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Mindfulness during the Perinatal Period

by

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BSc (Hons) PgDip MSc

**A thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Clinical Psychology**

Coventry University, Faculty of Health and Life Sciences

&

University of Warwick, Department of Psychology

May 2015

Total word count: 17,883

(excluding footnotes, quotations, tables and references)

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List of Abbreviations and symbols

Abbreviation / Symbol	Definition
ACT	Acceptance Commitment Therapy
CBT	Cognitive Behavioural Therapy
<i>d</i>	Cohen's <i>d</i> effect size
DBT	Dialectical Behaviour Therapy
IPA	Interpretative Phenomenological Analysis
MABI	Mindfulness and Acceptance Based Intervention
MBCP	Mindfulness Based Childbirth and Parenting
MBCT	Mindfulness Based Cognitive Therapy
MBSR	Mindfulness Based Stress Reduction
NHS	National Health Service

Acknowledgements

My deepest thanks goes to all of the parents who took time out of their lives to share their personal experiences of mindfulness during parenting with me. I am incredibly grateful to Dr Maret Dymond (clinical supervisor) for her ongoing clinical supervision and personal support and advice during my pregnancy and return to work. Thank you to Jo Kucharska (academic supervisor) for her support, reassurance and gentle reminders to be kind to myself throughout the research. Thank you also to Dr Magdalena Marczak for her support and feedback. Thank you to the Oxford Mindfulness Centre (OMC) for supporting Dr Dymond to supervise me on this project. In addition, thank you to Dr Catherine Crane (OMC) and Dr Sian Warriner (Oxford University Hospitals NHS Trust) who helped me to navigate the ethics process and access the research participants.

Thank you to my parents, family and friends for their unconditional support, ongoing encouragement and belief in my ability to complete the Doctorate. Additional thanks to my Mum and Dad for numerous Grand-parenting and babysitting duties and phone calls of encouragement.

My greatest thanks go to my husband, Karim and beautiful daughter and mindfulness teacher, Imogen Grace. Without Karim's ongoing support, kindness, patience and unconditional belief in me I doubt this thesis would have been written. Thank you to Imogen for keeping me centred on what is important in life and providing me with regular breaks in the form of cuddles, love and sharing funny moments together. I love you both.

Declaration

This thesis has been written as part of the Doctorate in Clinical Psychology at the Universities of Coventry and Warwick. This thesis has not been submitted for a degree at any other university. This thesis is entirely my own work under the supervision of Dr Maret Dymond (Clinical Psychologist), Jo Kucharska (Clinical Psychologist) and Dr Magdalena Marczak (Chartered Psychologist).

The empirical study in Chapter 2 will be presented at the British Association of Behavioural and Cognitive Psychotherapy (BABCP) annual conference in July 2015 in the form of a poster presentation.

Summary

It is well documented that the perinatal period (the time from pregnancy until the first year of a child's life) is a crucial window of opportunity for foetal and infant development. Evidence suggests that parental psychopathology can have harmful consequences for the parent-infant relationship, parents' relationship, infant's development and later mental-health into adulthood. The focus of this thesis will be on exploring mindfulness as one possible non-pharmacological intervention that could benefit parents' emotional well-being during the perinatal period.

Chapter one contains a mixed methods systematic review of 14 published studies of Mindfulness and Acceptance Based Interventions (MABIs) during the perinatal period, for mothers experiencing anxiety and stress. The synthesis of quantitative and qualitative results were integrated and demonstrated tentative findings that MABIs can reduce anxiety, pregnancy anxiety and stress for mothers, whilst increasing self-efficacy and mindfulness. Qualitative themes discussed propose possible explanations for these findings. Methodological limitations are discussed in line with implications for clinical practice and recommendations for future research.

Chapter two explores mothers' and fathers' experiences of mindfulness during parenting, one year following their attendance on the Mindfulness-Based Childbirth and Parenting programme (MBCP). Ten semi-structured interviews gathered rich, in-depth, idiosyncratic accounts which were subject to Interpretative Phenomenological Analysis (IPA). Two superordinate themes emerged from the data, 'Getting closer to really living' and 'Greater connectedness and attunement'.

Finally, Chapter 3 provides a reflective account of the author's lived experience of the parallels between her own research journey and personal experience of becoming a mother. It addresses the author's epistemological position and the researcher's influence on the research process.

CHAPTER 1: LITERATURE REVIEW

Mindfulness and Acceptance Based Interventions for maternal anxiety during the perinatal period: A mixed methods systematic review

Prepared for submission to Archives of Women's Mental Health journal (please refer to Appendix 13 for instructions for authors for submission). Amendments will be made from the method section to submit for publication.

Overall chapter word count (excluding quotations, references and tables): 7, 937

1.1 Abstract

Purpose: Perinatal anxiety and stress can have harmful consequences for maternal emotional well-being, infant development and the mother-infant relationship. Emerging research suggests that Mindfulness and Acceptance Based Interventions (MABIs) may offer a promising alternative to pharmacological treatments for women during the perinatal period. This mixed methods systematic review aims to integrate the findings from quantitative and qualitative studies of MABIs during the perinatal period, on measures of anxiety, stress, self-efficacy and mindfulness. **Methods:** A systematic search of relevant databases was conducted between November 2014 and February 2015. **Results:** Fourteen published studies were included and incorporated two qualitative studies, three mixed method studies and nine quantitative studies (three with qualitative feedback). The synthesis of quantitative results and qualitative findings were integrated together. Tentative findings suggest that MABIs can demonstrate a reduction in anxiety, stress and improvements in self-efficacy and mindfulness. Qualitative themes of developing acceptance, self-awareness, emotional regulation and improved interpersonal relationships offered possible explanations for the quantitative results. **Conclusion:** Early research indicates that MABIs offer an acceptable approach for women to address anxiety and stress. Significant limitations of the current research warrant the need for future well-designed prospective studies with larger samples to investigate the efficacy of MABIs compared to other interventions.

Key words: *Mindfulness and Acceptance Based Interventions, maternal anxiety, stress, self-efficacy, perinatal period.*

1.2 Introduction

The time from pregnancy until the first year of a child's life is known as the perinatal period and is a crucial window of opportunity for foetal and infant development (Barber, 2009). Antenatal anxiety is common in women and is suggested to be more prevalent than depression during pregnancy (Lee, Lam, Lau, Chong, Chui & Fong, 2007), as well as a major risk factor in developing postnatal depression (Heron, O'Connor, Evans, Golding & Glover, 2004). Anxiety and stress across the perinatal period are associated with negative effects on birth outcomes, foetal development, the mother-infant relationship and infant development (Barber, 2011; Dunkel Schetter & Tanner, 2012).

1.2.1 Maternal anxiety and stress

Anxiety is characterised by intrusive thoughts including worries and fears about perceived threats, hypervigilance to physical sensations, experience of the fight-flight response, avoidance of feared situations and poor emotion regulation (Leahy & Holland, 2000). Anxiety and stress are positively correlated (Lovibond & Lovibond, 1995). Women can experience many forms of stress and anxiety disorders across the perinatal period, including post-traumatic stress disorder (PTSD) either pre-birth, due to previous traumatic life events triggered by invasive antenatal screening appointments, or following a traumatic birth (Barber, 2009). Additionally mothers may battle with obsessive-compulsive (OC) symptoms including intrusive thoughts about harming the baby and neutralising behaviours (Abramowitz et al., 2010). 'Pregnancy-related anxiety'

appears to be distinct from general anxiety in that it is specific to the perinatal period including fears about the current pregnancy, healthcare experiences, childbirth or parenting (Dunkel Schetter & Tanner, 2012). Stress can incorporate daily hassles (e.g. discomfort of pregnancy, clothes not fitting), major life event stressors (e.g. death of a family member), catastrophic event stressors (e.g. earthquake) or chronic life stressors including housing, financial or employment difficulties (Dunkel Schetter & Tanner, 2012).

1.2.2 Prevalence of maternal perinatal anxiety and stress

In Heron and colleagues (2004) prospective longitudinal study of a UK community sample of pregnant women, approximately 16% were diagnosed with anxiety at week 32 of gestation. At 8 weeks postpartum, 9% were diagnosed with anxiety and this changed to 8% at 8 months postpartum (Heron et al., 2004). However, estimating prevalence rates of anxiety and stress in the perinatal period has been difficult due to the methodological constraints of using self-report measures and the limited use of formal diagnostic assessments (Barber, 2011). Little is known about postnatal prevalence rates of anxiety. Ross and McLean's (2006) systematic review reported postnatal rates of perinatal anxiety disorders observed in the general population (1.4% to 1.5% for panic disorder; 2.7 to 3.9% for Obsessive Compulsive Disorder (OCD); 0% to 6.9% for PTSD and 4.4% to 8.2% for Generalised Anxiety Disorder). These figures were likely to be underestimated, considering the biased sampling and inconsistent use of self-report measures across studies (Ross & McLean, 2006).

Barber (2011) argues that women who meet the threshold for clinical diagnoses are likely to be the “tip of the iceberg” (p.22), since many women continue to report elevated, subthreshold symptoms of anxiety during pregnancy (Lee et al., 2007). Therefore it is recommended that clinicians and policy makers should identify and support women who experience subthreshold symptoms of anxiety, to minimise the potential adverse outcomes for mother’s psychological well-being and infant development (Barber, 2011).

1.2.3 Consequences of maternal anxiety and stress

Maternal anxiety and stress have been found to predict spontaneous pre-term birth, low birth weight (Dunkel Schetter & Tanner, 2012), reduced foetal growth and greater foetal activity (Conde et al., 2010). More specifically, pregnancy anxiety appears to be more dominant in predicting the risk of pre-term birth, with effect sizes similar to or larger than smoking or other medical risks, although reasons for this finding have yet to be researched (Dunkel Schetter & Tanner, 2012). Additionally, maternal anxiety is associated with poor neurodevelopmental outcomes such as reduced cognitive performance, an increased risk of emotional symptoms of fearfulness, anxiety, depression (Bergman, Sarkar, O'Connor, Modi & Glover, 2007) and behavioural problems in children (O'Connor, Heron, Golding, Beveridge & Glover, 2002). Of great concern is that approximately 10-15% of the risk of childhood behaviour and emotional problems can be attributed to maternal anxiety (Glover, 2014).

Women experiencing maternal anxiety are more likely to have a poor or traumatic birth experience (Soet, Brack & Dilorio, 2003), which could exacerbate mental health problems and make parenting more difficult. Additionally, a fear of childbirth can lead mothers to request an elective caesarean section delivery which increases their risk of physical complications in the medium to long term compared to a vaginal birth (NICE, 2013). However, improving self-efficacy in mothers (belief in one's ability to cope and succeed in situations) is suggested to prevent possible traumatic experiences in women following labour (Soet, Brack & Dilorio, 2003). Also self-efficacy is a strong predictor of parenting functioning, which can influence their child's development (Coleman & Karraker, 1998). Recently, a number of research recommendations have been made for antenatal and postnatal care in the UK to enhance the psychological well-being of mothers (NICE, 2014).

One research recommendation is to examine the efficacy of psychological interventions for moderate to severe anxiety disorders during pregnancy (NICE, 2014). Additionally, quality care standards recommend that women requesting caesarean section births because of maternal anxiety around vaginal birth seek professional support (NICE, 2013). Despite experiencing psychological distress during pregnancy, some women do not want to take medication during pregnancy to prevent harming the baby (Goodman, 2009), thus non-pharmacological interventions for maternal anxiety and stress are required. Firstly, psychological interventions for anxiety (across the lifespan) will be

explored with a specific focus on Mindfulness and Acceptance Based Interventions (MABIs), followed by MABIs during the perinatal period.

