28.79		

Demographic variable		**Whole Sample (*n* = 513)**	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test statistic (df)**	***p*-value**	**Effect size**
	Temporary accommodation	0.8%	0.4%	1.1%			
	Social housing	6.4%	3.2%	9.4%			
	Private sector tenants	17%	11.7%	21.8%			
	Homeowner	73.8%	83.9%	64.7%			
	Preferred not to say	1%	0.4%	1.5%			
Household income (annual)	<£18K	7.6%	4.5%	10.5%	$\chi^2(6, N = 513) = 22.71$	**< .001***	*V = .21*
	£18-30K	10.7%	7.7%	13.5%			
	£30-50K	22.8%	19.8%	25.6%			
	£50-70K	23.2%	24.7%	21.8%			
	£70-90K	15.8%	19.4%	12.4%			
	£90K+	16.6%	21.1%	12.4%			
	Prefer not to say	3.3%	2.8%	3.8%			
Currently Pregnant	Yes	17.9%				> .05	
	No	82.1%					
Year last pregnant	2019	4.7%				> .05	
	2020	19.3%					
	2021	29.8%					
	2022	28.3%					

Demographic variable		**Whole Sample (*n* = 513)**	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test statistic (df)**	***p*-value**	**Effect size**
Type of pregnancies	Single child	97.5%				> .05	
	Twins	2.5%					
Total number of pregnancies		2.1 (*SD* = 1.4)				> .05	
Total number of children (including current pregnancy)		1.1 (*SD* = 0.9)				> .05	
Pregnancy life events	Miscarriage	23%				> .05	
	Still birth	2.1%				> .05	
	Loss of child in first year	0.6%				> .05	
	Neonatal care	12.1%				> .05	
	Pregnancy termination	2.5%				> .05	
	Pregnancy termination for medical reasons	4.3%				> .05	

Note. ‘*****’ denotes a clinically significant result; ‘**a**’ denotes a result that is no longer significant following Bonferroni corrections for multiple testing.

Table 4

Mental health diagnoses and symptomology for the whole sample and split by high and low SAPAS groups.

		Whole Sample (*n* = 513)	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test statistic (df)**	***p*-value**	**Effect size (*V*)**
Formal mental health diagnosis received	Depression	52.1%	37.7%	65.8%	$\chi^2(1, N = 513) = 40.64$	**< .001***	.28
	GAD	48.4%	39.3%	57.1%	$\chi^2(1, N = 513) = 16.38$	**< .001***	.18
	Postnatal depression	41.1%				> .05	
	Postnatal anxiety	37.5%				> .05	
	Personality disorder	6.8%	0%	13.2%	$\chi^2(1, N = 513) = 27.09$	**< .001***	.23
	PTSD	34.8%				> .05	
	Panic disorder	6.4%	3.2%	9.4%	$\chi^2(1, N = 513) = 8.07$	**.004***	.13
	Health anxiety	0.4%				> .05	
	Social anxiety	7.4%	2.4%	12.8%	$\chi^2(1, N = 513) = 19.09$	**.004***	.19
	Phobia	4.1%	1.6%	6.4%	$\chi^2(1, N = 513) = 7.43$	**.006***	.12
	OCD	10.3%	6.5%	13.9%	$\chi^2(1, N = 513) = 7.34$	**.006***	.12
	Anorexia	3.3%				> .05	
	Bulimia	1.6%	0.4%	2.6%	$\chi^2(1, N = 513) = 4.14$	.042**a**	.09
	BDD	1.6%				> .05	
	Hoarding	0.2%				> .05	
	Psychosis	1.2%				> .05	
	Postpartum psychosis	2.3%				> .05	
	Schizophrenia	0.4%				> .05	
	Schizoaffective disorder	0.2%				> .05	
	Bipolar	1.6%				> .05	
	SAD	1.6%				> .05	
	Alcoholism	0.6%				> .05	

		Whole Sample (*n* = 513)	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test statistic (df)**	***p*-value**	**Effect size (*V*)**
	Substance misuse	0.2%				> .05	
	OSFED	0.2%				> .05	
	Dissociative disorder	0.6%				> .05	
	No formal diagnosis	0.4%				> .05	
Mental health symptoms experienced at the point of referral to PMHS	Low mood	85%	79.4%	90.6%	$\chi^2(1, N = 513) = 12.84$	**< .001***	.16
	Worries/anxiety	88.3%				> .05	
	Flash backs/nightmares	52.9%				> .05	
	Panic attacks	48.7%	40.1%	56.8%	$\chi^2(1, N = 513) = 14.27$	**< .001***	.17
	Social fears	65.6%	58.7%	72.2%	$\chi^2(1, N = 513) = 10.32$	**< .001***	.14
	Obsessional thoughts/compulsions	33.1%	27.5%	38.3%	$\chi^2(1, N = 513) = 6.76$	**< .009***	.12
	Phobias	19.9%	15.4%	24.1%	$\chi^2(1, N = 513) = 6.05$	**.014a**	.11
	Interpersonal difficulties	34.8%	27.1%	42.1%	$\chi^2(1, N = 513) = 12.65$	**< .001***	.16
	Mood swings	58.6%	48.6%	68.0%	$\chi^2(1, N = 513) = 20.01$	**< .001***	.20
	Impulsivity	17.1%	6.9%	26.7%	$\chi^2(1, N = 513) = 35.36$	**< .001***	.26
	Dissociation	28.8%	20.6%	36.7%	$\chi^2(1, N = 513) = 15.61$	**< .001***	.17
	Suicidal thoughts	36.8%	29.1%	44%	$\chi^2(1, N = 513) = 12.11$	**< .001***	.15
	Self-harm	14.4%	8.5%	19.9%	$\chi^2(1, N = 513) = 13.54$	**< .001***	.16
	Hearing voices	4.1%	1.2%	6.8%	$\chi^2(1, N = 513) = 10.06$	**.002***	.14
	Hallucinating	7%	3.6%	10.2%	$\chi^2(1, N = 513) = 8.31$	**.004***	.13
	Low self-esteem	60.0%	52.2%	67.3%	$\chi^2(1, N = 513) = 12.12$	**.001***	.15
	Sleep difficulties	64.9%				> .05	
	Addiction	1.2%	0%	2.3%	$\chi^2(1, N = 513) = 5.64$	.018**a**	.11

		Whole Sample (*n* = 513)	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test statistic (df)**	***p*-value**	**Effect size (*V*)**
	Body image difficulties	33.7%	28.7%	38.3%	$\chi^2(1, N = 513) = 5.28$	.022**a**	.10
	Disordered eating	18.1%	14.2%	21.8%	$\chi^2(1, N = 513) = 5.03$	.025**a**	.10
Main difficulty when referred to PMHS	Low Mood	15.4%				> .05	
	Birth Trauma	11.9%				> .05	
	Anxiety	30.2%				> .05	
	Mixed anxiety and depression	8.2%				> .05	
	Grief	1.2%				> .05	
	Bonding difficulties	2.3%	0.8%	3.8%	$\chi^2(1, N = 513) = 4.88$	.027**a**	.10
	Suicidal ideation/plans	4.3%				> .05	
	Low self-esteem	1.4%				> .05	
	Personality disorder management	1.8%	0%	3.4%	$\chi^2(1, N = 513) = 5.03$	.025**a**	.10
	Anger management	0.8%				> .05	
	Psychosis	1.2%				> .05	
	Sleep difficulties	0.8%	1.6%	0%	$\chi^2(1, N = 513) = 4.34$	.037**a**	.09

Note. '*' denotes a clinically significant result; '**a**' denotes a result that is no longer significant following Bonferroni corrections for multiple testing; GAD: generalised anxiety disorder; PTSD: post-traumatic stress disorder; OCD: obsessive compulsive disorder; BDD: body dysmorphia disorder; SAD: seasonal affective disorder; OSFED: other specified feeding or eating disorder.

Involvement from mental health services during the perinatal period

The majority (73.5%) of the sample recalled being given information on perinatal mental health that was provided by their midwife (60.2%), health visitor (17%), or GP (13%). Ninety-three percent of the sample recalled being asked questions about their mental health during the perinatal period. The main services that the sample reported being supported by, alongside PMHS, was their GP (38.8%), primary care talking therapies service: IAPT (37.6%), and a specialist midwife (26.7%). On average, and in addition to PMHS, participants reported being supported by 2.4 services for their mental health during the perinatal period (*SD* = 1.4, range: 1-9). Following Bonferroni corrections, no significant differences were found between low and high SAPAS groups (see appendix L for full data).

Involvement from PMHS during the perinatal period

Most of the sample reported being referred to PMHS by either their midwife (43.3%), GP (24%) or health visitor (14.6%). Although 92.1% of the sample recalled not being required to attend PMHS by social services, significantly higher proportions of the high SAPAS group were required to attend PMHS support with a small effect size, $\chi^2(1, N = 513) = 14.46, p < .001, V = .17$.

The main type of support participants reported receiving from PMHS was talking therapy followed by case management and medication support. The most common type of professional supporting the participants were a mental health nurse (40.2%), psychological therapist (38.4%), and psychiatrist (28.3%). On average participants reported receiving 1.5 (*SD* = 1.3, range: 1-6) different types of care and worked with 1.5 (*SD* = 1.2, range: 1-7) different healthcare professionals. The high SAPAS group were more likely to be supported by a social worker from

PMHS. No other significant differences existed between the two groups once Bonferroni corrections were applied (see appendix M for full data).

Engagement with PMHS

Across the whole sample, 87.2% planned to attend PMHS and 86.7% attended at least one session provided by PMHS. No significant differences were found between the number of high (88.8%) and low (89.1%) SAPAS participants that planned to attend the PMHS support they were referred for, χ^2 (1, N = 513) = 0.02, p = .901, V = .02. Further, no significant difference between the high (86.7%) and low (88.1%) SAPAS groups was found in self-reported attendance of at least one PMHS session, χ^2 (2, N = 513) = 0.41, p = .813, V = .03.

Self-rated attendance across the whole sample was positively skewed (M = 9.2, SD = 1.6, range: 1-10). However, self-reported attendance rates for high SAPAS participants (M = 9.1, SD = 1.7) was significantly lower than low SAPAS participants (M = 9.4, SD = 1.6) with a small effect size, U = 25143.50, p < .001, r = .15, 95% CI [.04, .26]. Multiple regression analysis was computed to control for covariates. Age, current relationship status, highest qualification, accommodation status, household income, and number of mental health diagnoses were included in a multiple regression model, F(26, 391) = 2.54, p < .001, R^2 = .15. This found SAPAS grouping (high/low) still predicted participants' self-reported attendance rates, t(506) = -2.16, p = .031, with high SAPAS participants reporting significantly lower attendance to PMHS. However, once the covariate of mandatory attendance to PMHS due to social services was controlled for alongside the other six covariates, F(28, 389) = 3.57, p < .001, R^2 = .21, SAPAS grouping no longer predicted self-reported attendance rates, t(505) = -1.24, p = .217. Mandatory attendance to PMHS due to social services significantly predicted reduced attendance to PMHS, t(505) = -5.46, p < .001.

Factors that influenced engagement with PMHS

Across the whole sample, thirteen factors were considered to have ‘some influence’ on participants’ engagement with PMHS (some influence ≥ 50%; Table 5). Chi-Square analyses compared low and high SAPAS groups and found high SAPAS participants reported their attendance to be significantly more influenced by ten factors (Table 5). These factors included: financial (costs related to the appointment), practical (lack of transport to the appointment, lack of childcare, waiting time for appointment, lack of time), interpersonal (previous unhelpful experiences with mental health services, partner opposed to mental health treatment, concerned about being judged), motivating (wanting to discuss medication), and psychological factors (not feeling motivated). Multiple testing was controlled for using Bonferroni corrections (adjusted critical p-value, $p \leq .0125$).

High SAPAS participants had significantly higher levels of met ($r = .14$), unmet ($r = .26$), and total needs ($r = .23$), and higher disclosure ($r = .19$), discrimination ($r = .46$), and overall stigma levels ($r = .38$). Further, high SAPAS participants had significantly fewer positive experiences of their mental health (internalised stigma; $r = .13$), and less perceived support from their family ($r = .21$), friends ($r = .34$), significant other ($r = .17$), and overall support network ($r = .32$; Table 6).

Multiple linear regression models that controlled for covariates (age, relationship status, highest qualification, accommodation status, household income, number of mental health diagnoses, and mandated attendance by social services) were conducted for each subscale from CANSAS, TSS, and MSPSS, alongside SAPAS grouping (Table 7). Analysis found higher unmet ($t(504) = -2.86$, p= .005), met ($t(504) = -2.37$, $p = .018$), and total needs ($t(504) = -3.64$, $p < .001$) significantly predicted less engagement with PMHS. Higher levels of perceived support from significant others ($t(422) = 2.25$, $p = .025$), family ($t(422) = 2.29$, $p = .023$), and overall support network ($t(422) = -2.37$, $p = .018$) significantly predicted increased engagement with PMHS.

Perceived support from friends ($t(422) = 1.58$, $p = .114$), positive experiences of mental health ($t(424) = -1.50$, $p = .134$), disclosure ($t(424) = -1.02$, $p = .309$), discrimination ($t(424) = -1.44$, $p = .152$), and overall stigma ($t(424) = -1.73$, $p = .084$), did not predict attendance. Across all analyses, mandated attendance significantly predicted reduced attendance to PMHS, yet SAPAS grouping did not. No other covariate was a significant predictor. Bonferroni corrections were applied (adjusted critical p-value, $p \leq .025$).

Table 5

Factors affecting PMHS engagement for the whole sample and split by high and low SAPAS groups.

Factor	**Whole sample** *n* (%)	**Low SAPAS** *n* (%)	**High SAPAS** *n* (%)	**χ^2 (1, *N* = 433)**	***p*-value**	**Effect size (*V*)**
Lack of time				18.77	**< .001***	.22
No influence	227 (57.2%)	134 (68%)	93 (46.5%)			
Some influence	170 (42.8%)	63 (32%)	107 (53.5%)			
Cannot get time off work				4.75	.029**a**	.12
No influence	236 (72.8%)	126 (78.3%)	110 (67.5%)			
Some influence	88 (27.2%)	35 (21.7%)	53 (32.5%)			
No one to look after my child (ren)				8.28	**.004***	.15
No influence	148 (40.9%)	85 (48.6%)	63 (33.7%)			
Some influence	214 (59.1%) ♦	90 (51.4%)	124 (66.3%)			
No transport to appointment				14.23	**< .001***	.21
No influence	247 (78.9%)	128 (88.3%)	119 (70.8%)			
Some influence	66 (21.1%)	17 (11.7%)	49 (29.2%)			
How long I had to wait for the appointment				13.61	**< .001***	.18
No influence	210 (52%)	123 (61.2%)	87 (42.9%)			
Some influence	194 (48%)	78 (38.8%)	116 (57.1%)			
Inconvenience attending appointment				5.31	.021**a**	.12
No influence	252 (64.5%)	134 (70.2%)	118 (59%)			
Some influence	139 (35.6%)	57 (29.8%)	82 (41%)			
Costs related to going to the appointment				9.17	**< .002***	.16
No influence	294 (81.9%)	156 (88.1%)	138 (75.8%)			
Some influence	65 (18.1%)	21 (11.9%)	44 (24.2%)			

Factor	**Whole sample** *n* (%)	**Low SAPAS** *n* (%)	**High SAPAS** *n* (%)	**χ^2 (1, *N* = 433)**	***p*-value**	**Effect size (*V*)**
Previous unhelpful experience with mental health services				22.69	**< .001***	.24
No influence	187 (47.8%)	111 (60.7%)	76 (36.5%)			
Some influence	204 (52.2%) ♦	72 (39.3%)	132 (63.5%)			
Partner opposed to mental health treatment				8.87	**< .003***	.15
No influence	336 (87.7%)	178 (92.7%)	158 (82.7%)			
Some influence	47 (12.3%)	14 (7.3%)	33 (17.3%)			
Not feeling motivated				27.24	**< .001***	.25
No influence	201 (46.5%)	125 (59.5%)	76 (34.2%)			
Some influence	231 (53.5%) ♦	85 (40.5%)	146 (65.8%)			
Concern about being judged				14.17	**< .001***	.18
No influence	196 (45.3%)	115 (54.5%)	81 (36.5%)			
Some influence	237 (54.7%) ♦	96 (45.5%)	141 (63.5%)			
Worried about your mental health					.168	
No influence	44 (9.8%)	26 (11.8%)	18 (7.9%)			
Some influence	403 (90.2%) ♦	194 (88.2%)	209 (92.1%)			
Encouragement by family					.396	
No influence	93 (22.1%)	42 (20.4%)	51 (23.8%)			
Some influence	327 (77.9%) ♦	164 (79.6%)	163 (76.2%)			
Encouraged by midwife/GP/obstetrician					.372	
No influence	79 (18.4%)	35 (16.7%)	44 (20%)			
Some influence	351 (81.6%) ♦	175 (83.3%)	176 (80%)			
Previous good experience with mental health services					.268	
No influence	127 (35.9%)	51 (32.7%)	76 (38.4%)			

