

Improving Access to Cognitive Behavioural Therapy Groups for Postnatal Women following Partnership Work: A Service Evaluation

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Abstract

Objective: Postnatal depression (PND) can adversely impact the wellbeing of the mother and child. However, accessing mental health support is a challenge for the perinatal population. While most studies have focused on the effectiveness of stand-alone interventions in treating PND, recent studies have highlighted the need for collaboration and inter-agency working. This study evaluated the impact of partnership working on the effectiveness of cognitive behavioural therapy (CBT) groups for women with PND and anxiety in an Improving Access to Psychological Therapies (IAPT) service.

Method: This study is a service evaluation conducted within a primary care setting. It compares engagement and outcomes from pre-partnership groups that were delivered before the development of local partnership working arrangements with post-partnership groups developed in collaboration with a secondary care perinatal mental health service (PNMHS). Participants attended either pre-partnership (N=26) or post-partnership (N=19) CBT groups.

Results: Following developments in partnership working arrangements, the diversity and number of referrals to CBT groups significantly increased, with a 50% increase in self-referrals. Retention from referral to start of treatment was high, with an increase to 100% following partnership working arrangements (88.5% vs. 100%). Completion rates were also higher following partnership working arrangements (84.2% vs. 61.5%). However, these differences and differences in recovery outcomes did not reach statistical significance.

Discussion: Overall this study has found promising results for the effectiveness of partnership working on perinatal care, particularly when improving access to mental health services for women with PND and anxiety.

Keywords: Post-natal, CBT, IAPT, Groups, Partnership, Collaboration

Introduction

PND is the most common mental health complication of childbirth in the world, affecting 15-20% of new mothers in the UK (National Institute for Health and Care Excellence, NICE, 2014), up to 50% of women across the African continent (Stellenberg & Abrahams, 2015), and up to 57% of women in South Asia (Prabhu et al., 2019). If untreated, PND can adversely affect the psychological and physiological wellbeing of the mother and child (Halbreich, 2005); therefore it is crucial that accessible, timely and effective psychological treatments are available to mothers experiencing PND.

Existing literature has shown CBT to have a greater and more robust treatment effect compared to other therapeutic approaches (Milgrom et al., 2011; Van Ravesteyn, Lambregtse-van den Berg, Hoogendijk, & Kamperman, 2017, Austin et al., 2008). This effect has been replicated across cultures (Leung et al., 2013, Masood et al., 2015) and socio-economic status (Rahman et al., 2013). However, whilst there is parity in the effectiveness of CBT across cultures, there is not parity in the utilisation of mental health services (Edge, 2010; Edge & MacKian, 2010). For example, Black Caribbean women are less likely to seek support for PND compared to their White British counterparts (Edge, Baker, & Rogers, 2004).

Nevertheless, access to mental health services overall for perinatal women is problematic. Numerous studies report high incidences of treatment non-completion (e.g. 52%, Austin et al., 2008; 40%, Meager & Milgrom, 1996). As a result, researchers anticipate and adjust for treatment non-completion in their studies by adopting the intent-treat-analysis method (Fisher et al., 1990) or unequal randomisation ratio (e.g. 2:1) to counter the higher drop-out expected from treatment conditions compared to control. Despite these adjustments, accessibility remains an issue.

In the last 10 years, government-led initiatives (e.g. *Healthy Child Programme*, Department of Health, and Department for Children, Schools and Families, 2009) and NICE (2014) raised awareness about specific challenges faced by perinatal women in accessing mental health services and established guidelines for health and psychological services. These include partnership working between healthcare professionals (e.g. increasing communication), adopting flexible practices (e.g. longer sessions) and reduced stigmatisation (e.g. appointments

in community-based locations). Similar suggestions are found within research literature (Melville et al., 2014; Byatt, Levin, Ziedonis, & Allison, 2015; Myors et al., 2015; Palmer et al., 2012). Myors, Schied, Johnson, and Cleary (2013) highlighted several elements required in providing effective perinatal care, including: shared aims, development of referral pathways, building relationships, clarity of roles and training and education for clinicians. Many of these require partnership working amongst healthcare professionals.

Despite these recommendations, there is a dearth of studies evaluating their effectiveness in improving the accessibility and effectiveness of treatments offered to perinatal women. Thus far, one study (Milgrom et al., 2011) has looked at the effectiveness of partnership work (GP management with CBT vs. GP management) on improving PND symptoms in women and demonstrated it to be successful in this.