1.2.4 Interventions for anxiety across the lifespan

There are a large number of psychological interventions available for the treatment of anxiety. In the UK, Cognitive Behaviour Therapy (CBT) is recommended as an efficacious treatment for adults with anxiety disorders by clients directly modifying disorder specific cognitions (Hofman, Sawyer & Fang, 2010; Hofman & Smits, 2008; NICE, 2011). As an alternative treatment to traditional CBT, Mindfulness and Acceptance Based Interventions (MABIs) are increasingly being reported to demonstrate reductions in anxiety across the lifespan (Norton, Abbott, Norberg, & Hunt, 2015; Vøllestad, Nielsen & Nielsen, 2012) and will be the focus of this review.

1.2.5 Defining Mindfulness and Acceptance Based Interventions (MABIs)

Debate remains in the literature over whether MABIs are indeed a distinct ‘new wave’ of CBT (Hayes et al., 2004) or an extension of traditional CBT (Hofman et al., 2010). There is considerable overlap and little consensus on how to define ‘mindfulness and acceptance-based’ interventions as shown in Table 1.

Table 1. Illustration of the overlap of definitions of ‘mindfulness’ and ‘acceptance’ based interventions

Title used	Author	Interventions included
Acceptance based interventions	Veehof, Oksam, Schreurs & Bohlmeijer (2011)	ACT, MBCT, MBSR,
Mindfulness based interventions	Baer (2006)	ACT, DBT, MBCT, MBSR
Mindfulness- and acceptance-based interventions	Vøllestad, Nielsen & Nielsen(2012)	ACT, MBCT, MBSR, Acceptance-based Behaviour Therapy (ABBT)
‘Third wave’ mindfulness and acceptance	Hayes, Follette & Linehan (2004)	ACT, MBCT, DBT, Integrative Behaviour Couple Therapy, Behaviour Activation and Functional Analytic Psychotherapy

Mindfulness originates from Eastern traditions of Buddhist meditation and arises from an intentional focus within the present moment without judgement, as it changes moment by moment (Kabat-Zinn, 2003). This cultivates an attitude of acceptance within the present experience. The main premise for mindfulness-based interventions is the formal practice of meditation both within and outside of sessions. This foundation extends to mindfulness teachers who are required to complete extensive professional training and maintain their personal practice of mindfulness within their daily lives (UK Network of Mindfulness-Based Teacher Trainers, 2010).

One of the most commonly known acceptance based intervention is Acceptance Commitment Therapy (ACT; Hayes, et al., 1999). ACT targets experiential avoidance by encouraging people to accept the presence of difficult cognitions, physical sensations and emotions, and surrendering one's personal control over their experience (cognitive defusion). Another MABI is Dialectical Behaviour Therapy (DBT), which incorporates mindfulness skills training in order to be able to observe and accept difficult emotional experiences to enhance emotion regulation (Linehan, 1993). This has been successful in treating women with Borderline Personality Disorder to regulate emotions (Linehan, 1993). Both approaches include mindfulness exercises during the sessions but these do not involve formal meditation practices (Hayes, Follette & Linehan, 2004).

Despite the discrepancies in definition and practice, it is agreed that MABIs encourage people to observe and turn toward problematic symptoms through an approach of non-judgemental acceptance of their present experience, as opposed to directly engaging with the unhelpful cognitions (Hofman et al., 2010). Therefore MABIs seem less concerned with the disorder specific or content specific thoughts, emotions and behaviours. By working towards an increased awareness of internal experience through MABIs, an individual's relationship with anxiety changes as they identify less with their cognitions and physical sensations (Vøllestad, Nielsen & Nielsen, 2012). Through experiential acceptance of internal experiences (thoughts, emotions and sensations) a person is more able to engage in meaningful activities within their life (Orsillo, Roemer, Lerner & Tull, 2004). This serves to reduce efforts to avoid internal

experiences, such as thought suppression, which maintain anxiety (Orsillo et al., 2004).

In line with Vøllestad and colleagues (2012) this review defines MABIs as interventions which include components of mindfulness or acceptance, because they both enhance psychological flexibility and share similarities in observing thoughts known as 'decentring' or 'cognitive defusion', a non-judgemental approach or acceptance of experience (Hoffman et al., 2010).

1.2.6 MABIs for anxiety across the lifespan

There are a number of mindfulness-based interventions which have been identified as beneficial in reducing anxiety across the lifespan. Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990) is an 8 week course which was designed specifically for stress and includes a series of mindfulness meditations and yoga. Based on MBSR within a cognitive therapy framework, Segal, Williams and Teasdale (2002) developed an 8 week Mindfulness-Based Cognitive Therapy (MBCT) programme which was designed to prevent the relapse of depression. Both MBSR and MBCT have been found effective in improving symptoms of anxiety and stress (Hofmann, Sawyer, Witt & Oh, 2010; Khoury et al., 2013), with MBSR being effective in treating chronic pain (Kabat-Zinn et al., 1986). Furthermore, two systematic reviews indicated that ACT demonstrated promising reductions in anxiety symptoms and may offer a viable alternative to CBT (Landy, Schneider & Arch, 2015; Swain, Hancock, Hainsworth & Bowman, 2013). The physical and psychological changes during the perinatal

period can often result in anxiety, stress and pain and therefore MABIs may offer a promising alternative to medication (Hughes et al., 2009).

1.2.7 MABIs for maternal anxiety and stress

To date, only two systematic reviews have been conducted to evaluate the efficacy of antenatal interventions for maternal anxiety. Marc and colleagues (2011) found some evidence to suggest that mind-body interventions during pregnancy could help pregnant women manage their anxiety. Only one of the studies included a MABI. A subsequent systematic review reported a significant reduction in maternal distress (including anxiety, stress, fear, worry, and insufficient self-efficacy) within the “treatment intervention” analysis of three trials including acupuncture, self-help parenting book and mindfulness (Fontein-Kuipers et al., 2014, p.393). Both systematic reviews included Vieten and Astin’s (2008) Mindful Motherhood intervention which was adapted from MBSR and ACT. Additionally, the Mindfulness-Based Childbirth and Parenting (MBCP; Duncan & Bardacke, 2010) is a 9 week course (with a 10th postnatal reunion session) which was adapted from MBSR to include antenatal education and antenatal specific yoga movements. This demonstrated a reduction in anxiety and stress in pregnant women. Therefore MABIs could offer a promising alternative to medication as they have been found to have greater retention rates than traditional CBT (Khouri et al., 2013). Furthermore, maternal mindfulness can be beneficial for the postnatal period as it is associated with reduced infant negative affect and infant self-regulation problems; this

association was mediated by maternal anxiety (van den Heuvel, Johannes, Henrichs & Van den Berg, 2015).

1.2.8 Summary and rationale

Research is needed to identify non-pharmacological interventions to address maternal perinatal anxiety and stress, considering the adverse consequences for both mother and infant if left untreated. The perinatal period offers a window of opportunity in which mothers might be more motivated to make changes. This review aims to address the government recommendations by gaining a better understanding of how MABIs may benefit mothers (who experience maternal anxiety during the perinatal period) as an alternative to non-pharmacological interventions.

Mixed method reviews are becoming more common within the literature and are an opportunity to integrate the findings from quantitative, qualitative and mixed methods studies (Pluye & Hong, 2014). This allows policy makers to not only understand the effectiveness of an intervention but evaluate the appropriateness of the intervention by making sense of people's experience (Harden, 2010). Therefore Harden (2010) suggests that mixed method reviews are particularly beneficial in areas of public health where social interventions may need to be evaluated for the effectiveness alongside addressing policy and practice implications. As the literature within this area is growing, a mixed methods review was considered to be the most beneficial approach to meet the following aims.

1.2.9 Aims

This systematic review aims to provide a methodological critique, narrative synthesis and an integration of the quantitative and qualitative research of MABIs during the perinatal period. This review aims

- 1) To evaluate the effectiveness of MABIs within the perinatal period on psychological measures of anxiety, stress, self-efficacy and mindfulness compared to control groups (if present);
- 2) To examine the main themes emerging from the qualitative and mixed studies, to understand the appropriateness of the intervention;
- 3) To provide a broad discussion and integration of quantitative and qualitative research opposed to narrowing the focus by using a meta-analysis;
- 4) To identify clinical implications for the development of MABIs;
- 5) To identify future research recommendations.

1.3 Method

1.3.1 Review process

PRISMA guidelines for the development of the review protocol were adopted in order to minimise bias and allow for replication (Moher et al., 2009). A sequential explanatory mixed methods, narrative review was conducted through the integration of findings from quantitative and qualitative research as shown in Figure 1 (Harden, 2010; Pluye & Hong, 2014).

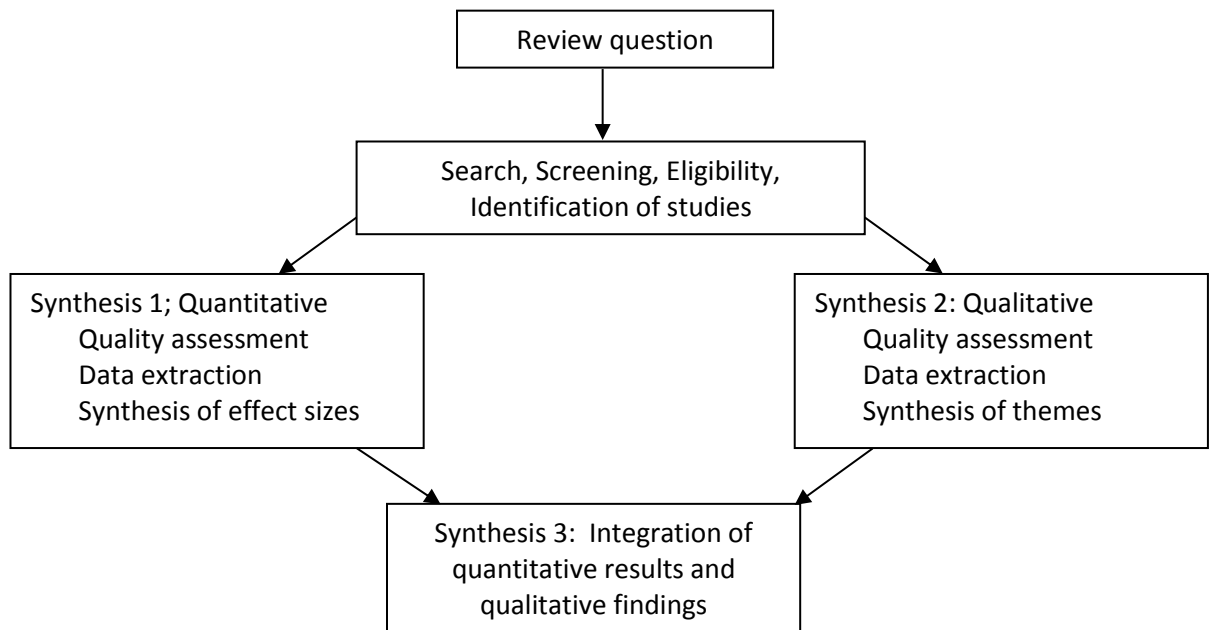


Figure 1. Sequential explanatory mixed methods review, adapted from Harden (2010)

1.3.2 Search strategy

In order to establish that the present review is an original contribution to the literature, a search was conducted on the Cochrane Database of Systematic Reviews, and The Centre for Reviews and Dissemination (DARE).

A search of the following electronic databases including Cochrane Pregnancy and Childbirth Group’s Trials Register, PsycINFO, CINAHL, MEDLINE, EMBASE, BNI and Web of Science. These databases were chosen to provide access to peer-reviewed journals within the psychology, nursing and midwifery

professions. Searches were completed between November 2014 and February 2015. Search terms (Table 2) were based on the research question.