Factor	**Whole sample** *n* (%)	**Low SAPAS** *n* (%)	**High SAPAS** *n* (%)	χ^2 **(1, *N* = 433)**	***p*-value**	**Effect size (*V*)**
Some influence	227 (64.1%) ♦	105 (67.3%)	122 (61.6%)			
Previously suffered from postnatal depression					.024	
No influence	77 (30.7%)	41 (38.3%)	36 (25%)			
Some influence	174 (69.3%) ♦	66 (61.7%)	108 (75%)			
Previously suffered from other mental health issues					.259	
No influence	48 (13.3%)	24 (15.7%)	24 (11.6%)			
Some influence	312 (86.7%) ♦	129 (84.3%)	183 (88.4%)			
An appointment time that suits me				4.43	.035**a**	.19
No influence	125 (30.6%)	70 (35.5%)	55 (25.9%)			
Some influence	284 (69.4%) ♦	127 (64.5%)	157 (74.1%)			
Wanting to discuss medications				13.17	**< .001***	.19
No influence	150 (40.5%)	86 (50.6%)	64 (32%)			
Some influence	220 (59.5%) ♦	84 (49.4%)	136 (68%)			
Wanting support/counselling					.716	
No influence	20 (4.6%)	9 (4.2%)	11 (4.9%)			
Some influence	419 (95.4%) ♦	206 (95.8%)	213 (95.1%)			
Wanting to know what help is available					.535	
No influence	28 (6.3%)	12 (5.6%)	16 (7%)			
Some influence	413 (93.7%) ♦	202 (94.4%)	211 (93%)			
Location of the appointment				5.52	.019**a**	.12
No influence	263 (73.1%)	137 (78.7%)	126 (67.7%)			
Some influence	97 (26.9%)	37 (21.3%)	60 (32.3%)			

Note. '**♦**' denotes the factor to have 'some influence' on the whole samples engagement with PMHS;'*****' denotes a clinically significant result between low and high SAPAS groups; '**a**' denotes a result that is no longer significant following Bonferroni corrections for multiple testing.

Table 6

Mann Whitney U analyses of CANSAS-P, TSS, MSPSS between high and low SAPAS groups

		Low SAPAS Mean (SD) *n* = 247	**High SAPAS** Mean (SD) *n* = 266	**Test statistic** *(U)*	***p*-value**	**Effect size** (*r*)
CANSAS-P						
	Met needs	2.9 (3.4)	4.2 (4.8)	28283.00	**.005***	.14, 95% CI (-.24, -.04)
	Unmet Needs	1.1 (2.1)	2.3 (3.1)	24219.50	**<.001***	.26, 95% CI (-.35, -.17)
	Total Needs	4.0 (4.4)	6.5 (6.1)	25172.00	**<.001***	.23 95% CI (-.33, -.14)
TSS						
	Disclosure	26.0 (7.2)	28.6 (7.4)	19072.00	**<.001***	.19, 95% CI (-.29, -.08)
	Discrimination	26.3 (8.1)	32.6 (0.6)	12618.50	**<.001***	.46, 95% CI (-.54, -.37)
	Positive aspects	4.8 (1.9)	5.3 (2.1)	20282.50	**.014***	.13, 95% CI (-.24, -.03)
	Total Stigma	57.1 (13.9)	66.5 (12.6)	14611.50	**<.001***	.38, 95% CI (-.47, -.28)
MSPSS						
	Significant other	6.1 (1.04)	5.7 (1.7)	27225.50	**.002***	.17, 95% CI (.07, .28)
	Family	5.2 (1.4)	4.6 (1.7)	27956.50	**<.001***	.21, 95% CI (.10, .31)
	Friends	5.4 (1.1)	4.6 (1.4)	31156.50	**<.001***	.34, 95% CI (.24, .44)
	Total Support	5.6 (1.0)	4.9 (1.2)	30583.00	**<.001***	.32, 95% CI (.22, .41)

Note. '*' denotes a clinically significant result.

Table 7

Eleven multiple regression analyses exploring whether CANSAS, TSS, and MSPSS, alongside SAPAS grouping and covariates predicted attendance to PMHS.

	Regression models	**Regression predictors**	**Test statistic for regression model**	**Test statistic for predictor**	***p*-value**	**Effect size (R^2)**
			$F(24, 393)$	$t(504)$		
CANSAS-P						
	(1) Met needs		4.35		**<.001***	.21
		SAPAS grouping		-1.32	.188	
		Mandatory attendance		-3.66	**<.001***	
		Met needs		-2.37	**.018***	
	(2) Unmet Needs		4.48		**<.001***	.22
		SAPAS grouping		-1.11	.269	
		Mandatory attendance		-4.87	**<.001***	
		Unmet needs		-2.86	**.005***	
	(3) Total Needs		4.74		**<.001***	.23
		SAPAS grouping		-1.19	.233	
		Mandatory attendance		-3.02	**.003***	
		Total needs		-3.64	**<.001***	

	Regression models	Regression predictors	Test statistic for regression model	Test statistic for predictor	*p*-value	Effect size (R^2)
			F(24, 393)	*t*(424)		
TSS						
	(4) Disclosure		3.80		**<.001***	.21
		SAPAS grouping		-0.95	.341	
		Mandatory attendance		-5.24	**<.001***	
		Disclosure		-1.02	.309	
	(5) Discrimination		3.85		**<.001***	.21
		SAPAS grouping		-0.63	.531	
		Mandatory attendance		-5.13	**<.001***	
		Discrimination		-1.44	.152	
	(6) Positive aspects		3.86		**<.001***	.21
		SAPAS grouping		-0.95	.345	
		Mandatory attendance		-5.10	**<.001***	
		Positive aspects		-1.50	.134	
	(7) Total Stigma		3.90		**<.001***	.21
		SAPAS grouping		-0.60	.547	
		Mandatory attendance		-5.26	**<.001***	
		Total Stigma		-1.73	.084	

	Regression models	Regression predictors	Test statistic for regression model	Test statistic for predictor	*p*-value	Effect size (R^2)
			F(24, 393)	*t*(422)		
MSPSS						
	(8) Significant other		4.74		**<.001***	.22
		SAPAS grouping		-0.93	.354	
		Mandatory attendance		-4.67	**<.001***	
		Significant other		2.25	**.025***	
	(9) Family		4.01		**<.001***	.22
		SAPAS grouping		-0.76	.450	
		Mandatory attendance		-5.30	**<.001***	
		Family		2.29	**.023***	
	(10) Friends		3.86		**<.001***	.21
		SAPAS grouping		-0.71	.476	
		Mandatory attendance		-5.24	**<.001***	
		Friends		1.58	.114	
	(11) Total Support		4.07		**<.001***	.22
		SAPAS grouping		-0.59	.555	
		Mandatory attendance		-5.15	**<.001***	
		Total support		2.53	**.012***	

Note. All regression models included the covariates of age, relationship status, highest qualification, accommodation status, household income, number of mental health diagnoses, and mandated attendance by social services. Only the covariate of mandated attendance was reported as no other covariate was a significant predictor; '*' denotes a clinically significant result.

Experiences of PMHS

Five quantitative variables assessed participants' experiences of support provided by PMHS (Table 8). When compared to low SAPAS participants, high SAPAS participants reported feeling significantly less listened to and that their concerns were treated less seriously (small effect size, $r = .14$). For participants' experience of feeling supported with their mental health, the high SAPAS group scored lower than the low SAPAS group (small effect size, $r = .16$). High SAPAS participants reported feeling significantly less involved in the treatment choices at PMHS than low SAPAS participants (small effect size, $r = .16$). No significant difference was found between SAPAS groups on whether they received the mental health care that mattered. Finally, high SAPAS participants had significantly less confidence in the skills and techniques used by PMHS to support their mental health difficulties (small effect size, $r = .15$).

For each variable, separate multiple regression analyses were computed to control for covariates (age, relationship status, highest qualification, accommodation status, household income, number of mental health diagnoses, and mandated attendance by social services). Multiple regression analysis indicated that SAPAS grouping no longer predicted participants' experience of feeling listened to and their concerns treated seriously, $t(505) = -1.18$, $p = .238$, nor feeling supported with their mental health to better address their difficulties, $t(505) = -1.86$, $p= .064$, nor feeling involved in making choices about their PMHS treatment, $t(505) = -1.98$, $p = .049$, once Bonferroni corrections were applied (adjusted critical p-value, $p \leq .025$). No covariate coefficient was found to independently predict these variables of experience. However, when controlling for these seven covariates, SAPAS grouping did still predict participants' level of confidence in the skills and techniques used by PMHS, $F(27,365) = 1.06$, $p = .382$, $R^2 = .07$, $t(505) = -2.53$, $p = .012$, with high SAPAS reporting significantly lower scores.

Table 8

Mann Whitney U analyses of PMHS experiences between high and low SAPAS groups

	Whole Sample Mean (SD) *n* = 513	**Low SAPAS** Mean (SD) *n* = 247	**High SAPAS** Mean (SD) *n* = 266	**Test statistic** *(U)*	***p*-value**	**Effect size** (*r*)
Feeling listened to	3.1 (1.0)	3.2 (1.0)	3.0 (1.0)	22083.00	.008*	.14, 95% CI (.03, .25)
Feeling supported with mental health	2.8 (1.2)	3.0 (1.3)	2.7 (1.2)	22456.00	.003*	.16, 95% CI (.05, .27)
Feeling involved in treatment choices	2.8 (1.2)	3.0 (1.3)	2.7 (1.2)	22297.00	.005*	.16, 95% CI (.04, .27)
Receiving the mental health care that mattered	2.6 (1.3)	2.6 (1.2)	2.5 (1.3)	20705.50	.196	.07, 95% CI (-.04, .19)
Confidence in the skills and techniques used	2.7 (1.2)	2.8 (1.2)	2.6 (1.1)	22242.50	.007*	.15, 95% CI (.04, .26)

Note. '*****' denotes a clinically significant result.

Qualitative experiences of PMHS from mothers with probable PD

All participants with high SAPAS scores (*n* = 266) provided free text responses. Thematic analysis of responses generated 152 codes. This resulted in four overarching themes, each encompassing several subthemes (Table 9). The first theme captured the many aspects of PMHS that were valued by participants; the second pertained to how support from PMHS enabled change; the third theme concerned aspects of PMHS that were challenging and negatively impacted support; and finally, the fourth labelled the reservations mothers had about engaging with PMHS. Overall, the high SAPAS group reported mixed experiences of PMHS, both highlighting how vital the support was and the change this invited, as well as aspects of the care that they felt were unhelpful for their recovery.

Table 9

Table of thematic analysis themes and subthemes.

Themes	Subthemes
1."The perinatal mental health team saved my life": The support I needed	1.1. Specialist and holistic care
	1.2. Adaptable and prompt service delivery
	1.3. My "lifeline": having time to hear me
	1.4. Giving me a voice: advocacy and autonomy in treatment
2. Growth and transformative experiences: what treatment from PMHS enabled	2.1. "It's not my fault": providing clarity and hope in difficult moments
	2.2. Processing distress and new skills learnt
3. "I needed help and it wasn't there": obstacles experienced with PMHS support	3.1. Impacts of COVID-19
	3.2. Feelings of over-medicalisation
	3.3. Abrupt discharge and endings
	3.4. Wider system issues
	3.5. Internal barriers to help
4. Fears and concerns about engaging with PMHS	4.1. "Unfit mother": judgement and stigma from self and others
	4.2. Consequences and outcomes: what would happen next?
	4.3. Am I "ill enough"?

Theme 1: "The perinatal mental health team saved my life": The support I needed

This captured aspects of PMHS that mothers valued. Many mothers found the service vital in their recovery, naming they "wouldn't be where I am today without it" (P28).

Subtheme 1.1: Specialist and holistic care

An element of care that was repeatedly highlighted as being useful, was the treatment provided by PMHS: "they put myself and my baby first and helped to get me into a better place" (P14). Mothers valued the specialist treatment offered, with many naming specific therapeutic modalities that targeted their perinatal mental health difficulties: "The Perinatal CBT support I received in my first pregnancy was very helpful as it was focused particularly on pregnancy anxiety and fear" (P188). The specialist care extended beyond the treatment type, with mothers reporting to benefit from care provided by staff who were skilled in both supporting their mental health as well as their journey into motherhood.

> "They understand new mum stuff as well as regular mental health issues." (P5)

Building on this, participants appreciated all parts of their identity being held in mind when receiving support, with staff skilfully balancing the context of motherhood while acknowledging their other life experiences, to "really understand me as a whole and not just how I was after having a baby and acknowledging previous traumas I have experienced" (P190).

Subtheme 1.2: Adaptable and prompt service delivery

Mothers praised the methods of treatment delivery from PMHS, for example, the flexibility: "It was done in a way that suited me (video calls) especially as I had a C Section and couldn't attend in person due to not being able to drive" (P41). Flexibility also translated to how PMHS addressed and responded to changing mental health needs.

> “I felt that the support was at the right level for how I felt at each time. When I just needed light support, that was given. When I needed intensive support, that was given” (P75)

Participants found treatment delivery to be helpful as it was provided promptly.

> “I had a care coordinator who I could speak to any time I needed” (P129)

Linked to this, mothers found working with consistent staff members fostered strong therapeutic relationships, “having the same 2 midwives throughout helped a lot and they helped me with so many difficulties I had” (P222), which encouraged mothers to ask for the support when they needed it.

Subtheme 1.3: My “lifeline”: having time to hear me

PMHS were reported by mothers to provide a safe and secure place for them to share how they were feeling and in return “be heard” (P113) and “listened to” (P261). This invited mothers to feel less alone with their perinatal mental health difficulties, as well as experiencing validation from others. Participants explained how PMHS cared for them and were on “my side” (P201) and “wanted to help me” (P174) which mothers found invaluable in the service.

> “I felt they genuinely cared and didn’t make me feel silly about my anxiety. They took me seriously” (P81)

> “I feel able to trust her enough to be open about my mental health. I feel that she genuinely cares about me” (P211)

Mothers expressed a uniqueness in having this time out of their busy schedule in motherhood to be supported, with many noting a lack of other available avenues to support their mental wellbeing. PMHS provided “time and space to pick through my thoughts and emotions” (P262). The value of this time to explore, meant that service users could focus on “the deeper issues, not just scratching the surface & assuming that’s all there is to it” (P58), which participants felt aided their mental health recovery.

Subtheme 1.4: Giving me a voice: advocacy and autonomy

Participants appreciated that PMHS invited service users to assert preferences for care, a novel experience for many participants.

> “Given the opportunity to be more involved in my care as I struggled previously to talk to professionals and voice my opinions about my pregnancy” (P67)

It seems PMHS set-up the support in a way that allowed mothers to have a choice in how the treatment would look from the beginning, “I was involved with what I felt I needed, what worked and hadn't worked for me in the past and felt my care was tailored using this information” (P215). The position of having a choice in care was then supported and advocated to the wider maternity system, with mothers valuing how PMHS aided their voice to be heard in other maternity care contexts, such as in the creation of birthing plans.

> “I was supported throughout pregnancy and had people to advocate for me to have the birth I needed” (P44)

Theme 2: Growth and transformative experiences: what treatment from PMHS enabled

This pertained to the impact treatment from PMHS had on the mothers' wellbeing and attitude towards their mental health.

Subtheme 2.1: "It's not my fault": providing clarity and hope in difficult moments

One change that participants associated with PMHS involvement was an increased understanding of the mental health difficulties they were experiencing. Participants described this occurring through receiving psychiatric diagnoses or creating a psychological formulation with PMHS.

> "It was helpful to be diagnosed with PTSD and birth trauma and to understand why I felt like I did" (P246)

The mothers felt this enabled them to "identify what's triggered my depression or PTSD" (P122) and therefore appropriately respond and plan for potential triggers. Furthermore, an increase in understanding provided them with autonomy and a sense of control that they were able to do things to support and improve their wellbeing – "my mind didn't control my pregnancy" (P216). This led to a reduction in self-blame that participants were feeling about having perinatal mental health difficulties.