Background

At the start of this project, West London NHS Trust IAPT service ran low-intensity CBT groups at children's centres across the London Borough of Hounslow, west London. Concordant with the stepped-care approach outlined by NICE (2011), this consisted of psycho-education and guided self-help techniques such as behavioural activation (Jacobson et al., 1996). A weekly antenatal clinic was also established within the maternity unit at West Middlesex Hospital, where a Psychological Wellbeing Practitioner and CBT Therapist held assessments for perinatal women. However, there was no clear referral pathway and a lack of communication between the antenatal team and IAPT service. There were also difficulties in recruiting women and in preventing attrition, leading to cancelled groups. These groups also yielded lower recovery rates in comparison to other CBT groups offered by the IAPT service.

For this reason, specific actions were taken to work in partnership with the local PNMHS which launched in March 2016. Actions resulting from this partnership included:

- A referral pathway was developed in July 2016 between the antenatal clinic and IAPT.
- The content of the groups was reviewed and updated by an IAPT CBT Therapist and a PNMHS Clinical Psychologist. The groups were co-facilitated by these clinicians.

- Communication to Health Visitors (HVs) and midwives via email about upcoming groups was introduced in October 2016.
- Posters promoting the groups were put up at GP practices, children's centres, health centres and antenatal clinics.
- Group information leaflets were included in packs given to postnatal women by HVs from May 2017.
- Training about IAPT and common mental health difficulties was delivered to HVs by an IAPT CBT Therapist and PNMHS Consultant Psychiatrist in January 2017.

Subsequently, we studied the impact of these partnership working arrangements on the accessibility of CBT groups for women experiencing PND and anxiety. The additional research questions of this study were: Does partnership work impact the effectiveness of CBT? Are there any differences in accessibility between ethnic groups?

Method

Procedures

This study was conducted retrospectively, examining quantitative data that was already collected and stored on a secure patient database, IAPTus (Mayden, Wiltshire, UK). All data were anonymised and stripped of any identifiable information before analysis.

Prior to the partnership working arrangements, 7 CBT groups were delivered between July 2014 and February 2016. The group aims were: to understand the maintenance of difficulties through the relationship between thoughts, feelings and behaviours utilising the CBT model; and develop techniques to cope with depression and anxiety tailored to the postnatal period. These groups followed a didactic format of 6 weekly sessions, each lasting 1.5 hours. The sessions focused on psychoeducation and guided self-help techniques and were facilitated by Psychological Wellbeing Practitioners.

As part of the partnership working arrangements, the group was redesigned with input from the PNMHS Clinical Psychologist and was co-delivered by the PNMHS Clinical Psychologist, and a CBT Therapist and Psychological Wellbeing Practitioner from the IAPT Service. Changes in the content and delivery of these groups were a direct result of the PNMHS sharing their expertise with IAPT, leading to a more perinatal-specific intervention.

CBT groups following the partnership working arrangements were delivered between October 2016 and June 2017. The groups consisted of 9 weekly sessions that lasted 2 hours, focusing on: socialising women to the CBT model; the impact of participants' experiences of being parented and how this can impact their attachment with their baby; expectations they held about themselves as a parent and of pregnancy; developing techniques to cope with depression, anxiety and low self-esteem. These sessions were interactive with space to explore the development of their problem (e.g. schemas and systemic influences) and how this could lead to unhelpful attitudes towards motherhood. This was based on Milgrom, Martin and Negri (1999), drawing on attachment theory and third wave techniques such as mindfulness and compassionate mind techniques. The revised group content reflected the features of a high-intensity intervention as outlined by NICE (2011). In accordance with the IAPT Perinatal Positive Practice Guide's (2013) recommendations, courses were based in children's centres and women were able to bring their babies to sessions. Although the frequency of groups ran before and after partnership working differed slightly, neither format had upper capacity limits.

Participants

Postnatal women accessed the service through different routes, including General Practitioners, maternity and health visiting services, non-statutory organisations, secondary care mental health services and the PNMHS; alternatively, some women self-referred. Women assessed as suitable for IAPT intervention were invited to the groups based on whether they: 1) were experiencing symptoms of anxiety/depression that were deemed to be suitable for treatment within primary care; 2) were 18 years or above; 3) had a GP within Hounslow Borough; and 4) had a baby aged 1 year or under. Women presenting with post-traumatic stress disorder or severe and enduring mental problems were not invited to attend.

Out of the women referred (N=45), 26 were referred at the time pre-partnership groups were run (July 2014 - February 2016) and 19 at the time post-partnership groups were run (October 2016 – June 2017). The timing of referral into the service determined which groups they accessed.