Table 2. Search terms

Search terms	
mindfuln*, acceptance, MBSR, mindfulness based stress reduction, MBCT, mindfulness based cognitive therapy, MBCP, mindfulness based childbirth and parenting, ACT, acceptance commitment therapy, DBT, dialectical behavior therapy	Combined with OR then AND
pregn*, maternity, antenatal, prenatal, prepartum, perinatal, postnatal, postpartum	Combined with OR then AND
Maternal anxiety, fear of pregnancy, fear of childbirth, stress, worry, self-efficacy	Combined with OR then AND

1.3.3 Eligibility criteria

Due to the research area being in its infancy, the inclusion/exclusion criteria were followed in Table 3.

Table 3. Study selection eligibility criteria

Inclusion criteria	<ol style="list-style-type: none">1. Study included an identifiable sample of women within the perinatal period from both non-clinical and clinical populations;2. English written articles within any geographical boundary;3. Quantitative and mixed method studies reporting on at least one psychological outcome measure on either anxiety, stress or self-efficacy for women within the perinatal period, defined as between pregnancy to one year post-birth;4. Experiences of MABIs reported in qualitative studies;5. Peer reviewed articles;6. As MABI studies were recently emerging within the literature, studies which scored at least 40% score on the quality assessment framework were included (Appendix 1).
Exclusion criteria	<ol style="list-style-type: none">1. If articles were theoretical, a protocol, a review or conference abstract;2. The paper was not published in English;3. The sample of women were not pregnant or had children beyond one year post-birth;4. Quantitative measures did not include measures related to anxiety, stress or self-efficacy.

1.3.4 Systematic Study selection

1.3.4.1 Phase 1

Figure 2 illustrates the different stages of the study selection procedure in accordance to PRISMA recommendations (Moher et al., 2009). A total of 378 studies were generated from the search terms across all the databases. These

studies were downloaded into Endnote and duplicates were excluded. The remaining 198 titles and abstracts were screened. 179 studies were excluded for not being relevant or not meeting the inclusion criteria (including correlational, review, theoretical, medical or unpublished studies). This resulted in 19 possible studies. Authors of three published titles were contacted to access the full-text article however these articles had not been fully published. Each of the 16 studies was read in full and 13 studies met the inclusion criteria (see Figure 2).

1.3.4.2 Phase 2

Each article was subject to reference and citation checks which generated an additional two studies, of which one qualitative study met inclusion criteria. Secondary citation and reference checks generated no further studies for inclusion. A total of 14 studies were, therefore, eligible for the systematic review as illustrated in Figure 2.

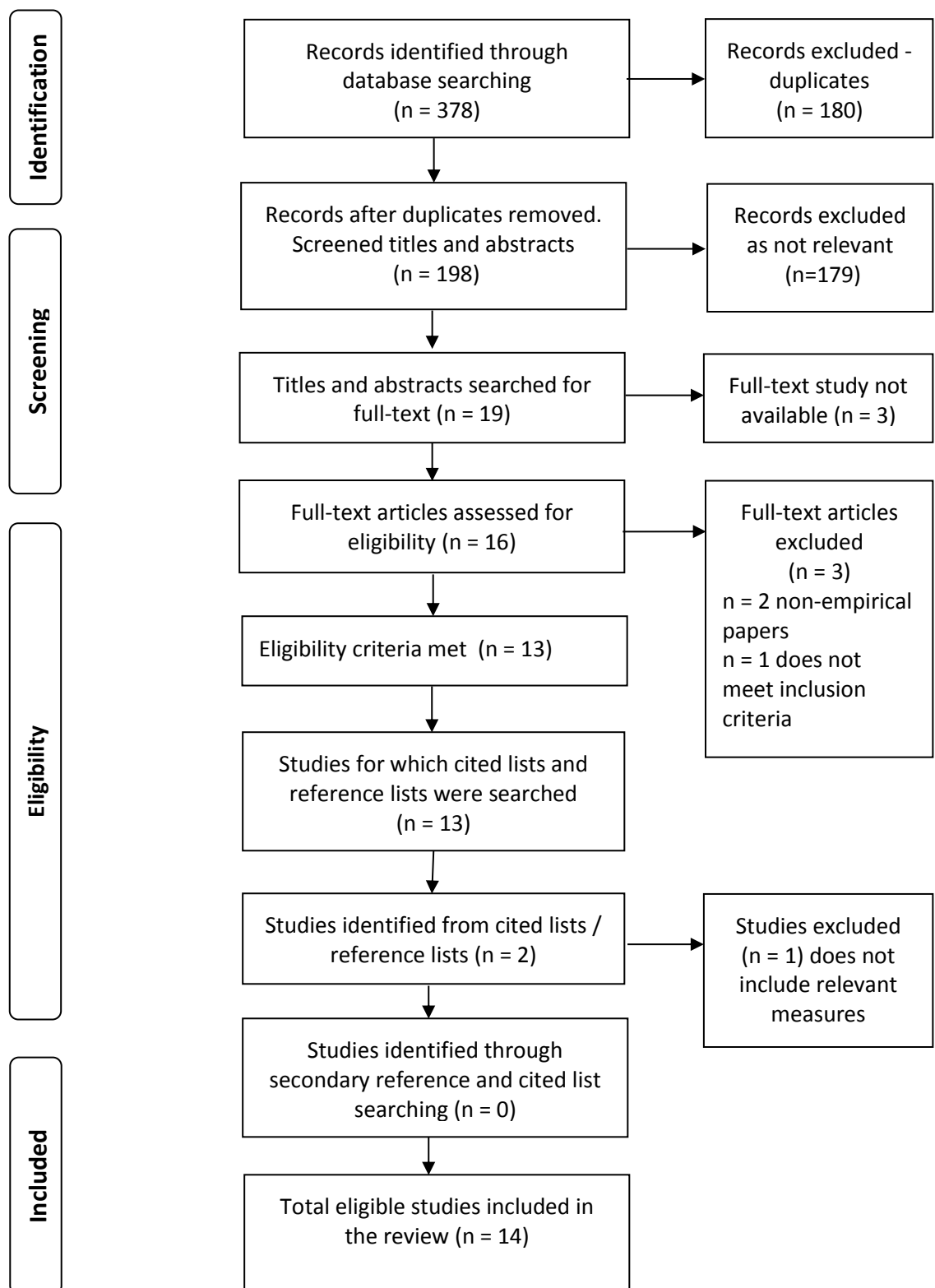


Figure 2. PRISMA flow diagram of the study selection procedure

1.3.5 Quality assessment

It is recommended that a formal evaluation of the methodological quality of studies within a systematic review is conducted (Sanderson, Tatt & Higgins, 2007). The validity of the results and conclusions drawn can only be made in the context of the methodological quality of the studies (Perestelo- Pérez, 2013).

1.3.5.1 Development of a quality assessment tool

As this systematic review included both qualitative and quantitative studies the development of a quality assessment framework (Appendix 1) was adapted from Caldwell, Henshaw and Taylor's (2011) framework of critiquing research. This was chosen because Caldwell and colleagues (2011) acknowledged historical limitations of appraisal tools for measuring qualitative studies against quantitative criteria. To address this problem, they generated a list of questions which are both common and specific to quantitative and qualitative research for the critical appraisal of empirical studies. However Caldwell and colleagues (2011) did not give consideration to mixed method designs. On further inspection of the literature it was decided to include three questions regarding the design and integration of findings in mixed method studies (Pluye, Gagnon, Griffiths & Johnson-Lafleur, 2009).

1.3.5.2 Quality assessment framework

The quality assessment framework included 30 items, of which 11 were generic items, eight items were specific to quantitative studies, eight specific to

qualitative studies and three items related to mixed methodology. The items were scored according to the presence of the criteria ('yes' = 2, 'partially' = 1, 'no' = 0, 'can't tell' = 0 or 'not applicable'=N/A). Scoring guidelines can be found in Appendix 1. For each paper a total percentage score was calculated in order to make a fair comparison across the studies.

1.3.6 Data extraction and synthesis

Data was extracted from each study using the data extraction proforma to ensure objectivity that consistent information was collated for the synthesis 1 and synthesis 2 (Appendix 2). Conducting a meta-analysis was not considered as appropriate because of the variation in research designs. According to Sullivan and Feinn (2012) an interpretation of results is enhanced if "both the substantive significance (effect size) and statistical significance (*p* value) are essential results to be reported" (p.279). The statistical significance does not indicate the magnitude of the effect between groups. Therefore, in order to compare different studies with different outcome measures for a dependent variable, the effect sizes were, where possible, calculated for each study (Cohen, 1988). Themes from qualitative papers, mixed papers and participant feedback in quantitative studies were pooled together to generate the main themes discussed in the results section.

1.4 Results

1.4.1 Summary of the reviewed studies

An overview of the 14 studies included within this systematic review is provided within Table 3. For the purpose of this systematic review, only the measures and findings associated with the research aims will be discussed. The quality assessment tool identified a number of methodological limitations across the sample of studies which will be discussed within the results. A breakdown of the quality assessment results for each study is found in Appendix 3. The quality of the studies ranged from 47% to 89% with a mean score of 77% using the quality assessment framework.

Table 4. Characteristics of the studies included in the review

Author, date and country	Sample and design	Intervention	Method of data collection	Key findings	Quality
Barber, Clark, Williams and Isler (2013) New Zealand	<p>Feasibility study <i>Study 1</i> : Quantitative repeated measures design</p> <p>Healthy, singleton pregnant women, at least 32 weeks gestation (n = 6)</p> <p><i>Study 2</i>: Quantitative repeated measures design with qualitative feedback (thematic analysis)</p> <p>Pregnant women in second trimester (n = 4) Pregnant women in third trimester (n = 5), 7 were first time mothers.</p>	<p><i>Study 1</i> One hour session including, baseline measures, treatment 1 = 10 minute teaching mindfulness, treatment 2 = biofeedback practice session.</p> <p><i>Study 2</i> 15 step self-help computerised package including mindfulness and relaxation.</p>	<p>Baseline to post-intervention assessments taken;</p> <p><i>Study 1</i> Fetal heart rate (FHR) monitoring. Galvanic skin response (GSR) - associated with physiological arousal, respiration and heart rate.</p> <p><i>Study 2</i> <i>Anxiety</i>: State Trait Anxiety Index (STAI – state and trait anxiety) <i>Stress</i>: Perceived Stress Scale (PSS-10, 1988) <i>Self-efficacy</i>: Coping self-efficacy scale (CSES)</p> <p><i>Feedback</i>: qualitative feedback questionnaire.</p>	<p><i>Study 1</i> From baseline to end of treatment 2</p> <ul style="list-style-type: none"> - for all decrease in respiration rate - 4/6 reduced heart rate - 4/6 had a reduced mean FHR, with one participant's mean increasing - Inconsistent findings for GSR. <p><i>Study 2</i></p> <ul style="list-style-type: none"> - Significant improvement in coping and self-efficacy - Decreases in perceived stress and anxiety. Increases in mindfulness and coping. Not statistically significant - Most found it helpful in feeling calmer during pregnancy and with other children. Reports supported acceptability of intervention. 	68%