> "I was reassured that the problem wasn't me, as such, it was that there was a chemical imbalance that needed to be sorted" (P184)

Lastly, gaining insight into their mental health aided mothers to normalise the challenges of pregnancy and early motherhood, as well as the commonality of perinatal mental health difficulties: “Support that I wasn’t going mad it was quite normal” (P195).

Subtheme 2.2: Processing distress and new skills learnt

Another transformation that participants attributed to PMHS was changes in their mental health. One way they noticed this change was an increase in therapeutic coping strategies.

> “Skills and mental tool kit to deal with ongoing anxiety” (P178)

As well as learning new coping strategies to combat distress, participants experienced the process of talking with PMHS relieved distress. As such, participants reflected on the “catharsis” (P61) and release that speaking with PMHS provided.

> “Helped me process my thoughts and guilt” (P11)

Theme 3: "I needed help and it wasn't there": obstacles experienced with PMHS support

Several challenging aspects of the care provided by PMHS were reported.

Subtheme 3.1: Impacts of COVID-19

Numerous participants mentioned COVID-19 and the impact this had on service delivery. Participants described during and following COVID-19 lockdowns, appointments from PMHS were provided through virtual platforms only.

> “Calls were video/telephone which wasn’t the best but this was down to Covid and lockdowns etc. not the fault of the team” (P77)

For some participants reduced face-to-face support had significant consequences that impacted their therapeutic alliance with PMHS: “Didn't see anyone face to face, so couldn't trust anyone” (P54). On the other hand, some participants instead found technical issues were the main difficulty of care provided through telehealth, “The video calls kept dropping out / no sound so had to revert to phone call only” (P70). A further frustration named by participants and linked to COVID-19 was increased appointment cancellations that would “occur at the last minute” (P20).

Subtheme 3.2: Feelings of over-medicalisation

Many participants described experiencing an over-emphasis on drug treatments, reflecting upon how quickly they would first be offered and encouraged to take medication for their difficulties. Participants described finding this experience unhelpful, feeling that they would have benefited from other treatment options, rather than just medication.

> “Tried to offer tablets straight away rather than looking at different options” (P194)

Further, participants reported feeling like treatments offered were often “reactive, rather than proactive” (P21), in that support was only offered once someone was in significant mental health distress, rather than offering preventative strategies that stopped mothers reaching a crisis in the first place.

> “There is only full support for people in dire straits, rather than working to prevent people getting there in the first place.” (P46)

Some participants felt this was because PMHS had limited resources and therefore only responded to the patients who sought out support the most: “Sometimes would only respond to patients who were shouting the loudest and ignore those that were quiet” (P231).

Subtheme 3.3: Abrupt discharge and endings

The process of ending treatment with PMHS was a frequently mentioned challenge. Many participants found the discharge from the service to be unexpected and without forewarning.

> “Ending was abrupt when child turned 1 year” (P36)

In addition to this, mothers felt following the sudden discharge, there was a poor transitional period that lacked clarity. Participants described either being placed on long waiting lists, or being provided with inadequate, non-specialist care that they felt was less effective than PMHS. Some described the negative experience of being discharged to no further support.

Subtheme 3.4: Wider system difficulties

A further obstacle to receiving PMHS support was the system of wider maternity services. Some participants emphasised the difficulties of treatment and care plans created by PMHS being implemented into other healthcare environments. This led participants to feel like the suggestions of PMHS were inaccessible and lacked feasibility.

> “Once a plan had been put in place this was largely ignored by the busy maternity unit during and after birth. The work I would do in sessions felt a little pointless in the end.” (P262)

Participants felt the lack of continuity between PMHS and wider maternity services was linked to the business of the external maternity services and therefore suggestions from PMHS were not prioritised. However, inefficiencies and delays from PMHS were also pinpointed as impacting continuity of care. For example, some participants recalled PMHS not providing documented care plans quickly enough for the maternity services to implement it.

> "Promises that everyone involved in care would read and respect the birth plan to minimise PTSD triggers were broken partly because letters took so long to make it to consultants and midwives that they arrived too late and partly because consultants and midwives skipped reading them when they were there." (P139)

Subtheme 3.5: Internal barriers to help

Participants recognised that PMHS support was challenging due to their own difficulties. For example, participants labelled the process to be difficult for multiple reasons, including: "Hard to talk about my feelings" (P228) or "That they spoke about past experiences" (P10) or "Difficult to have a group session where you expose yourself to everyone for the first time" (P31).

Theme 4: Fears and concerns about engaging with PMHS

The final theme noted the emotional experience of reaching out to PMHS.

Subtheme 4.1: "Unfit mother": judgement and stigma from self and others

Most mothers spoke about the overwhelming fear of being judged for suffering with perinatal mental health problems and accessing PMHS. Several participants wrote about the worries of "judgement from family and friends" (P12) and how others may think that their mental health difficulties reflected an inability to cope as a mother.

“I felt that I would be judged as being a bad and incapable mum” (P3).

This fear was heightened for mothers due to the high stakes involved. Many spoke of the uncertainties of what may happen following them being judged to be a bad mother, for example “Someone deciding I couldn't look after my baby because I was mentally unwell” (P144) or “That my child would be taken away if they thought I wasn't coping” (P142). This stigma and judgement surrounding mental health was also internalised, with participants’ feeling “ashamed that I wasn’t coping” (P30) and “felt like I was failing when I initially asked for help” (P190).

Subtheme 4.2: Consequences and outcomes: what would happen next?

Some mothers expressed a ‘safety’ in not knowing the full extent of their mental health problems, such that accessing PMHS may lead to an increased awareness of their mental health which could lead them to feel worse.

“Getting more depressed when I get to know my mental health situation” (P60).

Participants also held concerns that after reaching out to PMHS they might be dismissed by the service describing a “worry they wouldn’t listen” (P174) indicating participants’ harboured a fear of being rejected by PMHS. On the other end of the scale however, other participants feared that asking for help from PMHS may lead to an escalation of their care, to the point that they would be admitted to a psychiatric unit.

Subtheme 4.3: Am I “ill enough”?

Finally, mothers expressed not feeling worthy of treatment “I didn’t deserve help” (P151) as well as describing fears that they might be “a burden” (P243) to the service. Participants linked these concerns to questioning whether they were “ill enough” (P87) to reach out and ask for help, and if they were to reach out, whether they would be taking the space from others as “other people needed it more” (P142). This led participants to question whether the services would “believe me” (P155) or that they may not be “taken seriously, I was wasting their time” (P1).

Discussion

The current study aimed to compare the engagement with and experiences of PMHS between mothers with and without probable PD, as well as identify barriers and facilitators of service engagement. Across the whole sample, mothers reported high levels of engagement with PMHS and positive experiences of care. Comparing mothers with and without probable PD, once group differences were controlled for, found PD grouping did not predict engagement with PMHS. Instead, mandated attendance by social services, heightened health and social needs, and reduced perceived social support predicted lower engagement with PMHS. However, mothers with probable PD reported their engagement to be influenced more by barriers that were categorised as financial, practical, interpersonal, and psychological. Mothers with probable PD reported significantly less confidence in the skills and techniques used by PMHS, while thematic analysis highlighted both valued and challenging aspects of care. These are timely and relevant findings that hope to contribute to The NHS Long Term Plan (NHS England, 2019) of transforming PMHS for mothers with PD.

Significant differences in presentation and care from PMHS were found between mothers with and without probable PD. Mothers with probable PD had lower qualifications, less relationship and financial stability, as well as having significantly higher met and unmet needs. This reinforces that compared to mothers with other mental health diagnoses, women with PD have heightened perinatal adversity (Crowley et al., 2020; Nagel et al., 2021; Pare-Miron et al., 2016; Zacharia et al., 2020). Mothers with probable PD also reported significantly lower perceived social support, which may be explained by the paradigm of epistemic mistrust, that is, a reduced ability to trust knowledge transmitted interpersonally (Fonagy & Allison, 2014). This is in line with previous research that has demonstrated having epistemic mistrust is associated with having smaller and lower quality social networks

(Campbell et al., 2021). Furthermore, PD is associated with an impairment in mentalisation (Ludemann, Rabung, Andreas, 2021) – a reflective cognitive capacity that enables one to make sense of their own and others' mental states (Fonagy, 2002; Fonagy et al., 2003). Thus it is plausible that the combination of challenges in understanding others' mental states and reduced interpersonal trust contributed to a lowered perception of social support from others.

Additional difficulties experienced by these mothers were captured through assessing mental health. Mothers with PD reported higher rates of mental health symptomology and diagnosed mental health disorders, supporting previous research that PD populations have considerable mental health comorbidity (Hayward & Moran, 2008). In addition, these mothers experienced increased stigma related to their mental health problems. Although 92% of the current sample were not required to attend PMHS by social services, a higher proportion of mothers with probable PD were (13% vs. 2.5%), endorsing previous claims that these families often have higher involvement from child protection services (Eyden et al., 2016; Nagel et al., 2021). Taking these findings together suggest that the sample of mothers with probable PD recruited for the current study display characteristics typically captured in perinatal samples of mothers with PD, tentatively suggesting that the recruited sample may reflect other perinatal samples of PD.

Engagement with PMHS and influencing factors

Mothers with probable PD reported high levels of planned and actual attendance to PMHS that did not significantly differ from mothers without PD. An important finding given previous research has suggested that mothers with PD have lower levels of engagement with services (Blankley et al., 2015; Jinks et al., 2012). Results found once group differences in mandatory attendance to PMHS due to social services was controlled for, PD grouping did not predict worse engagement with PMHS. The initial lower engagement scores of mothers with PD may therefore be being driven by the higher number of mothers required to attend by social services. The negative relationship between mandated attendance and service engagement found, aligns with previous research. Mothers with perinatal mental health problems have felt misunderstood and ‘set up to fail’ by social services, experiencing opaque care decisions, which contributed to mistrust, feelings of powerlessness, and disengagement with social services (Honey et al., 2018; Lever Taylor et al., 2019; Rayment-Jones et al., 2019; Stanley, 2003; Webb et al., 2021). Escalating patterns of mental ill-health and maternal death has been noted in families involved with PMHS and social care, yet in 38% of these cases, it was noted that improvements to care could have made a difference to outcomes (Birth Companions, 2023; MBRRACE-UK, 2022). Thus, indicating current service provisions are limited in successfully engaging and supporting the complexities of these families’ needs.

Although mothers with probable PD had significantly higher needs and reduced social support, analyses demonstrated it was these factors (needs and social support), rather than PD grouping itself, that predicted reduced engagement with PMHS. This echoes literature linking social inequalities to reduced help-seeking behaviours in mental health care (Forchuk et al., 2016; O'Mahen & Flynn, 2008), as well as literature finding increased perceived social support facilitates engagement within adult mental health care (Bjørlykhaug et al., 2022) and PMHS (Ayres et al., 2019; Buist et al., 2006; Goodman, 2009). Reduced service engagement in PD populations has previously been hypothesised to be driven by difficulties inherent to the diagnosis (Clarkin et al., 2015). However, taking together the current study’s findings indicates engagement with PMHS to be a complex, multidetermined behaviour influenced by factors irrespective of the presence of a probable PD diagnosis. A question that remains from the current study is whether difficulties that characterise PD (e.g., emotion dysregulation, interpersonal difficulties) may have contributed to the elevated adversity, social service involvement, and reduced social support experienced by these mothers.

Contrary to other findings (Button et al., 2017; Chew-Graham et al., 2008; Coates et al., 2015; Dennis & Chung-Lee, 2006; Edge, 2008; Glover et al., 2014; Jomeen et al., 2013; McGrath et al., 2013; Patel et al., 2013; Radcliffe, 2011; Slade et al., 2010), stigma did not impact engagement with PMHS, although from this study alone it is unclear why. A potential explanation for this contradictory result could be linked to differences in research methodology, with previous research utilising qualitative interviews to identify stigma as a barrier to PMHS.

A multitude of factors, both barriers and facilitators, were reported across the whole sample to have influenced decisions to engage with PMHS. Comparing the groups of mothers, mothers with probable PD reported their engagement to be significantly more impacted by barriers, indicating a greater array of challenges surrounding service engagement for these mothers. Mothers with PD detailed financial and practical barriers, such as: costs related to the appointment, and lack of transport, childcare, and time, findings which are unsurprising given these parents have heightened adversity and challenging living circumstances (Crowley et al., 2020; Eyden et al., 2016; Nagel et al., 2021; Pare-Miron et al., 2016; Zacharia et al., 2020).

Consistent with findings from other studies, mothers with PD reported previous unhelpful experiences from services, their partner opposing treatment, and concerns of judgement, were more likely to impact their decision to engage with PMHS. Findings which again highlight the relational difficulties individuals with PD may experience that interfere with service engagement. As identified by Wilson et al. (2018), mothers with PD fear judgement from services about their diagnosis and parenting. Additionally, both the current study and previous research have shown mothers with PD to have reduced social support (Bartsch et al., 2015; Dunn et al., 2020). Finally, mothers with PD reported less motivation to engage with PMHS, contributing to a inconsistent evidence base that notes PD populations to have both reduced (Verheul, 2001) and elevated (van Beek & Verheul, 2008) levels of motivation for treatment.

Experiences of PMHS

Although across the whole sample mothers quantitatively reported mostly positive experiences of PMHS, mothers with probable PD reported less confidence in the skills and techniques used by PMHS. This may also be explained by the presence of epistemic mistrust in PD populations, with Fonagy & Allison (2014) suggesting a lack of epistemic trust can reflect a trait-like tendency to mistrust others. Thus, epistemic mistrust within mothers with PD may contribute to challenges trusting the intentions and expertise of mental health professionals. This mistrust of others and services has been argued to be underpinned by challenging developmental experiences such as attachment insecurity and childhood adversity (Campbell et al., 2021). In addition, this finding connects to qualitative experiences expressed by mothers with PD who felt ‘too complex’ to be helped by PMHS (Zacharia et al., 2020), and healthcare professionals reporting a lack of knowledge and confidence in PD treatment (French et al., 2019; Morgan et al., 2022).

Thematic analysis noted mothers with probable PD found PMHS provided specialist care that adapted to address their difficulties, provided a safe space to be heard, advocated for their needs, and invited transformative changes. A contrast to Zacharia and colleagues’ (2020) account of mothers with a diagnosis of PD feeling unheard and not understood by PMHS. However only 13.2% of the current sample reported having a formal PD diagnosis with the remaining categorised into having a ‘probable PD’ by the SAPAS (Moran et al., 2003). It may be that Zacharia’s sample had more pronounced difficulties (indicated by the diagnosis) that impacted either the mothers’ experience of PMHS or the effectiveness of interventions. Also, a formal diagnosis may have invited stigma in staff and thus impacted how care was provided. Having a PD diagnosis has been associated with increased interpersonal difficulties which can impede treatment (Clarkin et al., 2015) and increased stigma from health care professionals (Markham & Trower, 2003; Stanley & Penhale, 1999). That said, the different findings may also relate to when the studies were conducted. Zacharia et al. (2020) captured women's views of PMHS seven years prior to the current study. Since then, the public health budget allocated to PMHS has increased, investing £365 million (NHS England, 2016). Additionally, services have rapidly expanded, undergoing a multitude of improvements linked to the NHS Long Term Plan (Health Education England, 2017; NHS England, 2018, 2019). Thus, PMHS may now provide services experienced more positively.

Mothers with probable PD noted several challenging experiences of PMHS, such as an over-focus on medication as the main treatment option, an experience substantiated by previous research (Lever Taylor et al., 2019). A reluctance to take medication as well as concerns around potentially being prescribed medication during the perinatal period has been associated with reduced engagement with PMHS (Webb et al., 2021). In addition, mothers with PD expressed a poor translation of treatment plans to wider maternity services as an obstacle to their care, rendering many mothers to feel like the treatment PMHS provided had a limited impact. Another challenging aspect of care was surrounding the process of ending treatment, which is often noted as difficult for those with PD evoking feelings of rejection or abandonment (Gask et al., 2013). This could be explained by attachment theory (Bowlby, 1969) which suggests that early attachment experiences shape an individual's expectations and beliefs about relationships. Many individuals with PD experience insecure or disrupted childhood attachment experiences, leading to difficulties forming secure and trusting therapeutic relationships. This may contribute to relationship transitions (such as endings) triggering early attachment-related anxieties of abandonment (Levy et al., 2015). Furthermore, given the participants' own internal barriers to help (e.g., difficulty discussing emotions) were also found to limit their experience of PMHS.