32 women completed treatment (71%), defined as having attended 50% of the group sessions.

Measures

Upon entering the service, women completed either a face-to-face or telephone assessment with a Psychological Wellbeing Practitioner or CBT Therapist. The assessments included a semi-structured discussion of their main problem and goals for treatment. Suitability for group-based intervention was also assessed.

At every appointment, the 9-item Patient Health Questionnaire (PHQ-9, Spitzer, Kroenke, & Williams, 1999) and 7-item Generalised Anxiety Disorder Assessment (GAD-7, Spitzer, Kroenke, Williams, & Lowe, 2006) were administered. These measures have shown to be valid and reliable tools in measuring symptom change in depression and anxiety (Kroenke, Spitzer, & Williams, 2001; Löwe et al., 2008; Plummer, Manea, Trepel, & McMillan, 2016; Gilbody, Richards, Brealey & Hewitt, 2007). The PHQ-9 has found to be most concordant with the Edinburgh Postnatal Depression Scale (EPDS, Yawn et al., 2009), while the GAD-7 captured anxiety symptoms which previous studies often neglected.

Ratings were obtained on how often in the last two weeks women experienced each item from, (0) not at all, (1) several days, (2) more than half the days and (3) nearly every day. Total scores were taken from each measure

and individual cut-off points (10 and above on PHQ-9, 7 and above on GAD-7) indicated whether the client was experiencing symptoms consistent with depression and/or anxiety. 'Reliable improvement' was identified when scores reduced by 6 or more on the PHQ-9 or 4 or more on the GAD-7, which was determined using Jacobson and Truax's (1991) reliable change formula. 'Recovery' was considered in cases when one or both scores on the measures started above the threshold and both ended below (Department of Health, 2011).

Statistical Analysis

For categorical data, Chi-squared analyses were used. For ordinal data, independent samples t-tests were used. The assumptions such as homogeneity of variances ($p > 0.05$) and equal sample sizes (i.e. within the 1.5 ratio) were all met. The Shapiro Wilk tests (Shapiro & Wilk, 1965; Shapiro, Wilk, & Chen, 1968) were used to test for normality as our sample size was below 50.

Results

Analysis of accessibility

Following partnership working arrangements (March 2016 – June 2017), more women were referred to CBT groups ($M=10$, $SD=1.8$) compared to before partnership working arrangements (July 2014 – February 2016; $M=5$, $SD= 0.7$). This shows an 82.7% increase in women referred to each group following partnership working arrangements ($t(5) = -3.15$, $p=0.025$). Referral rates are shown in Table I.

Additionally, the diversity of referral sources to groups increased following partnership working arrangements. Women referred before the partnership working arrangements were mostly referred by their GP (50%), followed by the antenatal clinic (19%), self-referral (15%), HVs (12%) and secondary care mental health services (4%). However, after partnership working arrangements, there was a more even spread of referral sources, with increased referrals from HVs (37%) and self-referrals (32%). The number of self-referrals to the CBT groups also doubled (50%) after partnership working arrangements.

Table I: rates of referral, attendance (1 or more session) and completion

Variable	Pre-partnership (N =26)	Post-partnership (N = 19)	Total (N =45)	p-value
<i>Mean (Standard Deviation)</i>				
Participants per group	5.2 (1.8)	9.5 (0.7)	6.0 (2.6)	= 0.025
<i>Percentage %</i>				
Attended treatment	88.5 (2.4)	10.0 (0)	6.7 (2.4)	
Completed treatment	61.5 (1.9)	84.2 (1.4)	71.1	= 0.097
Attrition after attending ≥1 group session	38.5 (2.4)	15.8 (2.1)	28.9	= 0.183

Analyses of retention/attrition

The attendance from referral, completion and drop-out rates are shown in Table I.

Following partnership working arrangements attendance rates increased from 88.5% to 100% ($\chi^2 (1), p =.183$).

Those that went on to complete CBT groups also increased from 61.5% to 84.2% following partnership working arrangements ($\chi^2 (1), p=.592$).

There were some observable differences in access for specific ethnic groups before and after partnership working arrangements (e.g. White, 57.14% vs. 28.57%; Asian, 100% vs. 57.14%; Asian Other, 100% vs. 0%). These differences, however, were not statistically significant ($\chi^2 (1), p=.236$; $\chi^2 (1), p=.296$; $\chi^2 (1), p=.333$).