<p>Beddoe, Kennedy, Powell, Weiss and Lee (2009)</p> <p>USA</p>	<p>Pilot feasibility study: quantitative repeated measures design with qualitative feedback.</p> <p>Healthy, singleton, first time pregnant women, enrolled between 12-32 weeks gestation (total n = 16, n = 8 second trimester group, n = 8 third trimester group).</p>	<p>7 week mindfulness-based yoga group intervention which combined Iyengar yoga and Mindfulness-Based Stress Reduction (MBSR). Additional out of session homework.</p> <p>Participants were paid \$100 to participate.</p>	<p>Baseline to post-intervention assessments taken;</p> <p><i>Anxiety:</i> State Trait Anxiety Index (STAI) for both state and trait anxiety</p> <p><i>Stress:</i> Perceived Stress Scale (PSS, Cohen et al., 1983) Prenatal psychosocial profile stressor subscale (PPP)</p> <p><i>Feedback:</i> Acceptability of group questionnaire.</p>	<p>From baseline to post intervention:</p> <ul style="list-style-type: none"> - Total group, significant decreases were found for perceived stress and trait anxiety. - Effect sizes not calculated due to non-parametric data. - Feedback: 94% satisfied with group, 63% better manage stress, 50% improved self-care. 	<p>84%</p>
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Byrne, Hauck, Fisher, Bayes and Schutze (2013) Australia	Pilot feasibility study: quantitative repeated measures, pre-post intervention design Healthy, singleton, first time pregnant women, enrolled between 18-28 weeks gestation (pre to post n = 12, pre to follow-up n = 16).	8 week Mindfulness-based Childbirth Education (MBCE) group, which integrated a skills-based antenatal education program with MBSR.	<i>Anxiety:</i> Depression Anxiety Stress Scales (DASS-21) <i>Stress:</i> DASS-21 <i>Self-efficacy:</i> Childbirth Self-Efficacy Inventory (CBSEI) <i>Fear of childbirth:</i> Wijma Delivery Expectancy Questionnaire (W-DEQ) measured fear of childbirth before labour (version A) and afterward (version B). <i>Mindfulness:</i> Mindful Attention Awareness Scale (MAAS).	From baseline to post intervention; - Statistically significant improvement and large effect sizes for self-efficacy and fear of childbirth which was maintained at follow-up for the latter. - Medium effect sizes for anxiety and mindfulness Pre to follow up - Statistically significant improvements and large effect sizes for anxiety, stress, and fear of childbirth. - Significant improvement and medium effect size for mindfulness.	76%
Duncan and Bardacke (2010) USA	Mixed method observational pilot study. Repeated measures, pre-post intervention design. Pregnant women in the late second to early third trimester, 92.6% first time mothers (n = 27)	9 week Mindfulness-Based Childbirth and Parenting (MBCP) program (adapted from MBSR). Additional out of session homework.	<i>Anxiety:</i> Pregnancy Anxiety Scale (PAS) <i>Stress:</i> PSS <i>Mindfulness:</i> Five Factor Mindfulness Questionnaire (acting with intention, non-judging and reactivity; FFMQ) Qualitative analysis – series of open ended questions – unclear how.	From baseline to post intervention; - Statistically significant increases in mindfulness, decreases in pregnancy anxiety (evident in large effect sizes). - Non-significant decrease in perceived stress with a small effect size. Qualitative findings; using mindfulness to deal with stressful situations and to be present in relationships with baby/partner.	75%

<p>Dunn, Hanieh, Roberts and Powrie (2012).</p> <p>Australia</p>	<p>Mixed method pilot study, repeated measures design.</p> <p>Treatment group, pregnant women, history of anxiety/depression, 12 to 28 weeks gestation (started with n = 10, n = 4 at pre-post intervention analysis, n = 6 at pre-follow-up analysis).</p> <p>Control group, pregnant women without a history of anxiety/depression, 17-29 weeks gestation (started with n = 9, n = 5 at pre-post intervention and pre-follow-up analysis).</p>	<p>8-week mindfulness-based cognitive therapy group (adapted mindful movement to be suitable during pregnancy). Additional out of session homework.</p>	<p>Reported baseline, post intervention and follow-up 6 weeks postpartum.</p> <p><i>Anxiety: DASS</i> <i>Stress: DASS</i> <i>Mindfulness: MAAS</i></p>	<p>From baseline to post intervention using the reliable change index:</p> <ul style="list-style-type: none"> - 3/4 experienced reliable decrease in stress, 1/4 experienced reliable decrease in anxiety, 1/4 experienced a reliable increase in mindfulness. <p>From baseline to follow-up 6 weeks postpartum:</p> <ul style="list-style-type: none"> - 2/6 experienced reliable decrease in stress, 1/3 experienced reliable decrease in anxiety, 1/3 experienced a reliable increase in mindfulness. <p>High attrition rate was not specified. Themes identified included acceptance, being in the present moment and stopping to focus on the breath.</p>	<p>58%</p>
<p>Fisher, Hauck, Bayes and Byrne (2012).</p> <p>Australia</p>	<p>Exploratory qualitative design to support Byrne et al., (2014) pilot study.</p> <p>Healthy, singleton, new mothers, enrolled between 18-28 weeks gestation (pre to post n = 12, pre to follow-up n = 16).</p> <p>Birth partners group (n=7, 6 partners and 1 new mother's mother).</p>	<p>8 week Mindfulness-based Childbirth Education (MBCE) group</p> <p>From the same groups in Byrne and colleagues (2014) study.</p>	<p>2 x 45min focus groups were run one for mothers (n=12) and one for birth partners (n=7) approximately four months after MBCE.</p> <p>Transcripts were analysed thematically using the constant comparison method by all four authors independently until consensus was reached.</p>	<p>Themes of 'empowerment' and 'community' permeated through 5 subthemes. These including becoming an active participant in the childbirth process, recognising own potential in birth process, extending mindfulness practice into parenthood and being in a community of parents.</p>	<p>76%</p>

Gambrel and Piercy (2015) USA	Qualitative phenomenological study design post intervention. Healthy, heterosexual couples pregnant from 12-36 weeks gestation with their first child (n = 13).	Mindful Transition to Parenthood Program (MTPP) – 4 weekly sessions (2hrs), with 15 minute daily mindfulness practice. Aims to increase both intra and interpersonal attunement skills. Additional out of session homework.	Semi-structured interviews were carried out with each couple 1 week after the completion of MTPP.	Using Phenomenological approach, themes that emerged included; -positive changes to self -improvements in the couple relationship -more prepared for the baby -male involvement Couples were more present when relating to each other which appeared to strengthen their relationship, and felt calmer during the remainder of the pregnancy. Father's benefited from being involved. Method of analysis not clearly identified.	89%
*Goodman, Guarino, Chenausky, Klien, Prager, Petersen, Forget and Freeman (2014) USA	Open treatment trial, feasibility study. Repeated measures design. Pregnant women with generalized anxiety disorder (GAD) or prominent symptoms of generalized anxiety (n = 24).	Coping with Anxiety through Living Mindfully (CALM) Pregnancy (adapted from MBCT for pregnant women experiencing anxiety). Additional out of session homework.	Reported baseline to post intervention measures; <i>Anxiety:</i> GAD-7; Beck Anxiety Inventory <i>Mindfulness:</i> MAAS <i>Worry:</i> Penn State Worry Questionnaire Qualitative feedback in a questionnaire with 3 open-ended questions.	From baseline to post intervention: - Large effect sizes and clinical, statistical significant improvements in anxiety and worry. - Statistically significant increase in mindfulness (small effect size) - 1/17 participants who met GAD criteria at baseline continued to meet criteria post-intervention. Qualitative feedback included: - Increasing their skills, connection, universality, acceptance and self-kindness, reduced reactivity and changes to thinking.	80%

<p>*Guardino, Dunkel Schetter, Bower, Lu and Smalley (2014)</p> <p>USA</p>	<p>Randomized controlled pilot trial, between-groups design.</p> <p>Pregnant women experiencing elevated stress, treatment (n=24) and control group (n = 23). Enrolled between 10 and 25 weeks gestation (mean = 17.78 (5.10) weeks).</p>	<p>6-week Mindful Awareness Practices classes with home practice. This was a generic, rolling mindfulness class with no antenatal education. Additional out of session homework.</p> <p>Control condition included pregnancy related reading.</p>	<p>Measures were taken at baseline, post intervention and 6 weeks follow-up post intervention.</p> <p><i>Anxiety: STAI</i> <i>Prenatal anxiety: Pregnancy-Specific Anxiety scale (PSA);</i> <i>Pregnancy Related Anxiety scale (PRA)</i> <i>Stress: PSS</i> <i>Mindfulness: FFMQ</i></p>	<p>Hierarchical linear models of between-group differences reported:</p> <ul style="list-style-type: none"> - Larger reduction in pre to post intervention scores for the mindfulness group compared with the control group on PRA and PSA. These effects were not maintained at 6 week follow-up. - Both groups showed a significant decrease in perceived stress and general anxiety and significant increase in mindfulness at post-intervention and 6 week-follow-up compared to pre-intervention measures. - Intervention group showed large effect sizes on all measures of anxiety, pregnancy anxiety and stress apart from one small effect size at post-intervention on PRA. - Control group showed medium effect sizes for anxiety and small to medium effect sizes on stress and pregnancy anxiety. 	<p>87%</p>
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<p>*Perez-Blasco, Viguer and Rodrigo (2013)</p> <p>Spain</p>	<p>Randomized controlled pilot study, between-groups design. Measures were taken pre and 3 weeks post intervention.</p> <p>Breastfeeding mothers, treatment (n=13) and control group, with no intervention (n = 8).</p>	<p>8-week mindfulness-based intervention (based on MBSR, MBCT and Mindful Self-compassion (MSC)). Additional out of session homework.</p>	<p>Measures taken at baseline and 3 weeks post intervention;</p> <p><i>Anxiety:</i> DASS-21</p> <p><i>Stress:</i> DASS-21</p> <p><i>Maternal self-efficacy:</i> Parental Evaluation Scale (Farkas-Klein, 2008)</p> <p><i>Mindfulness:</i> FFMQ</p>	<p>Baseline to post-intervention results indicated:</p> <ul style="list-style-type: none"> - Intervention group gained significantly higher scores on some dimensions of mindfulness and maternal self-efficacy. - Large effect sizes were found for the intervention group and small effect sizes for the control group on measures of anxiety, stress and self-efficacy. Significant differences were found between groups. 	<p>89%</p>
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<p>*Vieten and Astin (2008)</p> <p>USA</p>	<p>Randomized controlled pilot study, between-groups design.</p> <p>(Total n=31) comparing women who received the intervention (n=13) during the last half of their pregnancy to a wait-list control group (n=18).</p> <p>Participants were between 12-30 weeks gestation at the start of the intervention.</p>	<p>8 week Mindful Motherhood intervention (combining elements of MBSR, Acceptance Commitment Therapy and working on low mood during pregnancy). Additional out of session homework.</p>	<p>Measures taken at baseline and post intervention;</p> <p><i>Anxiety:</i> STAI</p> <p><i>Stress:</i> PSS</p> <p><i>Mindfulness:</i> MAAS</p>	<p>Baseline to post-intervention results indicated:</p> <ul style="list-style-type: none"> - The intervention group showed significantly reduced anxiety (effect size, 0.89; $p < 0.05$) compared to the control group during the third trimester. No significant differences between groups for mindfulness or perceived stress. - Effect sizes reported for perceived stress (Cohen's $d = 0.39$, small), state anxiety ($d = 0.85$, large) and mindfulness ($d = 0.68$, medium). However it is unclear as to how they were calculated. - Baseline to post-intervention effect sizes calculated* small effect sizes for both groups on mindfulness. Small effect sizes on anxiety and stress for the control group. Large (anxiety) and medium (stress) effect sizes in the intervention group. 	<p>79%</p>
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Warriner, Williams, Bardacke and Dymond (2012) UK	<p>Feasibility study; an exploratory workshop of using a mindfulness based approach during pregnancy.</p> <p>Attendees included 11 professionals and 6 expectant couples.</p>	<p>Weekend workshop based on the MBCP programme (Friday evening, Saturday and Sunday full days). Professionals attended an additional pre-workshop briefing and post-workshop round-up session.</p>	<p>Post workshop evaluation forms.</p>	<p>10/12 lay attendees (expectant couples) completed the post evaluation forms;</p> <ul style="list-style-type: none"> - Results demonstrated feasibility and acceptability of MBCP in UK. - All found the workshop useful and would recommend to others. - Feedback included providing a longer, more local course, suggestions to improve physical comfort. - Themes included, developing skills for life, skills to manage emotions, pain and fear, strengthening the couple relationship and being in the present, extending skills into parenting. 	47%
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Woolhouse, Mercuri, Judd and Brown (2014). Australia	<p>Pilot mixed methods study designed in two parts.</p> <p><i>Study 1</i></p> <p>A non-randomised study of a selected population of women at risk of perinatal stress, depression, or anxiety. Quantitative repeated measures, pre-post intervention design. Data collected pre and post intervention for 11/20 who gave baseline measures. 50% first time mothers.</p> <p><i>Study 2</i></p> <p>A randomised controlled trial of a universal population (total n = 32). Quantitative repeated measures, pre-post intervention design. Reported results for intervention group, n = 13/17, control group (care as usual) n = 10/15. 84.4% first time mothers.</p>	6 week MindBabyBody intervention (mindfulness intervention based on MBCT, MBSR, MBCT).	<p>Measures taken at baseline and post intervention;</p> <p><i>Anxiety:</i> DASS-21, STAI-state anxiety <i>Stress:</i> PSS, DASS-21 <i>Mindfulness:</i> FFMQ</p> <p>Interpretative Phenomenological Analysis of four interviews post-intervention.</p>	<p>Baseline to post-intervention results indicated</p> <ul style="list-style-type: none"> - <i>Study 1:</i> Non-randomised study. Significant improvement in state anxiety and mindfulness post intervention. High rate of attrition (45%). - <i>Study 2:</i> The intervention group showed significantly improvements to anxiety and mindfulness. No between group differences for the intervention and 'care as usual' control group were observed. <p>Qualitative themes included:</p> <ul style="list-style-type: none"> - Motivations to engage in mindfulness to help mental health, experiences within the group, engagement with mindfulness practice and changes to self, including; improvements in emotion regulation, interpersonal relationships and quality of life. 	89%
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<p>Zhang and Emory (2014)</p> <p>USA</p>	<p>Randomized controlled pilot study involved a 2x3 mixed model design.</p> <p>Compared the Mindful Motherhood intervention (n = 34) to a control group of treatment as usual (n = 31)</p> <p>Within group measures were taken at pre, post intervention, and one month post-intervention.</p>	<p>8 week Mindful Motherhood intervention (Vieten & Astin, 2008)</p>	<p><i>Mindfulness:</i> Toronto Mindfulness Scale The Toronto Mindfulness Scale (Lau et al., 2006)</p> <p><i>Stress:</i> PSS</p> <p><i>Stress:</i> PSS and the hassles scale of the Pregnancy Experience Scale — Brief Version (DiPietro et al., 2008).</p>	<p>There was high attrition in both assessment completion and intervention participation. Only 3/34 participants completed the MM group. Multiple linear regressions were conducted to examine the dose-effect on outcome measures.</p> <ul style="list-style-type: none"> - Significant positive association between the number of sessions attended and mindfulness at time 2, but not sustained at time 3. - Non-significant negative association between number of sessions and pregnancy specific hassles ($p = 0.075$, partial eta square = 0.105, large effect size). <p>None of these effects were maintained at one month follow-up.</p>	<p>82%</p>
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*Author calculated effect size