Although the current study did not specifically aim to investigate the impact of COVID-19 on PMHS, a large majority of participants experienced the service during a global pandemic which was a frequently reported disruption to care. As with many other mental health services, COVID-19 necessitated a reconfiguration of PMHS to be delivered largely by virtual/remote means. Participants found telehealth reduced trusting relationships built with staff and increased technical issues which invited frustrations – themes which mirror existing research investigating the impact COVID-19 had on PMHS (Bridle et al., 2022) and wider maternity services (Jardine & Morris, 2021; Silverio et al., 2021).

Lastly, mothers with PD expressed fears related to the consequences of service engagement. Participants conveyed concerns that PMHS involvement could invite judgements that they are an unfit mother, incapable of caring for their child. This echoes previous findings (Wilson et al., 2018; Zacharia et al., 2020) that similarly reported mothers with PD felt judged as inadequate parents due to their diagnosis. However, these concerns are not isolated to mothers with PD, with research noting across perinatal samples, mothers express perceptions of being a 'bad mum' for needing help (Chew-Graham et al., 2008; Coates et al., 2015; McGrath et al., 2013; Millett et al., 2018; Patel et al., 2013). A novel finding of the current study was mothers with PD weighing up whether they were "ill enough" to reach out to services, fearing they might be burdening PMHS and taking care away from others. This finding may reflect the low self-esteem often noted to exist within PD (Lynum, Wilberg & Karterud, 2008). Cognitive behaviour therapy conceptualises PD to be perpetuated by core beliefs about oneself as being 'inadequate' or 'flawed' (Davidson, 2008), which may explain the presence of negative self-beliefs that their needs are burdensome or imposing for services.

Strengths and limitations

This study employed a mixed methods design and collected data from a large sample. Thus, was highly powered to explore different statistical analyses, and encapsulated both in-depth exploration of participants' experiences as well as reliable comparisons between groups.

However, the current study's findings may have questionable generalisability with data primarily collected from White British, cisgender heterosexual women from educationally and financially privileged samples. Therefore, we cannot conclude whether the same levels of engagement and experiences of PMHS would translate to those of diverse backgrounds (e.g., ethnic minorities, members of LGBTQ+, less educated and financially stable) – especially given the negative association between social needs and engagement found within the present study. In addition, the current study collected data on PMHS during the COVID-19 pandemic – a period when substantial service changes.

A further limitation surrounds how the current study conceptualised engagement with PMHS as attendance to PMHS, excluding other elements of service engagement such as: how much participants engaged during the session they attended, how much participants engaged and built therapeutic alliances with staff, or whether they undertook therapeutic suggestions. As data was collected through self-report, biases such as social desirability (a tendency to report outcomes that reflect themselves in a positive light), recall bias (difficulties remembering information), or self-selection bias (motivated participants who take part in research may not represent the general population) may have influenced findings. Therefore, it is not possible to say whether the high ratings of service engagement reflect actual attendance rates. In addition, a considerable proportion of data was collected through unvalidated measures created specifically for this research project which while high in ecological validity, reduces the internal validity of the current findings.

A further constraint of the research was not comparing participants with a formal diagnosis of PD and instead administering a PD screening tool, the SAPAS (Moran et al., 2003), as the method to identify mothers with difficulties consistent with PD. Whilst the SAPAS is routinely administered in perinatal samples, it has not yet been validated within this population. Experiences common in perinatal samples (such as sleep deprivation and hormonal fluctuations) can impact a person's mental state, and therefore could also have impacted SAPAS scores. Thus, it is not certain whether the same cut-offs are suitable for this population and requires further investigation. Furthermore, research has suggested the SAPAS to be less effective at identifying individuals with antisocial, histrionic, and obsessive-compulsive PD (Hesse & Moran, 2010) and therefore the current results may not reflect how these populations engage with PMHS. Nevertheless, the SAPAS is a brief screen for probable PD that minimised respondent burden and enabled exploratory and novel data to be collected on a large sample. The classification of PD is the subject of much debate (Kim & Tyrer, 2010), and difficulties identifying PD within research studies exist. Some of these difficulties include: comorbidity across the ten PDs, grouping all ten PDs as a homogeneous group when there is heterogeneity between sub-types of PDs, screening tools used as methods of identifying PD rather than diagnostic measures, cultural and societal differences in whether behaviours and cognitions are considered 'abnormal', and the lack of longitudinal measures of PD psychopathology when a PD is characterised by enduring patterns of behaviours and cognitions. Lastly, as there is currently an absence of national data on populations that access NHS PMHS, it is not possible for the current study to compare whether the recruited sample accurately reflects those who attend PMHS.

Future research

To address the current study's limitations, one avenue for future research would be to collect data on all elements of service engagement across multiple different data points, e.g., supplementing participants' self-report with markers of engagement documented in clinical records and obtaining staff ratings of engagement. Developing and employing validated, longitudinal measures of service experience and engagement would increase the internal and external validity of future findings. Additionally, accessing clinical records across multiple PMHS in the UK may enhance participant diversity, gathering a wide range of patients' experiences and engagement, increasing the generalisability of results. Further, this would enable the comparison of those with and without a recorded PD diagnosis. This is required to understand whether the engagement and experiences of PMHS captured in the current study equate to perinatal populations with a formal PD diagnosis. Additionally, this would enable diagnostic specificity in relation to the results, allowing research to conclude whether experiences of and engagement with PMHS differs amongst the 10 PDs conceptualised within the DSM-5 (APA, 2013). Lastly, it is imperative to replicate the present study when PMHS provisions are no longer impacted by COVID-19 restructuring.

Additional research to disentangle the links between reduced PMHS engagement and mandated attendance to PMHS, heightened health and social needs, and less social support is needed to direct future service developments in how best to support families with these needs. Further, it is unclear why stigma did not predict engagement, and thus requires supplementary exploration. Future research could investigate whether experience and engagement with PMHS differs across the perinatal period (e.g., pregnancy vs postpartum). This may increase specificity of service developments by identifying the mothers with the most challenges to accessing service provisions. Finally, to sufficiently fulfil The NHS Long Term Plan (NHS England, 2019) of improving PMHS, it may be helpful to explore care pathways to PMHS between mothers with and without PD. This may be important given that within other services, PD service users experience disjointed care, with patterns of extensive service contact, yet marked gaps in service provisions and accessibility (Flynn et al., 2020; Flynn et al., 2019; Morgan et al., 2022).

Clinical implications and recommendations

Overall, attendance to PMHS and experience of the support provided was rated highly by mothers with probable PD, and for the most part did not differ from mothers without PD. Disseminating these findings to healthcare professionals may reduce the narrative that service users with PD are ‘hard to reach’ (Fonagy et al., 2017), and rather highlight characteristics (such as adversity, low social support, and social service involvement) that impede treatment. Further, disseminating the aspects of care that mothers with PD valued (e.g., specialist, prompt, and adaptable treatment that advocated for their needs), may enable PMHS to continue delivering care in a meaningful way for mothers with PD.

To improve the experience of PMHS in mothers with PD, it may be beneficial to increase transparency in care decisions. This is particularly important given the presence of interpersonal difficulties, attachment insecurity, and epistemic mistrust noted within PD populations (Fonagy & Alison, 2014) that may contribute to challenges in trusting the intentions and expertise of mental health professionals. For example, discussing a range of treatment options with mothers with PD may reduce the experience of an over-focus on medication reported in the present study. Further, sharing from the beginning the expectations of treatment length may enhance the experience of treatment endings for mothers with PD. Providing clear, unambiguous care to mothers with PD may aid the development of therapeutic alliances in a population that often have had insecure or disrupted attachment experiences and frequently demonstrate relational difficulties (Levy et al., 2015). In addition, this could improve the confidence of mothers with PD in the skills and techniques used by PMHS, by adding clarity and rationale to the care decisions being made. Providing PMHS staff with specialist training in working with service users with PD could supplement this, as previous research has noted healthcare professionals report low knowledge and confidence in PD treatment (French et al., 2019; Morgan et al., 2022). To reduce the poor translation of PMHS treatment to wider maternity services, PMHS could consider conducting interprofessional meetings to promote service collaboration and address the current barriers of implementing treatment plans. Finally, to dispel fears of engaging with PMHS amongst mothers with PD, staff could openly address and normalise fears. For example, sharing that while many mothers worry that engagement with services may lead to their baby being removed, the goal of PMHS is to support the mother-infant bond.

Considering that adversity, mandated attendance by social services, and limited social support predicted reduced attendance with PMHS rather than PD, the current study's findings suggest a need for wider service improvements that would impact a range of perinatal service users. It is worth noting, however, that these obstacles to treatment appear to be more prevalent amongst mothers with PD. Consequently, PMHS may need to adapt care more frequently for mothers with PD to reduce the barriers to care noted in this study. PMHS and wider NHS policy guidelines should consider how they support families mandated to attend by social services. This may involve developing a shared NHS and social care pathway to establish a cohesive care package, as currently services for this population are noted to be fragmented (MBRRACE-UK, 2022). As individuals with higher health and social care needs had lower PMHS engagement, and offering services which remove barriers has been shown to promote engagement with PMHS (Briscoe et al., 2022; Button et al., 2017), it may be helpful for PMHS to reduce barriers to access where possible e.g., helping with transport, offering childcare, offering outreach and home visits. Further, identifying families with adversity and advocating for unmet needs to be addressed, by potentially signposting to appropriate universal services and third-sector organisations, may aid attendance. Lower social support predicted reduced attendance, therefore, where possible it may be helpful for

PMHS to include family members in care to share treatment aims. Also developing and trialling peer support groups for mothers with lower social support (a higher proportion of mothers with PD) may promote PMHS engagement.

Conclusion

The present study, to the authors knowledge, is the first large scale study to investigate engagement with and experiences of PMHS in mothers with and without PD. Mandated attendance to PMHS by social services, heightened health and social care needs, and lowered social support predicted reduced PMHS engagement, whilst PD grouping did not. Despite this, mothers with PD did report increased barriers to engagement and less confidence in the skills and techniques used by PMHS. Thematic analysis captured positive and negative experiences of PMHS in mothers with PD. While the study’s limitations reduce the generalisability of results, it provides a timely and relevant account of how mothers with severe and complex mental health symptomology interact with and experience PMHS. The research identifies crucial areas for service improvement in PMHS, aligning with the NHS Long Term Plan's goal to improve support for mothers with PD by 2024 (NHS England, 2019). Further explorations into the interaction between attendance to PMHS and social care involvement, health and social needs, and social support networks should be prioritised to enable movement towards equitable engagement and experience of PMHS in all mothers.

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Part 3: Critical Appraisal

Introduction

This critical appraisal focuses on my experiences and reflections of designing, conducting, and analysing the empirical study. It begins by addressing the motivations behind the project, followed by the considerations surrounding the language used throughout the project. I discuss the benefits and challenges of service user involvement and online recruitment, concluding with my overall reflections and learnings from the process of completing a clinical psychology doctorate thesis.

Motivations for the research focus

My interest in the parent-child relationship is one that predates clinical psychology training, yet developed more as I learnt about attachment being one of the building blocks for mental wellbeing (Fonagy, 2002). During the doctorate, I worked in a DBT personality disorder (PD) service and witnessed disrupted childhood attachments to predispose emotion dysregulation and interpersonal difficulties. This led me to wonder how these individuals would be supported if they became parents, especially given the evidence base surrounding "ghosts in the nursery" (Fraiberg et al., 1975, p. 387), that is, a parent's own past impacting their capacity to form new attachments with their infant. In fact, research notes mothers that experience turbulent, unsupportive caregivers, are likely to struggle with interacting in developmentally appropriate ways with their infants (Reyna & Pickler, 2009).

Despite not being a parent myself, I recognised the strength and resilience involved in responding to the evolving challenges the role entails (Lewig et al., 2010) - difficulties that can escalate when a parent's mental health deteriorates (Krumm et al., 2020). Further, stemming from my feminist values and learning about the 'unpaid labour' of caregivers, typically mothers, experienced across the globe which can negatively impact mental health (Ervin et al., 2022), I was interested in how services supported parents with their mental health and parenting role.

A quarter (28.6%) of the UK population are parents to ‘dependent children’ (children ≤18 years old residing with parents and in full time education; Sanders, 2019), yet parenting support services in the UK have faced significant cuts over the years. For example, over the past decade 1,342 children centres have been closed across 50 local authorities (Lepper, 2022). However, an area that has had a recent and substantial increase in funding contributing to evolving service developments is perinatal mental health (NHS England, 2018). As part of these service developments, perinatal mental health services (PMHS) pledged to improve the support offered to parents with complex to severe mental health difficulties (NHS England, 2019). This goal, coupled with my clinical experience of working in a PD service, invited me to wonder how parents with PD responded to and experienced PMHS. I felt surprised to find only two, small-scale research studies exploring engagement and experience of PMHS in PD populations – a stark contrast to the many publications highlighting the difficulties they are likely to face throughout parenthood. I hoped through this research project, I could give a voice to these families to aid the development of more acceptable services. This felt particularly pertinent given that acceptability of services is an increasingly valuable area to policy makers (Sekhon et al., 2017), as well as an area I feel passionate about.

Considerations of language

Before embarking on this project, I was aware of the considerable controversy and stigma surrounding the diagnostic terminology of PD (Campbell et al., 2020) as well as the service user movements that have campaigned for the term ‘PD’ to be changed (Recovery in the Bin, 2019). The argument against the term follows findings that individuals with a PD diagnosis can experience significant discrimination, and many suspect the term PD contributes to the stigma experienced (Veysey, 2014). This exists within a wider debate about the validity and utility of psychiatric diagnoses (Maung, 2016) with opposing constructs such as The Power Threat Meaning (PTM) Framework (Johnstone & Boyle, 2018) conveying emotional distress and abnormal behaviour to instead exist on a continuum (rather than a binary system of mental health disorder or no disorder). The PTM framework also postulates distress frequently arises due to an individual's context and past experiences. When thinking about the diagnostic term of PD, I questioned the helpfulness of locating behaviours which are often developed during prolonged developmental trauma as an internalised 'disorder' of someone's 'personality' – especially considering the 'maladaptive' behaviours that characterise PD may be a natural reaction to adversity (Tyrka et al., 2012). Further, from observing healthcare staff explicitly share stigmatised opinions of clients based on a PD diagnosis, I did not oppose the suggestions of changing the terminology. On the other hand, I had experienced multiple service users highly identifying with the diagnosis, reporting it to be useful to make sense of themselves and access specialist mental health support.

Whilst designing the study, I had concerns that by framing my research to focus on PD, I may be inadvertently increasing the narrative that the diagnosis of PD is the 'right' way to conceptualise a person's difficulties when I felt conflicted and unsure about the terminology. Yet, I was acutely aware of my desire to promote and improve the support for this population and build a platform to invite their voices in. This felt extremely important to me, given I experienced the evidence base of parents and PD to be "problem-saturated" (White & Epston, 2004, p. 88) – a narrative with an over-focus of the challenges faced and little focus on how to support and promote these individuals on their journeys as parents. I initially wondered whether using a different term to PD, such as 'complex trauma' or 'developmental trauma' which have fewer negative connotations may be the best approach. However, following literature searches I found these concepts to be poorly defined and although may be less stigmatising, I felt concerned using these terms may produce less valid findings. This invited me to think about how my project could evoke the most effective change in PMHS and how the use of language may have an impact (e.g., naming PD or not). To help disentangle how to approach this, I explored the eligibility criteria for multiple NHS PMHS across the UK, and I saw the diagnostic terminology of PD repeatedly listed. With the support of my supervisors, I decided that producing research that was applicable to the current framework used by PMHS (one built around psychiatric diagnoses) may increase the likelihood of direct changes to services and in turn the acceptability of services. Therefore, despite initial reservations, the project was conceptualised utilising the language and terminology of PD. In hindsight, I think it would have been beneficial to consult service users and stakeholders regarding the uncertainty of language surrounding PD and is something I would prioritise in the future when conducting research. I believe this would help ensure research is applicable to clinical practice while destigmatising to the population it aims to serve.