Table II: rates of reliable improvement, recovery and reliable recovery on the PHQ-9 and GAD-7

Variable	Pre-partnership (RI N =23) (R/RR N = 19)	Post-partnership (RI N =19) (R/RR N = 17)	Total (RI N = 42) (R/RR N = 36)	p-value
<i>Percentage %</i>				
<i>(Standard Deviation)</i>				
Reliable Improvement (RI)	43.5 (1.0)	47.4 (2.1)	45.2 (1.7)	
Recovery (R)	42.1 (1.4)	41.2 (0.7)	41.7 (1.4)	= .670
Reliable Recovery (RR)	10.5 (0.0)	23.5 (0.0)	16.7 (0.6)	= .377

Analyses of effectiveness

The proportion of women who reliably improved on the PHQ-9 and GAD-7 measures was similar before and after partnership (43.5% vs. 47.4%). This was a similar finding for the proportion of women who recovered ($\chi^2(1), p=.670$) and reliably recovered ($\chi^2(1), p=.377$). These results are shown in Table II.

Baseline Severity

We observed that women attending groups after partnership working arrangements reported more severe scores at assessment compared to those who attended groups before the partnership working arrangements (PHQ-9, 47.4% vs. 42.3%; GAD-7, 31.6% vs. 19.2%). See Table III for further details.

Table III: participants' characteristics at pre-treatment (n=45)

Variable	Pre-partnership (N =26)	Post-partnership (N = 19)	Total (N = 45)
<i>Mean (Standard Deviation)</i>			
Age	33.4 (4.8)	32.8 (6.7)	33.2 (5.6)
<i>Percentage (%)</i>			
Ethnicity			
White British	26.9 (1.0)	36.8 (2.1)	31.1 (1.5)
White Other	26.9 (1.0)	26.3(2.1)	26.7 (1.3)
Asian/Asian British (Indian/Pakistani/Bangladeshi)	26.9 (0.6)	21.1(1.4)	24.4 (0.8)
Asian Other	3.8	10.5	6.7 (0.7)
Black/Black British (African/Caribbean)	11.5(0.0)	5.3	8.9 (0.0)
Mixed	3.8	0.0	2.2
Referral Source			
GP	50.0 (0.9)	10.5 (0.0)	33.3 (1.1)
Health Visitor	11.5 (0.0)	36.8 (2.1)	22.2 (1.7)
Antenatal clinic/midwife	19.2 (0.5)	15.8	17.8
Non statutory Organisations	0.0	0.0	0.0
Perinatal Mental Health Service	0.0	5.3	2.2

Secondary Care Mental Health	1.0	0.0	2.2
Self	4.0 (1.4)	31.6 (1.4)	22.2 (1.3)
Severity of first PHQ-9 Scores			
Mild	11.5 (0.7)	2.1 (1.4)	16.3 (1.0)
Moderate	38.5 (1.0)	31.6 (0.0)	37.2 (0.8)
Moderately-Severe/Severe	42.3 (1.7)	47.4 (0.7)	46.5 (1.6)
Severity of first GAD-7 Scores			
Mild	58.3 (0.8)	40.0 (2.8)	50.0 (1.5)
Moderate	29.2 (0.6)	30.0 (0.0)	29.5 (0.9)
Moderately-Severe/Severe	12.5 (0.7)	30.0 (1.4)	20.5 (1.3)

Post-hoc Analyses

As we found some non-significant results, post-hoc analyses using an online sample size estimation calculator (Kane, 2018) were conducted to see if the results were due to lack of statistical power. Tests revealed samples sizes were required to increase to N=118 for completion rates and attrition after first session rates (59 in each group) and to N=260 for reliable recovery (130 in each group) in order to achieve 80% power at two-sided significance.

Discussion

The study aimed to assess the impact of partnership working on the accessibility and effectiveness of CBT groups for women experiencing PND and anxiety in clinical practice. We were also interested to see if accessibility differed across ethnic groups in this setting, as demonstrated by existing literature.

Our results showed that partnership working arrangements between the IAPT service and the PNMHS increased accessibility to CBT groups for postnatal women. Specific partnership working arrangements that may have facilitated access include: developing an integrated pathway from the antenatal clinic to IAPT, increasing public and health-care professionals' awareness about upcoming groups through posters and emails, and providing training to HVs. The most notable finding of this study was the increase in self-referrals following partnership working arrangements, suggesting women were better able to access support through their own volition, overcoming barriers faced when accessing care through healthcare professionals. These findings are similar to that of Byatt, Levin, Ziedonis and Allison (2015), where strategies to overcome barriers in accessing support (e.g. provider training, on-site assessments) were associated with higher rates of engagement with PNMHSs. Overall, results build on the idea that collaborative working is important in delivering effective perinatal care, supporting recommendations made by Myors, Schied, Johnson and Cleary (2013) and Melville et al. (2014).