1.4.2 General study characteristics

1.4.2.1 Aims

Eleven studies aimed to investigate the effects of the MABIs on reducing psychological distress (including a combination of anxiety, stress, depression, fear of childbirth, worry, levels of cortisol and self-efficacy) within mothers during pregnancy or the postnatal period. Two studies explored the experiences of participants following the MABI (Fisher et al., 2012; Gambrel & Piercy, 2015) and one did not specify aims of the paper which evaluated a mindfulness-based antenatal weekend workshop (Warriner et al., 2012).

1.4.2.2 Design

The studies included two qualitative papers (Fisher et al., 2012; Gambrel & Piercy, 2015), six quantitative papers of which five were randomised controlled pilot trials which used both within-subjects and between-subjects design (Guardino et al., 2014; Perez-Blasco et al., 2013; Vieten & Astin, 2008; Woolhouse et al., 2014; Zhang & Emory, 2014). Only one intervention included an active control group (Guardino et al., 2014). One feasibility pilot study used a repeated measures design (Byrne et al., 2014). Three pilot studies used mixed methods (Duncan & Bardacke, 2010; Dunn et al., 2012; Goodman et al., 2014). Two studies shared the same sample but differed in design using qualitative (Fisher et al., 2012) and quantitative (Byrne et al., 2014) methodologies and so the data from each study was not considered to be overrepresented. In summary the study designs did vary, which is to be expected within a new area

of research. It is recommended that more rigorous mixed method designs be employed in future, with randomisation to groups.

1.4.2.3 Recruitment

Recruitment procedures varied according to the method of sampling. Participants from non-clinical populations self-referred into ten studies after being informed about the study in a variety of ways. These included advertising the study (online, newspapers and on television) and posting or giving flyers within antenatal healthcare settings. Brief presentations of the studies were conducted at childbirth education classes and birth centres. 'At risk' participants were generally identified by antenatal practitioners who were aware of the study and provided information to the participant (Goodman et al., 2014; Woolhouse et al., 2014; Zhang & Emory, 2014). Vieten and Astin (2008) found an improved recruitment rate once they changed the language of advertising materials to "dealing better with stress and moods" from 'dealing with anxious or depressed mood" (p.69). This could have practical implications for accessing the perinatal population who may not want to identify themselves as feeling anxious or depressed.

1.4.2.4 Sample

Ten studies included women from a non-clinical population, with the majority being first time mothers, educated and of higher socio-economic status. Three studies included women and birth partners (Fisher et al., 2012; Gambrel & Piercy, 2015; Warriner et al., 2012). The remaining studies included 'at risk'

populations, including three studies of women who had a reported history of anxiety or depression (Dunn et al., 2012; Goodman et al., 2014; Woolhouse et al., 2014) and one study of African-American women living in an urban area with low income (Zhang & Emory, 2014).

Eleven samples included women in their second or third trimester of pregnancy at the start of the intervention, with two studies including participants in their first trimester (Goodman et al., 2014, Woolhouse et al., 2014). Studies which included women in the first and second trimester of pregnancy reflected higher attendance and completion rates (Goodman et al., 2014; Woolhouse et al., 2014). One study involved breastfeeding mothers approximately four months postpartum with 84% study retention rate (Perez-Blasco et al., 2013).

The sample sizes of completed data within intervention groups ranged from 3 (Zhang & Emory, 2014) to 27 (Duncan & Bardacke, 2010). Therefore a common criticism of the studies was the small sample size, which restricted the generalisability of results across settings.

The mean age of samples ranged from 25.3 (Zhang & Emory, 2014) to 35.33 years old (Dunn et al., 2012), with eleven studies reporting a mean age greater than 30. Two studies did not report the age of participants (Barber et al., 2013; Warriner, et al., 2012). Therefore the findings in this review must be interpreted with caution because it does not represent data spanning the age range of mothers.

1.4.2.5 Interventions

As shown in Table 3 the majority of interventions were based on one or more of the existing MABIs and included MBSR (n = 10), MBCT (n = 4), ACT (n = 2) and MBCP (n = 2). Two studies did not specify how the interventions were developed (Barber et al., 2013; Guardino et al., 2014). One intervention was 15 sessions of individualised computerised self-help lasting approximately 45 minutes each (Barber et al., 2013) and one study was an MBCP based weekend workshop for pregnant couples and professionals (Warriner et al., 2012). The remaining interventions ranged from 4 to 9 sessions (plus an additional day retreat) with a mean of 7.42 weekly sessions, apart from Zhang and Emory (2014) who ran two sessions per week. The weekly sessions lasted between 2 to 3 hours, however in two studies the session's length was not given (Dunn et al., 2012; Zhang & Emory, 2014). Eight studies specified homework, including formal mindfulness meditations on CD/MP3 ranging from 15 to 40 minutes (n = 8), daily exercises (n = 4) and additional reading (n = 3). Three interventions (MBCE, MBCP and MTTP) included fathers or birth partners.

Ten studies indicated that the intervention facilitators had relevant experience and received specific training to facilitate mindfulness-based interventions. One study indicated the facilitator had completed the online Mindful Motherhood training (Zhang & Emory, 2014); however it was not clear how this training was audited. Where mindfulness teaching experience was not specified, caution

should be taken when interpreting results since the quality and consistency of teaching could be inferior to that of experienced MABI practitioners.

1.4.2.6 Measures

Seven studies reported perinatal related outcome measures for anxiety (Byrne et al., 2014; Duncan & Bardacke, 2010; Guardino et al., 2014), stress (Beddoe et al., 2014; Zhang & Emory, 2014) and self-efficacy (Byrne et al., 2014; Perez-Blasco et al., 2013). The remaining measures of mindfulness, anxiety, stress and self-efficacy were all reliable and validated on adult populations.

1.4.2.7 Methods of analysis

Qualitative data collection included interviews (n = 3), focus groups (n = 1) and qualitative feedback from questionnaires (n = 5). Themes in papers were generated using, content analysis, constant comparison thematic approach, interpretative phenomenological analysis and a phenomenological approach whereby the specific approach was difficult to decipher (Gambrel & Piercy, 2015).

In two quantitative papers Wilcoxon signed ranks test were used for non-parametric data (Barber et al., 2013; Beddoe et al., 2009). For larger samples paired samples *t* tests and repeated measures analysis of variance or covariance (for between subject designs) were the most common statistical tests. Due to high attrition rates, one study used multiple linear regressions to report the dose effect of the number of sessions on outcome measures (Zhang &

Emory, 2014) whilst another reported Reliable Change Indices (Dunn et al., 2012).

Effect sizes calculated by Cohen's d were included within three studies (Byrne et al., 2014; Duncan & Bardacke, 2010; Vieten & Astin, 2008). It was unclear how Vieten and Astin (2008) arrived at the reported effect sizes. Independent calculations for the effect sizes between groups (on reported mean change for each group) and calculations of effect sizes for each group independently, did not generate the reported results. Partial eta squared effect sizes were reported in two studies (Goodman et al., 2014; Perez-Blasco et al., 2013). Cohen's d effect sizes were calculated by the researcher for four studies with parametric data (Appendix 4). Scores are interpreted to provide small (0.2), medium (0.5) and large (0.8) effect sizes (Cohen, 1988).

1.4.3 Synthesis 1: Quantitative results

1.4.3.1 Anxiety

Baseline to post intervention effect sizes for anxiety ranged from 0.48 (Byrne et al., 2014) to 0.88 (Guardino et al., 2014) with a mean medium effect size of 0.75. Control group effect sizes ranged from no effect 0.00 (Vieten & Astin, 2008) to 0.63 (Guardino et al., 2014) with a mean small effect size of 0.22. Guardino and colleagues (2014) highlighted a likely confounding variable that 30% of their control group attended antenatal yoga during the test period. Participants in the control group may have been motivated to reduce their

stress since they self-referred into the study, which may explain the medium effect sizes calculated across measures.

A large mean effect size ($d=0.99$) was found from two studies reporting baseline to follow up outcomes on anxiety for the intervention group, effect sizes ranged from 0.93 (Guardino et al., 2014) to 1.046 (Byrne et al., 2014). A medium effect size was calculated as 0.73 for the only control group (Guardino et al., 2014).