Another instance I reflected on the use of language was whilst designing the information sheets and online survey. Through conducting this project, I learnt about the heteronormative and cisgender frameworks that many perinatal services operate under, and how this can contribute to trans and non-binary communities to feel marginalised from these services (Pezaro et al., 2023). I did not want to mirror this experience and hoped to capture as many people's experiences of these services as possible to provide valid and reliable findings to promote more acceptable PMHS. I considered how using gendered language such as 'pregnant woman' may contribute to gender-diverse clients that interact with PMHS (Pendleton, 2022) to feel excluded from the survey. However, I balanced the idea that verbose descriptions used within measures can increase confusion and reduce internal validity (Rickards et al., 2012). I approached this by clearly stating in my information sheet this project was an inclusive project for all people referred to PMHS in the past 3 years. Throughout the survey, I used gender-neutral phrases such as 'during the perinatal period' (after clearly defining this term at the beginning of the survey). Although only a small number of non-binary participants took part in the study (0.04%), this closely mimics UK statistics (0.06%; Office for National Statistics, 2023), and I have found myself wondering if their voices would have still been captured if inclusive language had not been used.

When sharing the survey, on two occasions I came across expressions of frustration towards my use of gender-neutral terms such as “pregnant or birthing people” in the information sheet. The juxtaposition of gender-neutral language inviting anger in some yet potentially enabling marginalised experiences to be captured, was a confusing experience that I had not anticipated when designing the project. Although I did not delve deeper into why these frustrations existed for those people specifically, I have learnt about the on-going debate within academic journals regarding gender-neutral terms and whether these may or may not erase experiences of women (Calvert et al., 2022; Dahlen, 2021). Despite being a challenge that invited some discomfort, it prompted me to reflect upon my stance as both a clinician and a researcher. As such, I recognised my desired position of providing care and conducting research that is person-centred (following a person’s preferences, needs, and values; Health Education England, 2017) and therefore adopting an inclusive stance felt vital. Further, this experience has taught me how inclusivity often begins with language (Thompson, 2022).

Service user involvement

Service user involvement has become increasingly routine in health care research (Boote et al., 2011). I greatly valued the input from both service users and stakeholders in helping shape the content of the online survey. I found this process identified blind spots that I had, as neither a mental health service user nor at that moment working within a PMHS. For example, this led to editing questions that asked participants to report details on services involved in their care, to include clear definitions of each service.

As stated by Den Breejen et al. (2014), I hoped by including service user involvement I would narrow the gap between patient and clinician priorities, yet I did not pre-empt the challenge of this balance. Speaking with a service user, I learnt about many challenges experienced across the perinatal health care system (e.g., fragmented communication from medical staff during birth) and wider society (e.g., lack of paternity leave) that they felt contributed to their mental health distress. Experiences which are substantiated in research (Rayment-Jones et al., 2019; Silverio et al., 2021). I found myself being drawn to expanding my project to include more variables, with a desire to create a project that would 'identify and fix' all concerns mothers and birthing people experienced – an enthusiastic albeit optimistic approach. However, I quickly realised how unrealistic this aim would be for a clinical psychology doctorate project, and recognised how a research project with succinct aims, and thus clinical implications, can be incredibly powerful for service development. Although my desire and motivation for conducting research that alleviates perinatal mental health difficulties remains, I am coming away with a developed understanding that this motivation does not have to be used all at once in one research project. Further, I have learnt how exploratory research that starts the conversation holds great value too. The empirical paper imparts novel findings in a previously unresearched area, it does not provide every answer, however one of its strengths is that it has provided a platform for future research to continue to build on.

Recruitment

I found recruitment a positive experience and one which contrasted my previous experience as a researcher. Charities and organisations eagerly promoted the research project, while also validating the importance. I experienced third sector workers sharing their own personal experiences with perinatal mental health, providing an unexpected context to the high prevalence rates often documented in research (Fisher et al., 2012). I was invited to present the research opportunity at large national charity meetings, conferences, and even invited for breakfast at a charity's mother-and-baby group. Although I was unable to attend these due to commitments of the doctorate, I found this an incredibly moving experience.

This project was my first experience of conducting research online. Previous research notes snowball sampling via social media (the current study's method) to be an effective online recruitment strategy, especially when reaching participants who may struggle to access research in more traditional means (Fazzino et al., 2015; King et al., 2014). This was an important consideration in the current project, as it was hoped the survey might reach individuals that had been referred to PMHS but may not have engaged (views that I hypothesised might not have been captured if I had recruited from PMHS directly). However, the current study found a 'ceiling effect' of self-rated levels of attendance to PMHS, suggesting very little of the sample reported low levels of engagement with PMHS. The current project alone cannot determine whether the high self-reported attendance was a true representation or a biased, elevated estimate. However, one consideration I have had since completing the project which could have introduced bias, is how the project was advertised through a recruitment poster that invited those referred to a PMHS to take part. This meant recruitment relied upon a certain level of understanding of mental health services, one element of the multifaceted construct coined 'health literacy', that is, an ability to obtain, understand and use knowledge and services to promote health (Liu et al., 2020). Thus, the recruitment method may have been inaccessible for individuals with low health literacy, which is estimated to be around half of the UK population (Gursul, 2022; NHS, 2021) and elevated in minoritised and disadvantaged groups (Powell, 2022). This may explain the over-representation of White British, educationally and financially privileged participants in the current sample. This is important to note as research documents Black and ethnic minority groups have reduced access to mental health services and PMHS (Jankovic et al., 2020;

Mercer et al., 2019). Therefore, as the current sample was primarily White British, this may mean those who typically struggle most to access PMHS are unlikely to have been captured in the current project's estimates of engagement with PMHS.

Other reflections on the recruitment strategy are based upon my clinical experience. I have often observed service users, especially when in crisis, to be referred to multiple healthcare providers at once, potentially reducing the clarity to service users about service provisions. I have found service users are not always certain about which services may have helped them, or what the professional role of the person supporting them was, yet they may fondly recall the first name of the person and the helpful elements of their care. This has left me wondering about the validity of the research's inclusion criteria relying on participants to know that they were referred to PMHS. A further question I have, is whether individuals referred to PMHS but who did not attend a single appointment would reliably recall this referral, perhaps meaning this population may not have accessed the survey. Additionally, only relying on online recruitment may have limited the diversity of responses, especially as it has been shown that social media use and choice of social media platform interacts with social, cultural, and economic status (Yates & Lockley, 2018). Lastly, the survey was only provided in English language and required people to have the cognitive abilities to engage with a survey unprompted for around 15 minutes – further potential barriers for participants and factors that may not be conducive of a generalisable sample. Nevertheless, online recruitment was an incredibly time efficient data recruitment strategy which is an invaluable benefit while juggling the competing demands on the clinical doctorate. As well as this, online recruitment provided participants with anonymity which may have promoted participants' willingness to share all aspects of their experience of PMHS.

If I were to complete this thesis again, I might consider utilising multiple recruitment strategies, for example, supplementing online recruitment by recruiting through clinics, as well as providing face-to-face support with questionnaire completion. I would also prioritise collaborating with organisations that specifically support disadvantaged and minoritised individuals during pregnancy/early motherhood to capture a more diverse sample. In future research I think it would be helpful to consider expanding the pilot and service user feedback on recruitment methods and recruitment materials e.g., the research advert.

Final thoughts

Undertaking such a large piece of work has acted as a catalyst for self-reflection. The empirical project presented in part 2 was in fact my second research proposal, with my initial research proposal unable to go ahead due to NHS ethics difficulties. I can distinctly remember the moment in April 2022 when I was without a viable project, and I am still surprised at how relatively unphased I was, preoccupied with a motivation to problem solve by searching for gaps in the existing evidence base for a new thesis topic. Clinical doctorate training has aided my ability to be adaptable, remain calm, and critically analyse and problem solve in the face of difficulties. Qualities that will serve me well as I transition to being a qualified clinical psychologist in the ever-changing NHS climate.

Another interesting experience of conducting the current project was how this intersected with my final year perinatal mental health placement. Informed by the current project's findings, I found myself wondering about barriers to access for new referrals to the service as well as what my role in promoting access could look like. I also presented the findings to the parent-infant psychology (PIP) team I worked within, which sparked discussions about how service users supported by social care engaged with the PIP service, and whether further considerations about these families are needed. This experience brought to life the scientist-practitioner model, that is, the ability for a clinical psychologist to be skilled in research and practice, in order to simultaneously enable research to influence practice, and practice to shape research (Jones & Mehr, 2007). Embodying the scientist-practitioner model however was by no means a simple task. At times it was challenging to hold the responsibilities of a practitioner (e.g., providing care to service users in the NHS), while balancing research demands and deadlines. Despite this, it is an opportunity that has strengthened my skills and understanding as a researcher and a clinician.

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Appendix A: Example of data extraction form

Reference (authors, year)	
Study Design	
Country	
Sample Characteristics	
	Sample size
	Age
	Gender
	Ethnicity
	Parenting role
	Psychopathology/diagnosis
Intervention	
	Therapeutic Model
	Delivery Format
	Frequency/length
	Comparison group
Main findings	
	Effectiveness – parent outcome
	Effectiveness – parent-child outcome
	Effectiveness – child outcome
	Feasibility
	Acceptability

Appendix B: Researcher’s statement of reflexivity: mixed methods systematic review

The author (EB) is employed as a trainee clinical psychologist and holds a particular interest in parent-infant attachment, developmental trauma, and interpersonal difficulties. The author has completed two, year-long placements within both a personality disorder and a parent-infant psychology service. The author was mindful of potentially interpreting findings in line with her clinical experience. For example, her own expectations and beliefs about the acceptability of treatments based upon her experiences of working with clients who are parents and who are diagnosed with a personality disorder, as well as her own clinician held beliefs about the utility of particular psychological schools of thought, conceptualisations of difficulties, and psychological therapies. Some of these beliefs included: 1) DBT being an effective model of treatment for PD however clients finding contingency plans less acceptable; 2) conceptualising PD in a developmental trauma framework is helpful; and 3) parent-infant psychotherapy is helpful in formulating parent-infant difficulties but has reduced clarity around treatment targets. To reduce the impact of potential biases on qualitative analysis, the author spent time reflecting upon her professional context that she may be acting out of before analysing data. Further, during data coding, she noted when data aligned or conflicted with her experiences and preconceptions to ensure coding was applied consistently. During synthesis, she attempted to reduce over or under weighting data when forming themes by discussing with research supervisors and incorporating their views.

The author also acknowledged her personal context – a white British woman, who is not a parent and does not have any psychiatric diagnoses. The author reflected upon how her understanding of acceptability and what are acceptable treatments may differ from the population being studied. Moreover, using her knowledge of Social GGRRAAACCEEESSS (Burnham, 2012) helped the author to consider how psychological practice and research can lead to further disadvantage to minoritised communities, and how her understanding of mental health is largely influenced by western conceptualisations of psychiatric diagnoses. The author felt strongly about not re-enacting this and therefore throughout the process thought about these issues, to help reduce them being side-lined by her white, western lens.

Appendix C: Descriptions of parenting interventions trialled in the included studies

Theoretical Underpinning	Intervention	Description of intervention
Psychodynamic	Group psychotherapy for severe personality disorder	35 weeks, group (parent-only) therapy. Sessions focused on: • Parent-child relationship building • Emotion regulation • Problem solving • Using parents own personal history to understand current parent-infant relationship • Self-esteem Goals of intervention: • A therapeutic environment that supports reenactment and observation • Self-reflection of problematic interpersonal transactions • Increasing empathetic understanding of the child • Learning coping strategies • The opportunity to modify expectations of parent and child relationship through the context of group transactions
	The conversational model	Twice weekly individual, parent-only therapy sessions for 12 months. Sessions focused on: • Using the therapeutic relationship and conversations to foster the emergence of consciousness

		Goal of intervention: • Promoting "higher order consciousness" to increase the empathetic capacity to child • Encourage emotional attunement to child • Recognising their child's needs and feelings • Matching the parental behaviour to the child's emotional state • Increasing the parent's capacity to interpret, respond, and convey emotional resonance to the child
Behavioural	Video-feedback intervention to promote positive parenting	6 fortnightly parent-infant therapy sessions (each 90-min). Sessions focused on: • Videoing the parent and child engaging in play and everyday activities • Watching the videos back and providing parents with feedback to promote sensitive parenting practices and increase understanding of the child's attachment and exploratory behaviours Goal of intervention: • Increasing sensitive parenting • Increasing understanding surrounding the child's behaviour

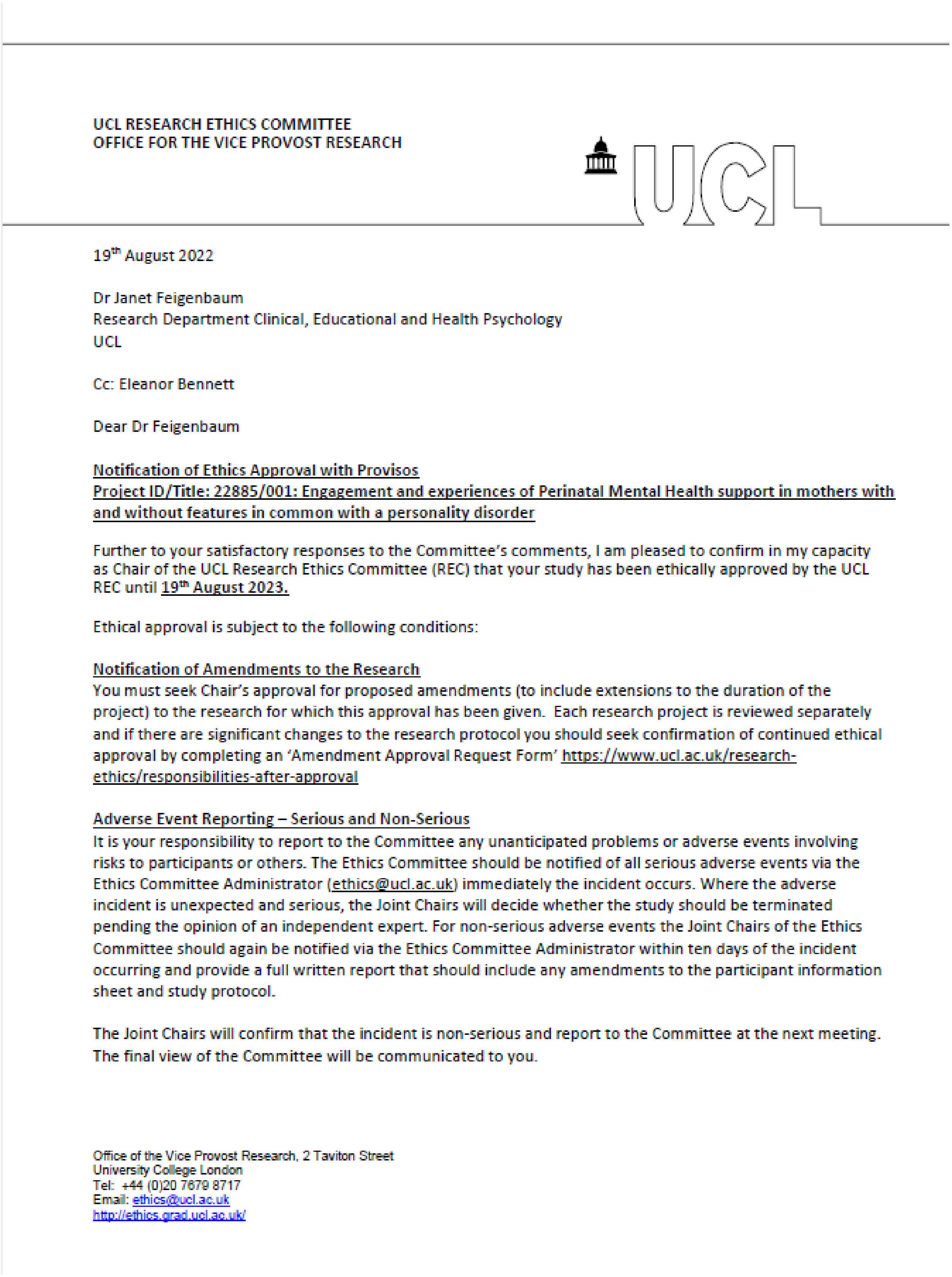
		• Managing parental self-critical feelings and anxieties • Promoting positive feelings towards their child
	Parent-Child Interaction Therapy with emotion regulation strategies from Dialectical Behaviour Therapy	16 parent-child weekly sessions. Sessions focused on: • Psychoeducation of DBT emotion regulation and distress tolerance skills • In-vivo parenting coaching • Mindfulness of emotional experiences linked to child • Learning how to validate their child's emotions • Reviewing diary card and skills card used in the week Goal of intervention: • Increase parenting skills (E.g., structured responses to child non-compliance behaviour) • Increase emotion regulation, distress tolerance and mindfulness in challenging parent-infant situations • Increase understanding of child's behaviour • Promote parent-child relationship
	Mother-infant Dialectical Behaviour Therapy (MI-DBT)	24-25 weekly group sessions (each 2.5hrs).