Following partnership working arrangements, attendance rates increased to 100%. This may be a result of the increase in self-referrals, as those that self-referred may have been more motivated to engage. Completion rates were also greater following partnership working arrangements. It is likely that the modifications made to the group content resulted in lower attrition rates as the groups were more specific to the perinatal period. Interestingly, completion rates were substantially higher than those cited elsewhere in literature (e.g. 48%, Austin et al., 2008), reflecting the steps taken before and after the partnership with the PNMHS to promote engagement (e.g. groups held at children's centres).

The proportion of women who showed a reliable reduction in scores and/or moved into 'recovery' on the measures for depression and anxiety was similar before and after partnership working arrangements, suggesting that the effectiveness of CBT groups was maintained. However, 'recovery' must be interpreted with caution as the severity of baseline scores may have impacted the proportion of women seen to have 'recovered'. The

greater severity of scores experienced by women following partnership working arrangements meant they were required to make greater reductions in their symptoms to move into 'recovery' on the GAD-7 and PHQ-9 measures. This is consistent with Milgrom et al's (2011) study comparing women who received GP management with those that received GP management with counselling-CBT.

Limitations

This study has several limitations. The small sample size used decreased generalisability of the results and increased type II error which may explain some of our non-significant findings. This study was also not set up as a research study which meant many factors were uncontrolled for, such as recruitment strategies used by therapists at assessment. Although a causal relationship cannot be inferred, the patterns within the dataset provide some insight into the possible effects of collaborative working on perinatal care.

Furthermore, the measures used have come under scrutiny for lacking specificity in assessing depression and anxiety within the perinatal period (Hewitt et al., 2009). For example, the PHQ-9 includes items (e.g. sleep patterns, tiredness) which are synonymous with perinatal experiences (e.g. poor sleep) and not necessarily clinical depression or anxiety (American College of Obstetricians and Gynaecologists, 2015). Considering this, recovery findings within this study may not validly reflect symptom reduction within the perinatal population.

This is an important consideration as poor measures could result in poor symptom recognition and implications on the wellbeing of the mother and child (Gentile, 2017; Gentile & Fusco, 2017). The EPDS has shown superiority in assessing PND and anxiety (American College of Obstetricians and Gynaecologists, 2015) which might be valuable in future research. Using a combination of different qualitative and quantitative measures may also better capture the somatic and anxiety symptoms associated with the perinatal period (Zhong et al, 2014; Zhao et al, 2015). Whilst this study looked at the impact of partnership working arrangements within an uncontrolled clinical setting, it would be interesting to see if these findings are replicated within a randomised controlled trial and using a larger sample. It is also imperative that further investigation is done on how we can improve access for specific ethnic groups.

Conclusion

This study demonstrated the value of partnership working in improving access to mental health support for women experiencing PND and anxiety. This study supports recommendations made for collaboration in the Perinatal Positive Practice Guide (Department of Health, 2013). This may have led to the reduced attrition rates seen and supports the argument for the delivery of perinatal-specific interventions in routine clinical practice (Department of Health, 2013).

The increase in the range of referral sources following partnership working arrangements suggests that these changes facilitate access to psychological therapies in this population and should be considered in practice, in line with recommendations made in the Perinatal Positive Practice Guide (Department of Health, 2013).

Recovery rates, however, did not improve nor deteriorate following partnership working arrangements. This suggests that further research needs to be conducted to address what can increase the effectiveness of CBT treatment for perinatal women experiencing depression and anxiety and what measures might be best to capture this.

Compliance with Ethical Standards

Disclosure of Potential Conflicts of Interest

All authors confirm that:

- the work is original
- the work has not been published before
- the work is not under consideration elsewhere
- copyright has not been breached in seeking its publication
- the publication has been approved by all co-authors and responsible authorities at the institute or organization where the work has been carried out
- they have no conflict of interest

Research involving human participants and/or animals

All authors confirm that all procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee (British Psychological Society Code of Human Research Ethics, 2014) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors

Informed consent

All authors confirm that anonymity and confidentiality of participants was ensured in this study. All personal identification information extracted from a secure clinical database IAPTus (Mayden Wiltshire, UK) has been removed or changed during analysis. Digital copies of data files have been stored on NHS property devices with password protection and stored securely. Digital files are only accessible by researchers and the NHS Hounslow IAPT staff.

Declarations

The datasets used and/or analysed during the currently study are either included in this published article or are available from the corresponding author on reasonable request.

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