All ten studies assessing general anxiety found a reduction at post-intervention for intervention groups. Statistical significance was reported on at least one measure in half of the studies (Beddoe et al., 2009; Goodman et al., 2014; Perez-Blasco et al., 2013; Vieten & Astin, 2008, Woolhouse et al., 2014), with non-significant reductions found in the remaining measures or studies. Dunn and colleagues (2014) reported that one out of four participants achieved a reliably significant change post treatment which increased to two at follow-up, compared to 0% and 20% in the control group.

1.4.3.2 *Pregnancy-specific anxiety*

Baseline to post intervention effect sizes ranged from 0.45 (Guardino et al., 2014) to 1.71 (Byrne et al., 2014) with a mean large effect size of 1.14 for pregnancy specific anxiety. Control group effect sizes ranged from 0.11 (PRA scale) to 0.61 (PSA scale; Guardino et al., 2014) with a mean effect size of 0.36.

Significant differences were found between baseline to follow-up outcomes of pregnancy anxiety for both intervention and control groups ($p < 0.05$). Large effect sizes from two studies were found across three different measures for baseline to follow-up outcomes ($d = 0.85-1.29$, $M = 1.02$), which contrasted medium mean effect size found in the control group (0.63, Guardino et al., 2014).

1.4.3.3 Stress

A medium mean effect size ($d = 0.72$) was found for the post-intervention outcomes for the intervention group, which increased to a large mean effect size at follow-up ($d = 1.0$). These findings contrasted with small mean effect sizes of 0.17 at post-intervention and 0.30 found at follow-up for the control groups. A non-significant reduction was found after post-intervention measures on perceived stress (PSS), stress (DASS-21) and pregnancy hassles (PPP) in both non randomised intervention groups (Barber et al., 2014; Beddoe et al., 2009; Woolhouse et al., 2014) and randomised intervention and control groups (Woolhouse et al., 2014). A significant reduction for perceived stress ($p = 0.05$; Beddoe et al., 2009) and worry ($p < 0.001$; Goodman et al., 2014) was found. Three out of four participants demonstrated a reliable clinically significant reduction in stress post intervention (Dunn et al., 2012).

Perez-Blasco and colleagues (2013) reported a significant difference between groups ($F(1,18) = 9.56$, $p = 0.006$), whereas Vieten and Astin (2008) reported no significant difference between groups ($F(2,24) = 0.90$, $p = 0.35$). One intervention

group reported an increase in stress ($d=0.20$) post intervention (Byrne et al., 2014). No association was found between the number of sessions and perceived stress at post-intervention or follow-up assessments, whereas a significant negative association was found for pregnancy related hassles and session attendance at post-intervention ($B=-0.067$, $t(29)=-2.54$, $p<0.01$) which was not maintained at follow-up (Zhang & Emory, 2014).

1.4.3.4 Self-efficacy

Barber and colleagues (2013) found a significant increase in coping self-efficacy from a Wilcoxon sign ranks test ($z=-2.52$, $p<0.05$). Baseline to post-interventions demonstrated a significant increase and large effect size in childbirth self-efficacy ($p<0.001$; Byrne et al., 2014). In Perez-Blasco and colleagues' (2013) study, the intervention group had a significantly higher self-efficacy score compared to the control group ($F(1,18)=10.83$; $p=0.004$). No follow-up measures were reported in these studies.

1.4.3.5 Mindfulness

Medium ($d=-0.58$) to large ($d=-0.84$) mean effect sizes were found for mindfulness at post-intervention and follow-up assessment respectively for the intervention groups, which contrasted the small ($d=-0.15$) to medium ($d=-0.67$) mean effect sizes found for the control groups. All groups reported an increase in mindfulness, except one control group (Vieten & Astin, 2008).

Perez-Blasco and colleagues' (2013) study did not report the full-scale mindfulness score and so effect sizes could not be calculated. However, the intervention group demonstrated significantly greater improvements than the intervention group on all of the mindfulness subscales apart from the 'describing' subscale of the FFMQ ($p < 0.001$ to $p = 0.010$). Woolhouse and colleagues (2014) found a significant improvement in the full-scale FFMQ score in the 'selected' non-randomised intervention group ($p < 0.01$). Non-significant increases on full-scale outcomes of mindfulness were reported for intervention (Barber et al., 2013; Woolhouse et al., 2014) and control groups (Woolhouse et al., 2014).

1.4.4 Synthesis 2: Qualitative – themes

Six themes were identified from the qualitative findings reported across nine studies and will be discussed in order of prevalence.

1.4.4.1 Acceptance

'Acceptance' for participants occurred across five studies and varied across situations. For example Goodman and colleagues (2014) reported that participants experienced an internal acceptance of self which included accepting undesirable emotions or states such as intrusive thoughts or anxiety. As a consequence acceptance was also linked with an increased self-kindness or non-judgemental approach to self, as illustrated in Gambrel and Piercy's (2015) quote,

“I definitely have an easier time with feeling this overwhelming urge to cry and being able to cry and feeling good about it, even feeling like I’m doing something good.” (p.32)

Dunn and colleagues (2012) describe the idea of ‘surrendering’ to the present experience and letting go of the desire for things to be different, which is similar to Duncan and Bardacke’s (2010) example of a non-judgemental acceptance of having a caesarean birth as opposed the originally desired natural birth.

1.4.4.2 *Slowing down in the present moment*

Present awareness seemed to provide a ‘slowing down’ within the moment across a variety of situations including:

- Interactions with children (Barber et al., 2013);
- During challenging times in order to prevent rumination (Dunn et al., 2012);
- Feeling more engaged in life (Gambrel & Piercy, 2015).

1.4.4.3 *‘Stop and think’ - a new way to respond*

Gambrel and Piercy (2015) reported how stopping to think enhanced participants’ emotion regulation, during which participants gained additional options in how to respond across various situations with their partner, baby or children (Barber et al., 2013). Dunn and colleagues (2012) describe,

“The ability to notice thoughts, feelings and bodily sensations and consciously choose a response was described by all the participants as an important skill they learnt on the course.” (p.142)

This way of responding was also described as “decreased reactivity” (Goodman et al., 2014, p.381) or “mindful awareness of emotional reactivity” (Duncan & Bardacke, 2010, p.198).

1.4.4.4 *Improving interpersonal relationships*

This theme combines a variety of interpersonal relationships within participants’ lives including relationships with colleagues, couple relationships (Gambrel & Piercy, 2015) and with group members (Dunn et al., 2012; Fisher et al., 2012; Goodman et al., 2014).

For some, the group format was experienced as a “community of likeminded parents” (Fisher et al., 2012, p.132) within which the sharing of experiences (Dunn et al., 2012) appeared to normalise and validate the individuals’ experience (Goodman et al., 2014).

Studies reported that the couple relationship appeared to be nurtured through an enhanced appreciation for their partner (Gambrel & Piercy, 2015) and a deeper sense of connection through greater communication, empathy and team work (Duncan & Bardacke, 2010; Fisher et al., 2012; Gambrel & Piercy, 2015; Warriner et al., 2012; Woolhouse et al., 2014).

1.4.4.5 Greater self-awareness and building life skills

Goodman and colleagues (2014) identified that participants gained a greater insight into their emotions and developed skills to help manage anxiety. This was supported by qualitative feedback suggesting that developing greater self-awareness leads to participants being able to change destructive patterns of thoughts, emotions and behaviour (Beddoe et al., 2009; Woolhouse et al., 2014) building skills to manage fear, pain and emotions about childbirth (Warriner et al., 2012). One participant appreciated,

“Learning different techniques to manage stress and anxiety, as one technique doesn’t necessarily fit for all people, or for one person at all times.” (Goodman et al., 2014, p.382)

This was congruent with individual preferences for either formal or informal mindfulness practice (Duncan & Bardacke, 2010; Woolhouse et al., 2014).

1.4.4.6 Greater empowerment and confidence

‘Empowerment’ permeated across themes in Fisher and colleagues’ (2012) study as participants reflected on having a greater confidence in their ability to become an active agent within the birthing process and more confident that they could cope with labour (Duncan & Bardacke, 2010). Gambrel and Piercy’s (2015) theme ‘more prepared for the baby’ illustrated examples of parents feeling more confident in managing their transition into parenthood.

1.5 Integration of findings and discussion

The medium to large effect sizes found on measures of anxiety for intervention groups in this review were comparable to the overall effect size found in Vøllestad and colleagues' (2012) study of MABIs on anxiety symptoms. The findings from the qualitative synthesis provide possible explanations for the reductions found in the levels of general anxiety, pregnancy specific anxiety and stress within intervention groups compared to control groups. Caution is however needed when interpreting these conclusions, due to the limited number of participants partaking in the qualitative research and the unknown experiences of control group participants.

Additionally, participants appeared to be able to prevent the rumination of anxious thoughts about situations by becoming more focused within the present moment. Participants' descriptions of developing an awareness and acceptance of one's internal experience (thoughts, feelings and emotions) seemed to allow the individual to detach from the usual habits of reacting to or avoiding experiences. This supports the suggestion that experiential acceptance of anxiety as opposed to avoidance can paradoxically reduce the experience of symptomology (Hayes, Follette & Linehan, 2004).

The use of 'stop and think' and 'slowing down' suggested a calmer and wiser approach to situations which may have enhanced the reduction in anxiety and stress found within these studies. This is in line with the findings of Soysa and Wilcomb (2015) who reported that non-reactivity and non-judging were

inversely related to anxiety and stress. They also found that stress was additionally predicted by poor awareness and increased isolation, thus, it is also possible that participants' improved interpersonal skills of communication may have contributed to the reduction of anxiety and stress.

Large effect sizes were found for measures of childbirth self-efficacy (Byrne et al., 2014) and parental self-efficacy (Perez-Blasco et al., 2013). This supports findings from Soysa and Wilcomb's (2015) study where self-efficacy in combination with mindful describing and non-judging was found to be predictive of well-being (Soysa & Wilcomb, 2015). Consistent with these limited results were the themes 'greater empowerment and confidence' and 'acceptance'. Confidence and empowerment seemed to be linked to participants' belief that they could cope with a variety of situations including decision making during childbirth. However the mechanisms for this greater confidence are unknown, for it could be in response to the antenatal educational elements of interventions rather than the mindfulness and acceptance skills-based element (Fisher et al., 2012; Gambrel & Piercy, 2015). What can be concluded is that a small number of participants felt more confident going into childbirth and parenting, which has been linked to more positive birth experiences (Soet, Brack & Dilorio, 2003) and better parental functioning (Coleman & Karraker, 1998). It is unclear whether this increased post-intervention self-efficacy was sustained, since one participant in Fisher's (2012) study experienced a loss of empowerment following childbirth. Therefore antenatal MABIs may need to provide greater clarity in how

mindfulness and acceptance skills can be used in childbirth, parenting and beyond. This could help prepare parents better for the transition into parenthood (Gambrel & Piercy, 2015).

Medium to large mean effect sizes were found on full-scale measures of mindfulness at post-intervention and at follow-up for intervention groups, although one study found a small effect size post-intervention for both intervention and control groups (Vieten & Astin, 2008). Themes from synthesis 2 closely linked to mindfulness and acceptance based practice and included acceptance, being in the present, non-reactivity and self-awareness.

1.5.1 Summary of methodological constraints

A number of methodological constraints were identified across the reviewed studies presented within the results section. The quality assessment identified that these studies were limited by the small, self-selected samples which may have been motivated to reduce their experience of anxiety (Guardino et al., 2014). Samples were often biased, with the majority including pregnant women over the age of 30, well-educated and of high socio-economic status. Furthermore all the studies were conducted in Westernised countries and accessed the perinatal population which was specific to the study's geographical location, thus limiting the external validity and generalizability of findings across different populations and cultures.