		Sessions focused on: • Teaching DBT skills in mindfulness, distress tolerance, emotional regulation, and interpersonal effectiveness in the parenting context Goal of intervention: • To promote the use of DBT skills in challenging parent-infant interactions • Provide skills for the mother to support her infant's own social and emotional development
	DBT-based Parenting skills	12 weekly group sessions. Sessions focused on: • Psychoeducation on the impact of parental PD on child development • Mindfulness in interactions with their child • Psychoeducation on the child's need • Coping strategies for stress • Dealing with mother-child conflicts • Emotion regulation • Communicating with children • Realistic expectations of parenting • The importance of self-care Goal of intervention:

		• Increasing parents understanding of child development • Setting realistic expectations of parenting • Increasing skills in emotional regulation, mindfulness, dealing with conflicts, communication, and self-care
Transtheoretical	Mindful parenting group	12 weekly group sessions (each 2hrs). Sessions focused on: • Practices of mindfulness at the beginning and ending of every session • Psychoeducation on ‘good enough mother’, attachment, parent-child interactions, emotional awareness, and self-compassion • Learnings approached in a conversational manner to encourage connections to their own experiences during childhood and parenthood Goal of intervention: • Improving mothers’ emotion regulation abilities • Positively influencing their child’s emotional development • Addressing reflective functioning deficits within the parent-child relationship

		• Promoting positive changes in parents
	Helping families programme-modified	16 weekly individual, parent-only therapy sessions. Sessions focused on: • Parenting, emotional regulation, self-care strategies, and interpersonal functioning • Drawing links between how the parents' emotional and interpersonal difficulties impact on parenting and the child's functioning Goal of intervention: • Improve child mental health and behavioural problems • Improve parent-child relationships • Improve parental emotion regulation and coping • Improve social resources

Appendix D: UCL Research and Ethics Committee Approval letter



UCL RESEARCH ETHICS COMMITTEE
OFFICE FOR THE VICE PROVOST RESEARCH

19th August 2022

Dr Janet Feigenbaum
Research Department Clinical, Educational and Health Psychology
UCL

Cc: Eleanor Bennett

Dear Dr Feigenbaum

Notification of Ethics Approval with Provisos
Project ID/Title: 22885/001: Engagement and experiences of Perinatal Mental Health support in mothers with and without features in common with a personality disorder

Further to your satisfactory responses to the Committee's comments, I am pleased to confirm in my capacity as Chair of the UCL Research Ethics Committee (REC) that your study has been ethically approved by the UCL REC until **19th August 2023.**

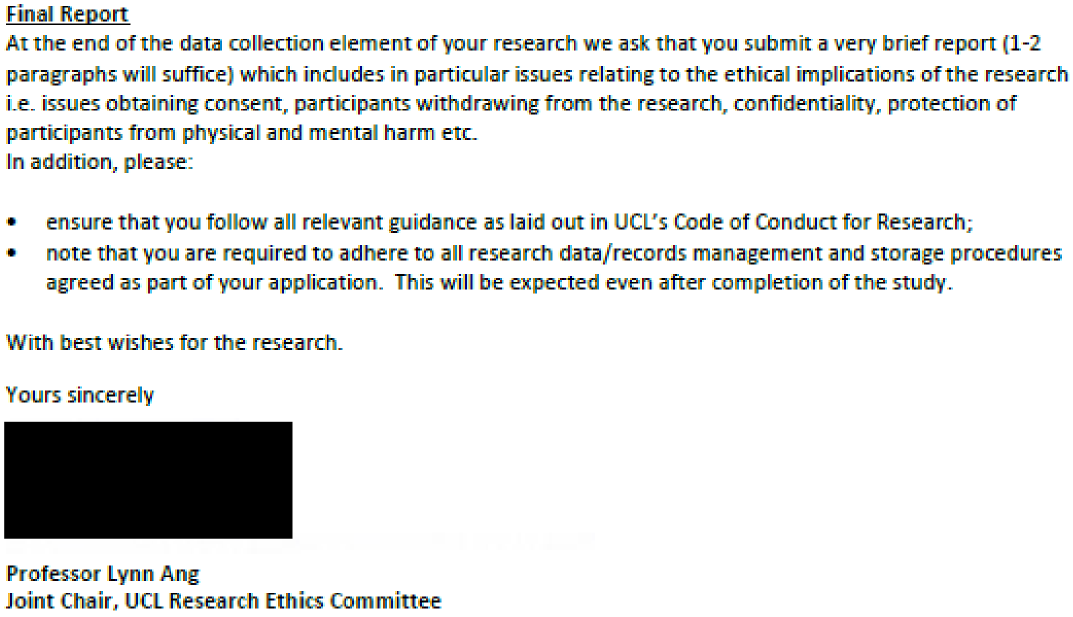
Ethical approval is subject to the following conditions:

Notification of Amendments to the Research
You must seek Chair's approval for proposed amendments (to include extensions to the duration of the project) to the research for which this approval has been given. Each research project is reviewed separately and if there are significant changes to the research protocol you should seek confirmation of continued ethical approval by completing an 'Amendment Approval Request Form' https://www.ucl.ac.uk/research-ethics/responsibilities-after-approval

Adverse Event Reporting – Serious and Non-Serious
It is your responsibility to report to the Committee any unanticipated problems or adverse events involving risks to participants or others. The Ethics Committee should be notified of all serious adverse events via the Ethics Committee Administrator (ethics@ucl.ac.uk) immediately the incident occurs. Where the adverse incident is unexpected and serious, the Joint Chairs will decide whether the study should be terminated pending the opinion of an independent expert. For non-serious adverse events the Joint Chairs of the Ethics Committee should again be notified via the Ethics Committee Administrator within ten days of the incident occurring and provide a full written report that should include any amendments to the participant information sheet and study protocol.

The Joint Chairs will confirm that the incident is non-serious and report to the Committee at the next meeting. The final view of the Committee will be communicated to you.

Office of the Vice Provost Research, 2 Taviton Street
University College London
Tel: +44 (0)20 7679 8717
Email: ethics@ucl.ac.uk
http://ethics.grad.ucl.ac.uk/



Final Report

At the end of the data collection element of your research we ask that you submit a very brief report (1-2 paragraphs will suffice) which includes in particular issues relating to the ethical implications of the research i.e. issues obtaining consent, participants withdrawing from the research, confidentiality, protection of participants from physical and mental harm etc.
In addition, please:

- ensure that you follow all relevant guidance as laid out in UCL's Code of Conduct for Research;
- note that you are required to adhere to all research data/records management and storage procedures agreed as part of your application. This will be expected even after completion of the study.

With best wishes for the research.

Yours sincerely

[redacted]

Professor Lynn Ang
Joint Chair, UCL Research Ethics Committee

Appendix E: Research Advert

Study approved by the UCL REC: 22885/001
Researchers: Ellie Bennett, Dr Janet Feigenbaum, Dr Jill Domoney

UCL

Are you currently pregnant?
OR
Have you been pregnant in the past 3 years?

Were you referred for mental health support during your pregnancy and/or the first year after giving birth?

If you answered 'YES' to the questions above, we would like to hear from you.

What is this research about?

We want to explore people's experiences of Mental Health Services during pregnancy and the first year after giving birth (*Perinatal Mental Health Services*). Little is known about how helpful people find these services, and why some people access these services and others don't.

What would I have to do?

A **20-minute online survey** which asks you questions about you, your mental health, your pregnancy, and whether or not you used Mental Health Services during pregnancy.
This survey is **anonymous** and **confidential.**

This highly valuable research aims to inform the development of Perinatal Mental Health Services to better support mothers in times of need.

Prize draw of up to £100

For more information

1. **VISIT** https://tinyurl.com/supporting-mums
2. **Contact via email:** [redacted]
3. **Contact via Twitter:** @Supporting_mums

Appendix F: Information sheet and consent forms

Study approved by UCL Research Ethics Committee.
UCL REC Approval ID Number: 22885/001
Participant Information Sheet Version 3.0

Information Sheet for Participants

RESEARCH DEPARTMENT OF CLINICAL, EDUCATIONAL AND HEALTH PSYCHOLOGY

Research Team Contact Details:

[redacted]

Study approved by UCL Research Ethics Committee. Approval ID Number: 22885/001.

Title: Engagement and Experiences of Perinatal Mental Health Support in Mothers with and without features of personality disorder

We would like to invite you to take part in a research project being conducted at UCL. Before you decide whether you would like to take part, it is important to understand why the research is being done and what participation will involve. Please take time to read the following information carefully. If you would like to ask the researchers any questions regarding taking part, please do not hesitate to contact us via email [redacted] Thank you very much for reading this and considering taking part.

Why is this study being conducted?

This study aims to explore and understand how mothers, and pregnant and birthing people experience Perinatal Mental Health Services. The "perinatal" period spans from the moment a person becomes pregnant to 1 year after giving birth. It is well documented that this can be a challenging time for many mothers*, with research noting between 20-30% of mothers experience poor mental health. However little attention in research has focused on how mothers experience NHS Perinatal Mental Health Services and the support they offer.

*Please note we are using the term "mothers" as it is the most widely recognised English terminology to describe people who have been pregnant and given birth. However, we understand that this is a gendered term, and do not wish to exclude those who do not identify with this term from this project. We are interested in capturing all views of those who are currently or have recently been pregnant and have received perinatal mental health support.

Who can take part?

1. People who are currently pregnant and were referred to an NHS perinatal mental health service for mental health support during their pregnancy
2. People who have given birth in the past three years and were referred to an NHS perinatal mental health service for mental health support during their pregnancy or during first year after giving birth.

We are interested in hearing people's experiences and thoughts about NHS perinatal mental health services during pregnancy and/or the first year after giving birth. You do not need to have attended any mental health appointment to take part in this study, but you do need to have been referred to a perinatal mental health service during your pregnancy and/or first year after giving birth.

Who cannot take part?

Unfortunately due to ethical constraints, we must ask you to not participate if you are:

1. Under the age of 18
2. Have not been referred to an NHS perinatal mental health service during pregnancy and/or first year of giving birth
3. Received perinatal mental health support outside of the UK

Do I have to take part?

Your choice to take part in this study is completely voluntary. You are free to stop the questionnaires at any time, without having to give a reason for doing so. However, as the survey is anonymous, it will not be possible to withdraw data that you have already provided/submitted because we would have no way of identifying your answers.

What will happen to me if I take part?

If you agree to participate you will be asked to complete an online survey. This should take you around 15 minutes to complete. You can complete this on any device linked to the internet. You will be asked questions about your demographics (non-identifiable information about you e.g. your age). Then you will be asked some questions about your mental health during pregnancy and/or the first year after giving birth (the perinatal period), your experience of pregnancy, and your experience of Perinatal Mental Health Services. You will not be asked to provide your name, or any other identifiable information and all your data will remain anonymous and confidential.

What will happen to the results of the research study?

The results of the study will contribute to part of a dissertation thesis and be sent to an academic journal for publication. Your involvement in this study will not be identifiable. All data collected will be written up as group averages e.g. “50% of mothers experienced X”. This research aims to inform and improve NHS Perinatal Mental Health Services in the UK. Once this study is completed, results will be posted on [website]. To keep updated with this project and its results, you can follow the [twitter page].

What are the possible risks of taking part?

Thinking about your own mental health difficulties can understandably evoke challenging emotions and distress. Although the research is not designed to cause distress, it is still possible that your participation may be distressing or challenging. If you find answering any of the questions particularly difficult, you can withdraw from completing the questionnaires at any time without providing a reason. Please also note that at the bottom of this information sheet there are a list of support services you can contact.

What are the possible benefits of taking part?

The results of the study will help improve our understanding of the experience of Perinatal Mental Health Services and it is hoped that this work will inform service development to improve Perinatal Mental Health Services, to better support mothers. There will also be an optional prize draw for participants who complete the questionnaire. There will be 5 winners, with the following prizes available: 1 x £100 voucher, 2 x £50 vouchers, and 2 x £25 vouchers. After completing the questionnaire, you will be directed to a page where it will ask you if you want to be considered for a prize draw (this is your choice). If you select yes, you will be asked to provide your email address - this will only be used to contact you if you win the prize. Your email address will be stored separately from your data and will be deleted once the prize draw winners are contacted.

What if something goes wrong?

If you wish to express concerns or complain about any aspect of this research trial, in the first instance please contact the Principal Investigator, Dr Janet Feigenbaum on j.feigenbaum@ucl.ac.uk. Please note that if you feel like your complaint has not been handled with satisfaction, you can contact the Chair of the UCL Research Ethics Committee – ethics@ucl.ac.uk

Will my taking part in this project be kept confidential?

We follow strict ethical and legal practices and all information about you will be handled in confidence. All the information that we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any ensuing reports or publications. Your anonymised data will be kept by the researchers until the research project has been completed. The maximum time this will be for is 5 years.

Data Protection Privacy Notice

The controller for this project will be University College London (UCL). The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data and can be contacted at data-protection@ucl.ac.uk. This ‘local’ privacy notice sets out the information that applies to this particular study. Further information on how UCL uses participant information can be found in our ‘general’ privacy notice: here. The information that is required to be provided to participants under data protection legislation (GDPR and DPA 2018) is provided across both the ‘local’ and ‘general’ privacy notices. If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at data-protection@ucl.ac.uk. All information will be stored in line with guidance and legislation from GDPR and DPA 2018.

Thank you very much for reading this information sheet and for considering taking part in this research study.

What next?

By clicking the arrow to 'continue', you will be presented with the consent form. If you have decided, you do not wish to participate please close this page.

YOU MAY FIND THE FOLLOWING RESOURCES/SERVICES HELPFUL IN RELATION TO OBTAINING INFORMATION AND SUPPORT:

- *The Samaritans: 116 123. A free 24/7 helpline for anybody experiencing distress.*
- *Phone Apps: You can access mental health and wellbeing apps such as Headspace, Unmind, Sleepio, Daylight and Liberate for free. If you struggle with thoughts about self-harm and suicide, the Staying Alive app is a pocket suicide prevention resource for the UK, packed full of useful information and tools to help you stay safe in crisis. You can use it if you are having thoughts of suicide or if you are concerned about someone else who may be considering suicide. It contains a safety plan for you to complete to help you stay safe and share with others so that they know best how to help you in times of crisis.*
- *Togetherall: Togetherall is a safe, online community where people support each other anonymously to improve mental health and wellbeing. Found here:* https://togetherall.com/en-gb/
- *Self-injury support: a safe, UK-wide multi-channel support service for women & girls affected by self-injury, trauma, and abuse. Found here:* https://www.selfinjurysupport.org.uk/
- *Your General Practitioner (GP) can signpost you to additional services if you experience emotional distress.*
- *Emergency 999 - call an ambulance if you are at risk and need immediate help with your mental health crisis.*
- *NHS 111 Service - call if you need non-emergency help fast but it is not a life-threatening emergency.*
- *NHS Urgent Mental Health Helplines (England only) - Many local areas in England have Urgent Mental Health Helplines that you can contact 24/7 when in crisis. To find out if your area has an Urgent Mental Health Helpline and to get the contact details click on:* https://www.nhs.uk/service-search/mental-health/find-an-urgent-mental-health-helpline

Consent form

RESEARCH DEPARTMENT OF CLINICAL, EDUCATIONAL AND HEALTH PSYCHOLOGY

Research Team Contact Details:

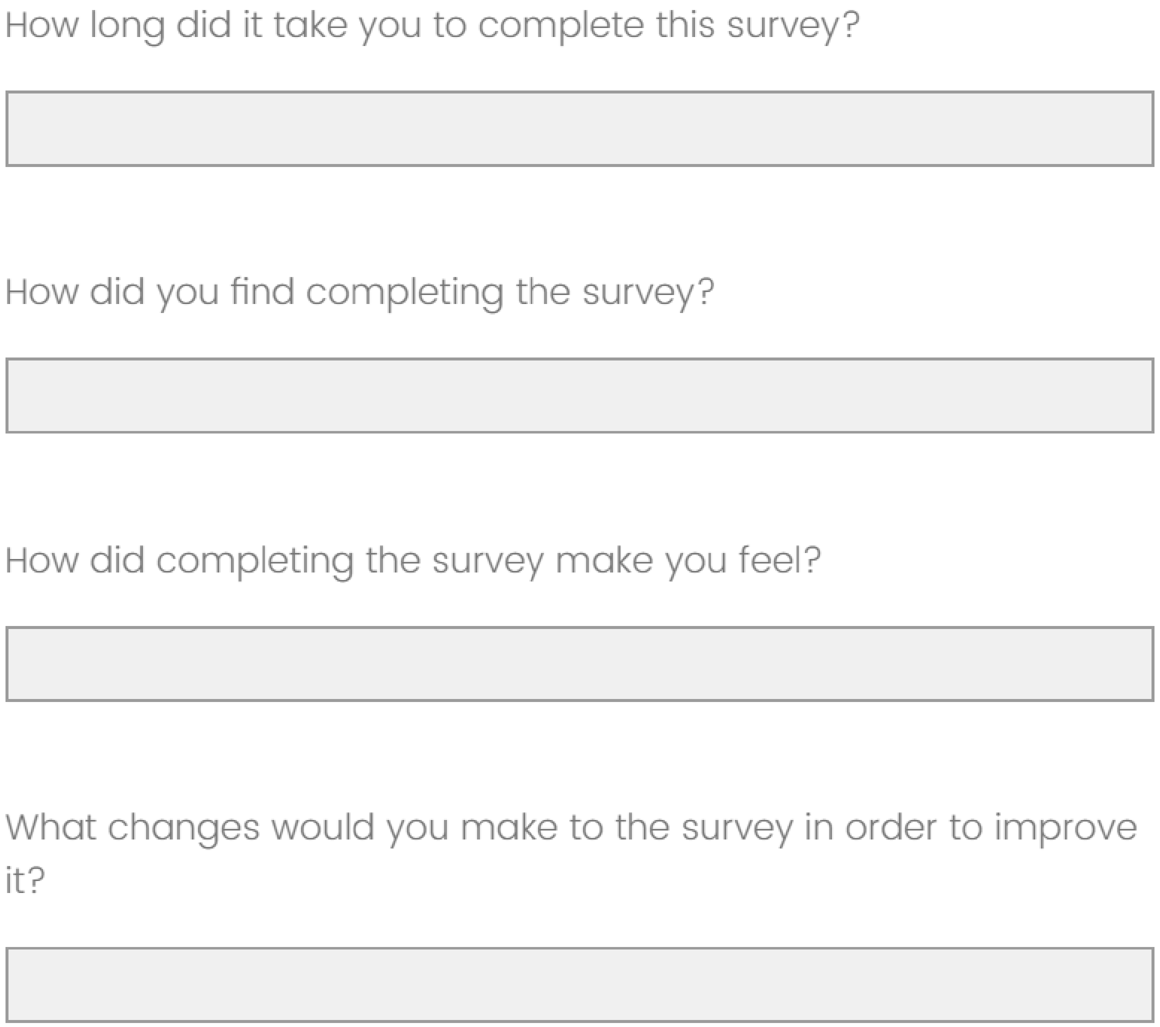
[redacted]

Study approved by UCL Research Ethics Committee. Approval ID Number: 22885/001.

Thank you for considering taking part in this research. I confirm that I understand that by ticking each box below I am consenting to this element of the study. I understand that it will be assumed that unticked/initialled boxes means that I DO NOT consent to that part of the study. I understand that by not giving consent for any one element that I may be deemed ineligible for the study.

	Please Tick
I confirm that I have read and understood the study information sheet	
I understand that my participation in this study is voluntary and that I am not obliged to give consent	
I understand that if I do not give consent to take part, there will be no consequences	
I understand that I can withdraw my participation in this survey at any time without consequences	
I understand that once I have contributed information to the survey and clicked “submit”, that information cannot be withdrawn from this study	
I understand that all contributions I make to this study will be anonymous	
I understand that the contributions I make to this study will be included in the researcher’s thesis and may be published in a scientific journal	
I agree to take part in this study	

Appendix G: Pilot feedback questions

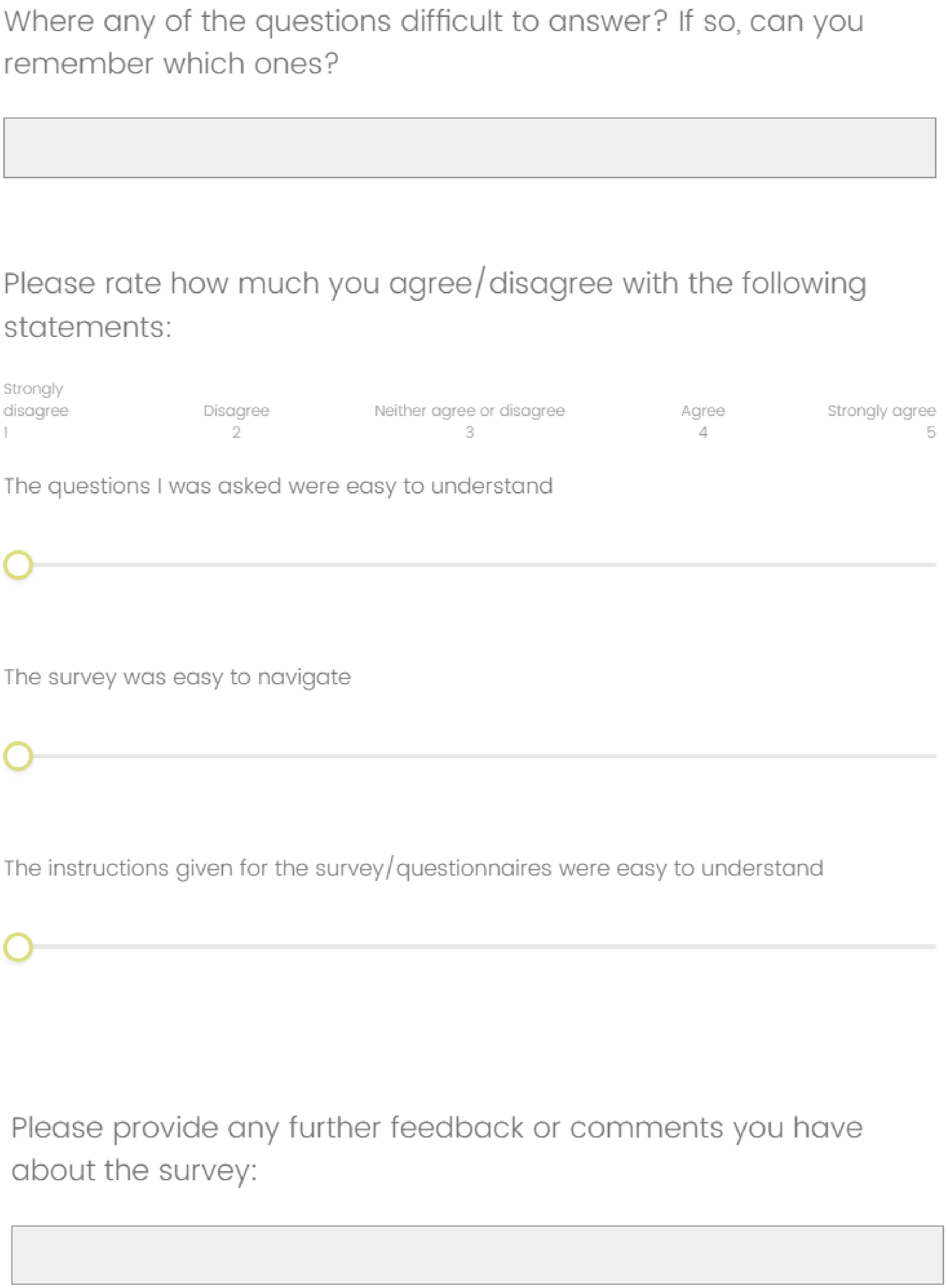


How long did it take you to complete this survey?

How did you find completing the survey?

How did completing the survey make you feel?

What changes would you make to the survey in order to improve it?



Where any of the questions difficult to answer? If so, can you remember which ones?

Please rate how much you agree/disagree with the following statements:

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

The questions I was asked were easy to understand

○

The survey was easy to navigate

○

The instructions given for the survey/questionnaires were easy to understand

○

Please provide any further feedback or comments you have about the survey:

Appendix H: Survey of questionnaires

QUESTIONNAIRE 1 – DEMOGRAPHIC FORM

Demographics form

Welcome! Below you will be asked a number of questions about yourself. All of this data will remain anonymous and confidential. However, if at any point you do not want to answer a question, please feel free to move on to the next question or click 'prefer not to say'.

What is your age?

[free text box]

What is your gender identity?

- Female
- Male
- Nonbinary/Gender fluid
- Other = [free text box]
- Prefer not to say

What country do you live in?

[free text box]

What ethnicity do you identify as?

[free text box]

How would you describe your current relationship status?

- Single
- In a relationship but living separate from partner
- In a relationship and cohabiting/living with partner
- Married
- Divorced/separated
- Prefer not to say

How would you describe your sexuality?

- Heterosexual
- Homosexual – gay/lesbian
- Bisexual
- Other sexual orientation = [free text box]
- Prefer not to say

How would you describe your employment status?

- Full time worker
- Part time worker
- Self-employed
- Unemployed
- Prefer not to say
- Student

How would you describe your highest qualification?

- No formal qualifications
- GCSEs/O-levels/BTEC Level 1 or 2/NVQ Level 1 or 2
- Apprenticeship
- A-levels/BTEC Level 3/NVQ Level 3
- University degree/ BTEC Level 4-7
- Masters degree (MA/MSc)
- Post doctorate degree
- Prefer not to say

How would you describe your accommodation status?

- Homeless
- Supported accommodation
- Temporary accommodation
- Social housing tenants (counselling housing)
- Private sector tenants (renting from private landlord)
- Homeowner
- Prefer not to say

How would you describe your yearly household income?

- Under £18,000
- £18,000-£30,000
- £30,000-£50,000
- £50,000-£70,000
- £70,000-£90,000
- £90,000+
- Prefer not to say

Are you currently pregnant?

- Yes
- No

If no, when were you last pregnant (year)?

[free text box]

How many pregnancies have you had in total?

[free text box]

What best describes your pregnancy/pregnancies?

- Single child
- Twins
- Triplets
- Quadruplets or more

How many children do you have in total (including your current pregnancy if you are pregnant)?

[free text]

In the last 3 years, have you experiences any of the following:

- Miscarriage
- Stillbirth
- Loss of a child in the first year
- Neonatal care
- Pregnancy termination
- Pregnancy termination for medical reasons/birthing person’s health reasons
- Prefer not to say

QUESTIONNIARE 2 – MATERNAL REPORT OF MENTAL HEALTH

Below are some questions about your mental health. All of this data will remain anonymous and confidential. However, if at any point you do not want to answer a question, please feel free to move on to the next question or click ‘prefer not to say’.

Have you been diagnosed with any of the following mental health difficulties in the past? (Multiple tix box)

- Depression
- Generalised Anxiety
- Postnatal depression
- Postnatal anxiety
- Personality disorder
- Post traumatic stress disorder (PTSD)
- Panic disorder
- Social anxiety
- Phobia
- Obsessive compulsive disorder (OCD)
- Anorexia
- Bulimia
- Body dysmorphia disorder
- Hoarding
- Psychosis
- Postpartum psychosis
- Schizophrenia
- Schizoaffective disorder
- Bipolar disorder
- Seasonal affective disorder (SAD)
- Alcoholism/alcohol misuse/abuse
- Substance misuse
- Other =
- No formal mental health diagnosis
- Prefer not to say

At the point of your referral to a perinatal mental health service, what difficulties were you experiencing? (Multiple tix box)

- Low mood/depression
- General anxiety/worries/fear
- Flash backs or nightmares
- Panic attacks
- Anxiety/fears about social situations/others

- Obsessional thoughts or compulsions (e.g. fear of germs and increased handwashing)
- Specific fear/phobia (e.g. heights/spiders etc)
- Interpersonal/relationship difficulties
- Mood swings
- Impulsivity
- Dissociation
- Suicidal thoughts
- Self-harm
- Hearing voices
- Seeing things that were not really there
- Low self-esteem
- Sleep difficulties
- Addiction (drugs/alcohol)
- Body image difficulties
- Disordered eating (e.g. restricting food, bingeing, or purging)
- Other =
- Prefer not to say

At the point of your referral to a perinatal mental health service, what was your main difficulty?
[text box]

QUESTIONNAIRE 3 - PERINATAL MENTAL HEALTH SERVICE INVOLVEMENT

Perinatal Mental Health Service Involvement Questionnaire

Blue questions = answered by all participants

Purple questions = answered by participants who DID attend/receive perinatal mental health support (clicked yes), participants who clicked 'no' to being referred to perinatal mental health services were not presented with the rest of the questionnaire items.

During your pregnancy and/or the first year after giving birth, were you given information about perinatal mental health (e.g. how pregnancy impacts mental health or about things such as postnatal depression/anxiety)?

- Yes, written information
- Yes, verbal information
- Yes both
- No
- Cannot remember

If yes, who gave you this information about perinatal mental health?

- Health visitor
- Midwife
- GP
- Social worker/child protection teams
- Other = [text box]
- Cannot remember

During your pregnancy and/or the first year after giving birth, did any healthcare professionals ask you questions about your own mental health/mental wellbeing?

- Yes
- No
- Cannot remember

During your pregnancy and/or the first year after giving birth, did any of the following services support you with your <u>mental health</u>? (Multiple tick box option)

- Community perinatal mental health service (*a service that provides mental health support in the community specifically during pregnancy or in the first year after giving birth)*
- Specialist health visitor (*a health visitor that is trained in providing mental health support)*
- Specialist midwife (*a midwife who is trained in providing mental health support)*
- Parent-infant team *(a team that works with parents expecting a baby and with babies up to the age of one year to think about how to develop a positive relationship)*
- Mother and baby unit (*an inpatient ward where both mothers and babies are admitted together)*

- General acute psychiatric ward (*inpatient ward for just adults*)
- Crisis resolution team/home treatment team (*a short-term treatment, ~6 weeks, to support those in mental health crisis – typically seeing people every day or multiple times a week in their home)*
- Community mental health team (*a service that provides mental health support in the community)*
- Social worker/child protection teams
- NHS talking therapies service or IAPT services (*a service that provides talking therapy and support groups)*
- Your GP
- Third sector charity (e.g. mind)
- Other - I am unsure of the service type, but the name of the service/s was [text box]
- No services supported me with my mental during pregnancy or the first year after giving birth

A perinatal mental health service is a service that provides mental health support specifically during pregnancy or in the first year after giving birth.

During your pregnancy and/or the first year after giving birth, were you referred to a perinatal mental health service?

- Yes
- No

Who referred you to a perinatal mental health service during your pregnancy and/or the first year after giving birth?

- Health visitor
- Midwife
- GP
- I self-referred
- Social worker/child protection teams
- Other = [text box]
- Cannot remember

Were you required to attend Perinatal Mental Health services due to social services involvement?

- Yes, I was required by social services to attend Perinatal Mental Health Services during my pregnancy
- Yes, I was required by social services to attend Perinatal Mental Health Services after giving birth
- Yes, I was required by social services to attend Perinatal Mental Health Services during my pregnancy and after giving birth
- No I was not required by social services to attend Perinatal Mental Health Services during my pregnancy or after giving birth

During your pregnancy and/or the first year after giving birth, did you plan to attend the perinatal mental health support you were referred for?

- Yes
- No

During your pregnancy and/or the first year after giving birth, did you attend at least one session of the perinatal mental health support you were referred for?

- Yes
- No

When thinking about the perinatal mental health support you were offered, how would you rate out of 10 your attendance?

0 = I did not attend any sessions I was offered

1 =

2 =

3 =

4 =

5 = I attended about half of the sessions I was offered

6 =

7 =

8 =

9 =

10 = I attended all of the sessions I was offered

Please tick which professionals worked with you from the perinatal mental health service.

- Psychiatrist
- Psychologist
- Mental Health Nurse
- Family therapist
- Social worker
- Occupational therapist
- Nursery nurse/worker
- Other – [text box]

Please describe what type of mental health support you were given from the perinatal mental health service

[text box]

Please think about your experience of the perinatal mental health service, and answer the following questions:

I felt that the Perinatal Mental Health Service listened to me and treated my concerns seriously

4 = At all times
3 = Most of the time
2 = Sometimes
1 = Rarely
0 = Never

I felt that the Perinatal Mental Health Service helped me to better understand and address my difficulties

4 = At all times
3 = Most of the time
2 = Sometimes
1 = Rarely
0 = Never

I felt involved in making choices about my mental health treatment and care from the Perinatal Mental Health Service

4 = At all times
3 = Most of the time
2 = Sometimes
1 = Rarely
0 = Never

On reflection, did you get the mental health help that mattered during your pregnancy and/or the first year after giving birth?