Limited conclusions can be drawn from this review because all the quantitative studies used a variety of self-report outcome measures for all variables assessed, with the majority of scales being validated on the normal population as opposed to pregnant women or new mothers. As self-report measures are susceptible to subjectivity, future research would benefit from employing more objective methods of assessment such as physiological measures, observational measures, standardised interviews and birth outcomes.

Another threat to the internal validity was that four of the five RCTs included a wait-list or treatment as usual control group, instead of an active control group (Guardino et al., 2014). Therefore it is impossible to ascertain within the published literature whether the medium to large effect sizes found at post-intervention and follow-up on measures of maternal anxiety can be attributed to the MABI or other confounding variables (Vieten & Astin, 2008).

Within qualitative procedures it was generally difficult to ascertain the credibility of the analysis due to a limited exploration of themes and quotations. Whilst this could reflect the limitations of the journal word count, some studies overcame this by including a table of themes and quotes (Dunn et al., 2014; Goodman et al., 2014). Only one qualitative study made reference to the author's epistemological position in potentially influencing the qualitative analysis via subjectivity (Gambrel & Piercy, 2015). Within studies employing the mixed methods design, less than half of them provided a clear integration of the

quantitative and qualitative findings, which is one of the aims of mixed methodology (Harden & Thomas, 2005).

1.5.2 Limitations of the review

There was an element of publication bias within this review because it excluded unpublished studies which had not been peer-reviewed. Therefore, it is possible that the findings in this study could be exaggerated because non-significant findings within the grey literature were excluded (McAuley, Pham, Tugwell & Moher, 2000). For instance, one unpublished dissertation found that a stress-reduction programme demonstrated better improvements in reducing anxiety in pregnant women compared to the mindfulness-based intervention (Bratton, 2008).

The focus of this review was on maternal anxiety and stress, however the author acknowledges that in reality there is a high co-morbidity of anxiety and depression and so potential studies may have been excluded due to the eligibility criteria. Furthermore, although none of the reviewed studies provided quantitative outcome data for fathers, one qualitative paper identified a theme (not included within this review) relevant to fathers feeling more prepared for parenthood (Gambrel & Piercy, 2015). This study also suggested that including mothers and fathers (or birth partners) together in the intervention enhanced the couple's relationship, which has clinical implications for future research.

1.5.3 Clinical implications and future research recommendations

Problems with recruitment and retention rates were most common within the antenatal interventions in comparison with the postnatal period. One common reason for non-completion of an intervention was early childbirth when women started the intervention in the second or third trimester. This could potentially be avoided by recruiting women earlier in pregnancy. Furthermore, barriers to attending interventions included lack of time, scheduling difficulties, problems with travel and the language used in advertising interventions (such as 'anxiety' or 'depression'). Therefore, professionals are encouraged to be sensitive to the language used in advertising (Vieten & Astin, 2008), especially if women are reluctant to engage because of the perceived stigma of admitting to symptoms of anxiety or depression. Having the time to commit to an intervention due to the stage of pregnancy or diary commitments, appeared to be a barrier to retention rates. Therefore one possibility could be to offer a rolling programme so that women do not have to wait for a MABI to start. Additionally, offering antenatal interventions in the evenings or weekends may help accommodate parents who are employed.

The duration, format and exercises within interventions varied from self-help to 9 weekly sessions and so this makes it difficult to ascertain what mechanisms are having an effect on improving psychological outcomes. Future experimental work is needed to investigate the theory and mechanisms for MABIs during the perinatal period. In addition, future research is required to understand the

dose-response (time spent practicing mindfulness in sessions and homework versus psychological outcomes) effects of mindfulness across the perinatal period. For example, Carmody and Baer (2009) did not find evidence of a dose-response effect across 30 studies. If shorter MABIs provide substantial benefits for women during the perinatal period, then this could provide a cost-effective non-pharmacological option for public healthcare settings such as the NHS.

High attrition rates were also found when targeting groups of women at risk of perinatal anxiety (Woolhouse et al., 2014; Zhang & Emory, 2014). One possible recommendation is to conduct interviews or focus groups with small samples to understand ways to enhance retention rates as shown by Thomas and colleagues (2014). Furthermore an area not explored specifically across studies was that of offering MABIs as an alternative for women who had experienced traumatic births, who want to overcome anxiety and stress triggered by a subsequent pregnancy (Duncan & Bardacke, 2010). This review provides initial evidence to suggest that MABIs improved mothers' emotion regulation of anxiety through a process of acceptance and non-reactivity to internal experiences. Therefore MABIs could benefit women who have experienced traumatic childbirths and future research is required to explore this further.

As the majority of studies indicated that fathers were not invited to attend the MABI, it is recommended that future interventions and studies are inclusive to fathers or birthing partners to enhance the interconnectedness of family well-being. This is because father's mental health problems can negatively affect the

child's development and self-esteem (Ramchandani, Stein, Evans & O'Connor, 2005). Further longitudinal research is needed to investigate the maintenance of effects on maternal and paternal well-being, as well as on infant and child developmental outcomes.

1.5.4 Conclusion

Research into MABIs across the perinatal period is beginning to establish itself within the literature in the context of feasibility, pilot and randomised controlled pilot trials. This mixed methods review offers tentative support that MABIs offer a promising alternative to pharmacological interventions as a means to reduce anxiety and stress and to increase self-efficacy during the perinatal period. The majority of interventions were conducted within the antenatal period with little attention given to experiences of fathers/birth partners. Little is known about the longer-term effects of MABIs on parental functioning, which could subsequently promote infant development. Prospective studies are needed in the form of RCTs with larger sample sizes to better evaluate the efficacy of MABIs compared with other interventions. Additionally studies employing qualitative methods and experimental work are needed to explore the possible mechanisms underlying MABIs in reducing maternal anxiety during the perinatal period.

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CHAPTER 2: EMPIRICAL PAPER

“Getting Closer to Really Living”; Parents’ experiences of mindfulness one year after attending the Mindfulness-Based Childbirth and Parenting programme.

Prepared for submission to Mindfulness journal (see Appendix 14 for the author’s instructions for publication). Amendments will be made from the method section to submit for publication.

Overall chapter word count (excluding footnotes, quotations, references and tables): 7, 262

2.1 Abstract

Background: The Mindfulness-Based Childbirth and Parenting (MBCP) antenatal programme was piloted in the UK in 2012. This is the first study from a UK sample to gather a qualitative account of both mothers' and fathers' experiences of mindfulness during the early parenting period after attending MBCP.

Method: Ten participants (7 mothers and 3 fathers) were interviewed when their children were approximately one year old. Semi-structured interviews were audio-recorded, transcribed verbatim and analysed using Interpretative Phenomenological Analysis.

Results: Two superordinate themes emerged from the interviews 'Getting closer to really living' and 'Greater connectedness and attunement'. Participants experienced a greater connection and more balanced approach to life which appeared to enhance their emotion regulation, interpersonal relationships and the parent-infant relationship. MBCP was perceived as a beneficial and supportive group that enabled them to develop a calmer approach to living with life's demands which suggests that participants adopted mindfulness as a life skill within their daily lives.

Conclusion: The findings from this study support the emerging quantitative studies showing that mindfulness can enhance parents' emotional well-being during the perinatal period. Parents' experiences are discussed in the context of existing literature. The clinical implications for practice and future research are discussed.

Key words: *mindfulness, parenting, parents' experiences, Mindfulness-based Childbirth and Parenting, interpretative phenomenological analysis*

2.2 Introduction

Pregnancy, childbirth and early parenthood is often a time of uncertainty, stress and transition, which can have important consequences for the parent-infant relationship, parents' relationship and infant development (Deave, Johnson & Ingram, 2008). Parents in the UK have reported that they feel ill equipped for both the practical aspects of having a baby and the emotional changes it could bring to their relationships (Deave et al., 2008). Some parents will experience mental health problems such as anxiety and depression during the transition into parenthood (NICE, 2014; Paulson & Bazemore, 2010). The cross-party '1001 critical days' manifesto (Leadsom, Field, Burstow & Lucas, 2014) argues the need for intervening between conception and two years old to promote infant's brain and emotional development, during which parental psychopathology can cause harmful effects. For example, antenatal maternal anxiety and depression is associated with an increased risk of preterm delivery and low birth weight (Dunkel-Shetter & Tanner, 2012), whilst postnatal parental depression is linked to poor parent-child relationships, parental disharmony, and poor infant cognitive, behavioural and emotional development (Lewinsohn, Olino & Klein, 2005; Murray, Woolgar, Cooper & Hipwell, 2001; Ramshandani et al., 2011). Consequently, the government are prioritising child and parental well-being through initiatives such as *Supporting Families through the Foundation Years* (Department of Education & Department of Health, 2011) and *Preparing for Birth and Beyond* (McMillian, Barlow & Redshaw, 2009). One way of preparing parents for parenthood is through antenatal education.

The most recent systematic reviews of group antenatal education have drawn limited conclusions due to a lack of good quality research (Gagon & Sandall, 2007; McMillan et al., 2009). Antenatal education does not routinely address the mental well-being of parents, and this has contributed to poor engagement and response rates (Baydar, Reid & Webster-Stratton, 2003; Robinson & Emde, 2004). Often the intervention aims do not meet the needs of the participants and leave fathers feeling excluded and unsupported (Deave et al., 2008; Gagnon & Sandall, 2007; McMillan et al., 2009; Smith, 1999). There is little evidence to suggest that antenatal education prevents depression in mothers (McMillan et al., 2009). This is likely to leave parents requiring additional interventions which are not cost-effective (Leadsom et al., 2014). Since parental emotional well-being has a direct impact on child development, it is important to promote mental health within antenatal and parenting interventions. One promising approach to address this gap is mindfulness which is evidenced to promote both physical and emotional well-being (Grossman, Niemann, Schmidt & Walach, 2004).¹

2.2.1 Mindfulness

Mindfulness originates from Eastern traditions of Buddhist meditation and is defined by Jon Kabat-Zinn (2003) as,

“the awareness that emerges through paying attention on purpose, in the present moment, and non-judgementally to the unfolding experience moment by moment.” (p.145).

¹ Other treatment approaches for anxiety disorders include Cognitive Behavioural Therapy and Interpersonal Psychotherapy (NICE, 2011).

Over the years mindfulness based approaches have developed a good evidence base in reducing psychological distress and promoting emotional well-being in a number of populations (Baer, 2014). Kabat-Zinn (1990) founded the Mindfulness-Based Stress Reduction (MBSR) programme in USA, for patients referred with chronic physical health conditions whom the existing medical system were unable to help further. A meta-analysis concluded that MBSR demonstrated consistent positive effect sizes in the management of chronic pain, stress and physical conditions (Grossman et al., 2004). Mindfulness-Based Cognitive Therapy (MBCT) was later developed from MBSR and incorporated concepts and exercises from cognitive therapy. It also has proven beneficial in preventing the relapse of recurrent depression (Piet & Hougaard, 2011) and anxiety disorders (Hoffman, Sawyer, Witt & Oh, 2010).

Paradoxically, mindfulness based interventions do not target symptom reduction per se. However, it is proposed that mindfulness increases one's self-awareness and acceptance of internal experiences (thoughts, emotions and sensations). This in turn reduces maladaptive habits of thought suppression and rumination, which encourages greater behavioural engagement and psychological well-being (Roemer & Orsillo, 2009). Based on findings from brain imaging studies, Siegel's (2009) theory of interpersonal neurobiology proposes that mindfulness increases neural integration in the middle pre-frontal cortex, which is concurrent with more flexible and adaptive thinking styles. This pattern is associated with well-being, secure parent-child relationships (Siegel, 2009) and improved quality of relationships

between partners (Carson, Carson, Gil & Baucom, 2004). In line with these findings, it has been proposed that mindfulness interventions can be applied across the lifespan (Duncan, Coatsworth & Greenberg, 2009) and benefit parent-child interactions as well as the emotional well-being of parents (Duncan & Shaddix, 2015).