4 = At all times
3 = Most of the time
2 = Sometimes
1 = Rarely
0 = Never

Did you have confidence in the Perinatal Mental Health Service's skills/techniques used to support you with your mental health?

4 = At all times
3 = Most of the time
2 = Sometimes
1 = Rarely
0 = Never

What did you find was helpful about the support given by the perinatal mental health service?

[text box]

What did you find was unhelpful about the perinatal mental health service?

[text box]

Did any of these factors influence your decision to attend your appointments with the Perinatal Mental Health service?

	No influence	Some influence	Not applicable
Lack of time			
Cannot get time off work			
No one to look after my child(ren) while I'm attending an appointment			
No transport to appointment			
How long I had to wait for the appointment			
Inconvenience attending appointment			
Costs related to going to the appointment			
Previous unhelpful experience with mental health services			
Partner opposed to mental health treatment			
Not feeling motivated			
Concern about being judged			

Did any of these factors influence your decision to attend your appointments with the Perinatal Mental Health service?

	No influence	Some influence	Not applicable
Worried about your mental health			
Encouragement by family			
Encouraged by midwife/GP/obstetrician			
Previous good experience with mental health services			
Previously suffered from perinatal/postnatal			

mental health difficulties			
Previously suffered from other mental health issues			
An appointment time that suits me			
Wanting to discuss medications			
Wanting support/counselling			
Wanting to know what help is available			
Location of the appointment			

It is common for mothers to have worries about contacting services about their mental health while pregnant and/or during the first year after giving birth. Did you experience this?

- Yes
- No
- Unsure

If ticked yes – what worries did you have about contacting services about your mental health? What was your experience?

[text box]

How could Perinatal Mental Health services be more helpful in supporting women with their mental health during pregnancy and/or the first year after giving birth?

[text box]

Are there any changes you would like to see to Perinatal Mental Health Services?

[text box]

Is there anything else you would like to say about the mental health support you received from services during your pregnancy or the first year after giving birth?

[text box]

QUESTIONNAIRE 4 - SAPAS (STANDARDISED MEASURE)

Standardised Assessment of Personality – Abbreviated Scale (Moran)

[redacted]

QUESTIONNAIRE 5 – THE STIGMA SCALE

The Stigma Scale

5-point Likert scale: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree,

[redacted]

[redacted]

QUESTIONNAIRE 6 – CANSAS-P

No need = this area is not a serious problem for me at all

Met need = this area is not a serious problem for me because of help I am given

Unmet need = this area remains a serious problem for me despite any help I am given

No need

Met need

Unmet need

I don't want answer

[redacted]

No need = this area is not a serious problem for me at all

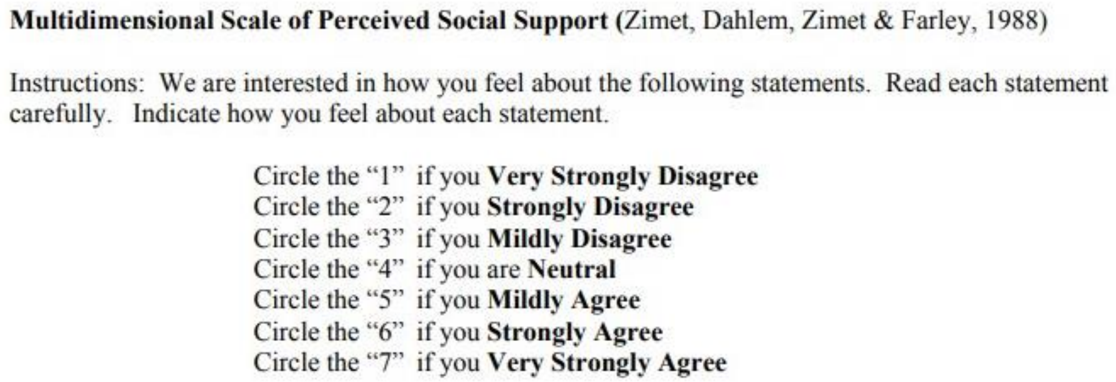
Met need = this area is not a serious problem for me because of help I am given

Unmet need = this area remains a serious problem for me despite any help I am given

	No need	*Met need*	*Unmet need*	*I don't want answer*

[redacted]

QUESTIONNIARE 7 - MSPSS (STANDARDISED MEASURE) LINK TO PDF VERSION AND SCREENSHOT OF MEASURE



Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the “1” if you **Very Strongly Disagree**
Circle the “2” if you **Strongly Disagree**
Circle the “3” if you **Mildly Disagree**
Circle the “4” if you are **Neutral**
Circle the “5” if you **Mildly Agree**
Circle the “6” if you **Strongly Agree**
Circle the “7” if you **Very Strongly Agree**

[redacted]

Appendix I: Debrief sheet

Study Title: Engagement and experiences of Perinatal Mental Health support in mothers with and without features in common with a personality disorder

Debrief sheet

Thank you for taking part in this study. This document explains why we set up the study and what we hope to achieve from the data that we collected from your kind contributions to the questionnaires.

Study rationale

Despite the perinatal period being documented as a challenging time for many mothers, very little attention in research has focused on how mothers experience Perinatal Mental Health Services and the support they offer. Further, little is known about what may influence and impact whether someone engages with a Perinatal Mental Health Service or not.

As it stands, the majority of research conducted in Perinatal Mental Health has focused on Postnatal Depression. This research project is hoping to widen this and invites all mothers who feel they have struggled with their mental health during the perinatal period. Specifically, this project aims to explore how mothers who have difficulties in common with personality disorder (including strong emotions, difficult relationships, and/or challenges in self-identity) may experience Perinatal Mental Health Services, compared to mothers who do not. This is because little research has been conducted into how best to support these mothers. Clinical experience suggests that individuals who experience strong emotions and difficulties in relationships often experience social stigma and rejection. This fear of stigma and/or fear of rejection may lead to a withdrawal from mental health services. Some people manage their strong emotions and painful thoughts through self-harm, suicide attempts, alcohol, drugs, or violence. These behaviours are of great concern to the individuals themselves, to their friends and families, and to mental health and social care professionals. Some mothers become fearful of talking to mental health professionals as they fear that this may lead to the child being taken from them, or that they will be criticised. This project was designed to identify how widespread these concerns and issues are, and to find out how we can suggest that professionals and services can provide supportive services that help and reassure those in need that the aim of perinatal services is to support mothers (and their partners). We are also aware that a number of other factors may prevent mothers from engaging with mental health services, including practical needs, stigma, and the type of support from friends and family. Thus the study asked about both the mental health of the individual and about these other factors. By asking a large number of people we hope that we can make suggestions to perinatal services which will apply to a wide range of individuals.

Once this study is completed, results will be posted on [website]. To keep updated with this project and its results, you can follow the twitter handle [twitter].

What if you have been adversely affected by taking part?

Thinking about your own mental health difficulties can understandably evoke challenging emotions and distress. Although the research is not designed to cause distress, it is still possible that your participation may be distressing or challenging.

If you have been affected in anyway, you may find the following resources/services helpful in relation to obtaining information and support:

- **The Samaritans:** 116 123. A free 24/7 helpline for anybody experiencing distress.
- **Phone Apps:** You can access mental health and wellbeing apps such as Headspace, Unmind, Sleepio, Daylight and Liberate for free. If you struggle with thoughts about self-harm and suicide, the Staying Alive app is a pocket suicide prevention resource for the UK, packed full of useful information and tools to help you stay safe in crisis. You can use it if you are having thoughts of suicide or if you are concerned about someone else who may be considering suicide. It contains a safety plan for you to complete to help you stay safe and share with others so that they know best how to help you in times of crisis.
- **Togetherall:** Togetherall is a safe, online community where people support each other anonymously to improve mental health and wellbeing. Found here: https://togetherall.com/en-gb/
- **Your General Practitioner (GP)** can signpost you to additional services if you experience emotional distress.
- **Emergency 999** - call an ambulance if you are at risk and need immediate help with your mental health crisis.
- **NHS 111 Service** - call if you need non-emergency help fast but it is not a life-threatening emergency.
- **NHS Urgent Mental Health Helplines** (England only) - Many local areas in England have Urgent Mental Health Helplines that you can contact 24/7 when in crisis. To find out if your area has an Urgent Mental Health Helpline and to get the contact details click on: https://www.nhs.uk/service-search/mental-health/find-an-urgent-mental-health-helpline

Contact details

If you would like further information or have any questions or concerns regarding this study, please feel free to contact the researcher:

Please contact for further information:

Principle Investigator	**Primary Researcher**
Dr Janet Feigenbaum	Eleanor Bennett

[redacted]

Appendix J: Example excerpt of thematic analysis

Extract	Codes	Subtheme	Theme
It was an exceptional service. They were quick to see me, and we’re kind and compassionate and knowledgeable. I felt respected and my experience normalised in the context of how poorly I’d been. I didn’t want to feel labelled with a diagnosis. The compassionate mind approach was just what I needed in pregnancy. It was a safety net knowing the service was there if my mood dropped after giving birth- I was fine once I could eat. They were flexible and if I was too unwell or in hospital, we could move appointments.	Positive service experience X Quick X Cared for me/kind/on my side X Specialist X Cared for me/kind/on my side X Validation/normalised X Choice/autonomy/a voice X Specialist X Support I needed X Safety net X Flexible/adaptable/support when I needed it X	Specialist and holistic care Adaptable and prompt service delivery My “lifeline”: having time to hear me Giving me a voice: advocacy and autonomy in treatment	"The perinatal mental health team saved my life": The support I needed
There was no judgement. I never worried about being judged as being a bad mum-to-be, and all of my concerns and worries were always validated. I was reassured that the problem wasn’t me, as such, it was that there was a chemical imbalance that needed to be sorted. I resisted antidepressants for 7 weeks (this was when I was pregnant) but eventually took a	No judgement X Cared for me/kind/on my side X Validation/normalised X Clarity of perspective/change/hope X Not my fault/reduce blame X	“It’s not my fault”: providing clarity and hope in difficult moments Processing distress and new skills learnt	Growth and transformative experiences: what treatment from PMHS enabled

Extract	Codes	Subtheme	Theme
low dose of sertraline which made an absolutely massive difference. I went from being unable to leave the house to being able to go back to work.	Improvement following treatment X Treatment enabled change X	Specialist and holistic care Adaptable and prompt service delivery My "lifeline": having time to hear me Giving me a voice: advocacy and autonomy in treatment	"The perinatal mental health team saved my life": The support I needed
They helped me to feel like I wasn't alone. They helped me to talk through options, they listened to me. They made me feel at ease and helped me rationalise some of the intrusive thoughts I was having.	Cared for me/kind/on my side X Choice/autonomy/a voice X Listened to me/heard me X Process of talking X Clarity of perspective/change/hope X		
It was very quick between referral and first contact, and the Dr really listened to my concerns and asked me about my whole life to really understand me as a whole and not just how I was after having a baby and acknowledging previous traumas I have experienced. I felt more normal after speaking with the dr as she explained that this is very common and then I didn't feel so alone.	Quick X Listened to me/heard me X Holistic care/new mum/context X Trauma-informed care X Process of talking X Validation/normalised X Cared for me/kind/on my side X	"It's not my fault": providing clarity and hope in difficult moments Processing distress and new skills learnt	Growth and transformative experiences: what treatment from PMHS enabled

Note. The colour of the quote's font matches the colour of the code assigned to that quote. The highlighted coloured X matches each code to the theme it was collated and sorted into (e.g., codes with X next to them were collated into theme 1.3. my "lifeline")

Appendix K: Researcher’s statement of reflexivity: mixed methods empirical study

The author (EB) is a White British woman in her 20s, who is neither a parent nor has any psychiatric diagnoses. The author therefore acknowledged her comprehension of perinatal mental illness and experiences of PMHS are limited on a personal level, and rather were informed by her clinical experience as a trainee clinical psychologist. In the design phase of the project, the author had clinical experience of working within a PD service but no experience of working within a PMHS. By the time of analysis however, the author had worked 6 months within a parent and infant psychology service. The author spent time reflecting upon the shift in her experience and her own views/preconceptions of how mothers with and without PD experience PMHS. For example, the author reflected on her beliefs (based on clinical experience) that clients with interpersonal difficulties can have difficult relationships to help. The author also noted concerns she held surrounding current provisions of PMHS e.g., over reliance on the medical model, limited offer of psychology. To reduce the impact of potential bias on the qualitative analysis, the author noted during analysis when data overlapped or diverged from her experiences and preconceptions. This ensured coding was applied consistently while enabling her to be mindful of themes which she may be drawn to/find salient due to her own experience), and those which may resonate less. The author was hopeful that this would allow a more accurate framework of themes to be created.

Appendix L: Table of data detailing the involvement from mental health services during the perinatal period

Table: Mental health support during perinatal period for the whole sample and split by high and low SAPAS groups

Mental health support		**Whole Sample (*n* = 513)**	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Significant difference**		
					Test statistic (df)	***p*-value**	**Effect size (*V*)**
Given information on perinatal mental health	Yes written information	7%				> .05	
	Yes verbal information	31.8%					
	Yes both (written and verbal)	34.7%					
	No information						
	Cannot remember	18.7%					
		7.8%					
Professionals that provided information on perinatal mental health	Health Visitor	17%				> .05	
	Midwife	60.2%					
	GP	13%					
	Social Worker	0.8%					
	Mental Health Team/Therapist	5.3%					
	Antenatal Class						
	Self-help/researched	0.8%					
	Cannot remember	0.8%					
		2.1%					
Questioned about perinatal mental health	Yes	93%				> .05	
	No	5.7%					
	Cannot remember	1.4%					
Support services accessed for perinatal mental health difficulties	PMHS	100%				> .05	
	Specialist Health Visitor	15.6%				> .05	
	Specialist Midwife	26.7%				> .05	
	Parent-Infant Team	8.2%				> .05	
	Mother and Baby Unit	3.9%				> .05	
	General Acute Psychiatric Ward	0.6%				> .05	
	Crisis resolution team	7.2%	4.5%	9.8%	$\chi^2(1, N = 513) = 1.04$	.020**a**	.05
	CMHT	12.5%				> .05	
	Social Worker	3.3%	1.6%	4.9%	$\chi^2(1, N = 513) = 4.27$	.039**a**	.09
	IAPT	37.6%				> .05	
	GP	38.8%				> .05	
	Third Sector/Charity	12.3%				> .05	

Mental health support	**Whole Sample (*n* = 513)**	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Significant difference**
Number of services accessed for perinatal mental health difficulties	2.4 (SD = 2.3, range: 1-9)			> .05

Note. ‘*’ denotes a clinically significant result; ‘a’ denotes a result that is no longer significant following Bonferroni corrections for multiple testing.

Appendix M: Table of data detailing the involvement from PMHS during the perinatal period

Table: Support provided by Perinatal Mental Health Service (PMHS) for the whole sample and split by high and low SAPAS groups

Support from PMHS		**Whole Sample (*n* = 513)**	**Low SAPAS (*n* = 247)**	**High SAPAS (*n* = 266)**	**Test Statistic (df)**	***p*-value**	**Effect size (*V*)**
Referrer to PMHS	Health Visitor	14.6%				> .05	
	Midwife	43.3%					
	GP	24%					
	Self-referred	9.8%					
	Social worker	1.2%					
	Neonatal Team	1.2%					
	Other MH Team	3.5%					
	Third Sector/Charity	0.4%					
	Cannot remember	1.2%					
Mandatory attendance to PMHS	Yes	7.9%	2.5%	13%	χ2(1, *N* = 513) = 14.46	**< .001***	.17
	No	92.1%	97.5%	87%			
Support provided by PMHS	Talking therapy	45.6%				> .05	
	Case management and medication	30.6%				> .05	
	Assessment only	6.4%				> .05	
	Birth planning	3.5%				> .05	
	Psychoeducation	8.6%				> .05	
	Signposting	2.9%				> .05	
	Admitted to inpatient	1.2%				> .05	
	Group therapy	6.4%				> .05	
Professionals supported by in PMHS	Psychiatrist	28.3%				> .05	
	Psychological therapist	38.4%				> .05	
	Mental Health Nurse	40.2%				> .05	
	Social Worker	4.3%	1.2%	7.1%	χ^2(1, N=513) = 10.97	***< .001****	.15
	Occupational Therapist	7.6%				> .05	
	Nursery nurse worker	12.7%				> .05	
	Peer support	1.6%				> .05	

Note. ‘*’ denotes a clinically significant result; ‘**a**’ denotes a result that is no longer significant following Bonferroni corrections for multiple testing; MH: mental health.