2.2.2 Mindful parenting

Kabat-Zinn and Kabat-Zinn (1997) offer a mindful approach to parenting whereby parents cultivate awareness and openness in all moments with their children, along with a non-judgemental acceptance of the self and the child. Mindfulness can help parents become aware of how their own and their children's physical and emotional needs are interdependent, and how mindfulness can foster opportunities for compromise (Kabat-Zinn & Kabat-Zinn, 1997). More recently, Duncan and colleagues (2009) proposed the 'Model of Mindful Parenting' from the theoretical and empirical literature of mindfulness and parenting. They relate five dimensions of mindful parenting to the parent-child relationship as:

“(a) Listening with full attention, (b) non-judgemental acceptance of self and child, (c) emotional awareness of self and child, (d) self-regulation in the parenting relationship; and (e) compassion for self and child.” (Duncan et al., 2009, p.258).

The majority of the mindfulness-based parenting interventions have either addressed psychological distress during pregnancy or parenting beyond the postnatal period. Firstly, improvements have been found on measures of anxiety,

depression and stress during pregnancy following mindfulness interventions addressing parenting and childbirth in clinical (Dimidjian et al., 2015; Goodman et al., 2014), non-clinical (Barber, Clark, Williams, & Isler, 2013; Dunn, Hanieh, Roberts & Powrie, 2012; Guardino et al., 2014; Muzik, Hamilton, Rosenblum, Waxler & Hadi, 2012; Vieten & Astin, 2008; Woolhouse, Mercuri, Judd, & Brown, 2014) and minority populations (Zhang & Emory, 2014). Secondly, mindfulness parenting interventions have shown improvements in parent-child interactions for parents with disruptive children (Dumas, 2005) with developmental disabilities such as autism and attention deficit hyperactivity disorder (Singh et al., 2006; Singh et al., 2007; Singh et al., 2010), and parent-youth relationships in high risk families (Coatsworth, Duncan, Greenberg & Nix, 2010; Coatsworth et al., 2014 a, b).

There are currently only two mindfulness based antenatal interventions which aim to address pregnancy, childbirth and early parenting and include birth partners (father, life partner, support partner). The first is the Mindfulness-Based Childbirth and Parenting programme (Duncan & Bardacke, 2010) which will form the basis of this study and is outlined below. The second is the Mindfulness-Based Childbirth Education (MBCE) programme which was recently piloted in Australia and reported an increase in women's self-efficacy and reduction in fear of childbirth (Byrne, Hauck, Fisher, Bayes & Schutze, 2014). Participants reported a sense of empowerment and community which extended into the postnatal period for both women and their support partners (Fisher, Hauck, Bayes & Byrne, 2012).

2.2.3 Mindfulness-Based Childbirth and Parenting programme (MBCP)

Over the last 17 years Nancy Bardacke (mindfulness teacher and trainer, Nurse-Midwife) has developed and clinically refined MBCP, after formally adapting MBSR (Kabat-Zinn, 1990) to include antenatal education. It is hypothesised that MBCP could provide a preventative approach to enabling women and their partners to manage the psychological stress during pregnancy, childbirth and the transition to parenthood and beyond. MBCP involves 9 sessions (plus a day retreat and postnatal reunion class) with daily mindfulness homework practice. MBCP emphasises the importance of building a sense of community within the group intended to reduce the potential negative risk of social isolation during early parenthood. The programme addresses gaps in service provision (McMillan et al., 2009) by including both mothers and fathers (or birth/support partners) as equal participants (Warriner, Dymond & Williams, 2013) and addressing parental emotional well-being (Duncan & Bardacke, 2010).

In the USA, MBCP has demonstrated increases in mindfulness and positive affect and decreases in anxiety and depression in a small sample of self-selected pregnant women (Duncan & Bardacke, 2010). More recently Duncan and colleagues (2014) reported an increase in self-efficacy and reduction in depression following a shortened MBCP based skills training workshop, in a randomised control trial of socio-economically and ethnically diverse women. In a qualitative study of MBCP mothers from the USA, themes emerged of mothers using mindful attention and emotion regulation strategies to maintain

a calm and attuned approach to parenting (Shaddix, 2014). This study did not report fathers or birthing partners' views.

In the UK, MBCP has been well received and was first demonstrated to be an acceptable antenatal intervention by both parents and professionals, following a 3 day workshop with Nancy Bardacke (Warriner, Williams, Bardacke & Dymond, 2012). Subsequently, two 9-week MBCP groups were facilitated with participants reporting benefits of using mindfulness during pregnancy and labour and in the early stages of the postpartum period (Warriner et al., 2013). These participants will be the focus of this qualitative study, which aims to explore the experiences of parents one year following MBCP.

2.2.4 Rationale

As outlined above, the antenatal and postpartum period can be a vulnerable time for parents being at an increased risk of emotional distress, which could have a lasting negative impact on child development (Deave et al., 2008). Mindfulness based interventions suggest a positive impact upon maternal emotional well-being during pregnancy (Duncan & Bardacke, 2010; Dunn et al., 2012; Warriner et al., 2013) and also upon parental satisfaction alongside improved parent-child relationships (Bailie, Kuyken & Sonnenberg, 2011; Coatsworth et al., 2010; Singh et al., 2010). The majority of studies have been carried out in Australasia and the USA (see Table 3, Chapter 1) with little research from UK samples (Bailie et al., 2012; Warriner et al., 2012). Interventions so far have targeted either pregnancy and childbirth together *or*

parenting alone as separate interventions. Further research is needed to understand whether parent-child relationships can be enhanced by mindfulness antenatal interventions (Sawyer Cohen & Semple, 2010).

MBCP exclusively focuses on the antenatal period, transition into parenthood and beyond, in addition to being inclusive of fathers/life or birthing partners. Current research on the MBCP programme has primarily focussed on outcomes around the pregnancy and childbirth life stages (Duncan & Bardacke, 2010; Duncan et al., 2014; Warriner et al., 2013). Additionally, one unpublished study in the USA, as reported by Shaddix (2014), followed up MBCP mothers' experiences of parenting.

A qualitative exploration of MBCP parents' experiences of mindfulness practice during early parenting is needed to compliment current outcome studies. It will provide an effective means to explore participants' experiences about the efficacy and acceptability of the MBCP intervention, within a systematic and coherent framework (Hodgetts & Wright, 2007). This is particularly important given that including service user involvement (i.e. parents) is a key priority for the NHS England, which aims to "ensure that public, patient and carer voices are at the centre of our healthcare services from planning to delivery" (NHS England, 2013, p.5,).

2.2.5 Aims and research question

This study aims to follow up the first two groups from a non-clinical population within the UK who participated on the MBCP programme at the Oxford Mindfulness Centre. It particularly aims to recruit *both* mothers and fathers/life partners who experienced the group as a mixed sex sample as fathers/life partners are often underrepresented in the parenting literature (Phares, Lopez, Fields, Kamboukos & Duhig, 2005). A ‘bottom up’ qualitative exploratory approach will be used to understand participants’ experiences of mindfulness and parenting for three reasons. Firstly, mindfulness is developed through experiential learning via meditation practice and the focus is on an individual’s subjective experience. Secondly, participants will be drawn from the first groups ever run in the UK, and therefore it is important to gather rich and in depth data of individuals’ experiences to establish what themes emerge from a UK sample. Thirdly, it is hoped that the experiences of the participants can inform the ongoing development of MBCP in the UK.

The primary research question will be, ‘what are participants’ experiences of mindfulness in parenting and emotion regulation within the first year of completing a MBCP programme?’

2.3 Method

2.3.1 Design

As outlined above, a qualitative research design was considered the most appropriate methodology. In keeping with the researcher's epistemological position of wanting to understand the range of participants' voices and experiences of mindfulness (if any) behind the quantitative outcome measures, interpretative phenomenological analysis (IPA) is considered the most appropriate methodology. IPA aims to gather a detailed and idiographic understanding of participants' lived experiences (Smith & Osborn, 2008). It examines the similarities, differences, convergence and divergence of experiences within a homogeneous sample (Smith, Flowers & Larkin, 2009).

2.3.2 Participants and recruitment

A total number of 36 parents (n=15 fathers and n=21 mothers) were written to by one of the MBCP facilitators to invite them to participate in this study (Appendix 7). Participants who attended 7 (or more) out of 9 sessions of the MBCP programme were included within the study, in order to ensure that they had covered the majority of the programme content. A total of 14 participants (n=4 fathers, n = 10 mothers) volunteered to participate in the study. One father was excluded for not meeting the inclusion criteria and two mothers were excluded for not being able to be interviewed due to personal circumstances. The last mother was not interviewed due to time constraints set for data

collection. A good depth and range of experiences was gained after ten interviews, which fits with Hefferon and Gil-Rodriguez's (2011) suggestion of between four to ten participants within a fairly homogeneous sample for a doctorate project.

All participants from the MBCP group were the biological parents of the expected children and identified themselves as White European ethnicity. All participants were in heterosexual relationships and were either in a marital or co-habiting relationship. With regards to employment, two participants were full-time mothers and the remaining were in full-time study or full-time employment. Two participants had previously experienced the loss of their first baby (these babies are included within the figures shown in Table 1 below but have not been identified in order to protect anonymity). Nine participants had a single birth and one participant had twins. Five of the participants were interviewed from group 1 and five participants from group 2. At the time of interview the infants ranged from 10 to 14 months old.

Table 1: Participant demographic information

Participant	Age	Partner Attended MBCP	No of children	Relationship status	Maternity / Paternity Leave	Previous experience of....		
						Mindfulness	Meditation	Yoga
Beatrice	38	No	2	Married	Full time mother	No	No	Yes
Charlotte	38	No	3	Married	4 months	Yes	No	Yes
Dominic	40	Yes	1	Co-habiting	2 weeks	No	No	No
Emily	39	Yes	1	Co-habiting	12 months	Yes	No	Yes
Faith	38	Yes	2	Married	9 months	Yes	Yes	No
Harriett	34	Yes	1	Married	13 months	No	No	Yes
Joe	33	Yes	1	Married	2 weeks	No	No	No
Kimberley	35	Yes	1	Married	9 months	No	Yes	Yes
Liam	38	Yes	1	Married	None	No	Yes	No
Maria	40	Yes	3	Married	12 months	No	Yes	Yes

2.3.3 Procedure

2.3.3.1 *Ethical approval*

Ethical approval was granted by Coventry University Ethics Committee (Appendix 5) and the University of Oxford Ethics Committee (Appendix 6). Participants provided informed signed consent by signing the consent form (Appendix 9) after they had read and understood the contents of the participant information sheet (Appendix 8). This included information about their right to withdraw, the nature of data collection (audio recording), storage of data, limits to confidentiality, methods to protect anonymity and the dissemination of results.

2.3.3.2 *Interview procedure*

Semi-structured, individual interviews were conducted between July and August 2012 at the participants' home or at their place of work, approximately 14 months after they completed the MBCP course, when their infant was approximately one year of age. The interview schedule was designed to include open-ended questions about aspects of the participant's experience in line with recommendations (Smith et al., 2009). The interview schedule was reviewed by the supervision team who are experienced in qualitative research. The researcher gave participants the opportunity to provide open, honest and in depth accounts of their experiences by using the interview schedule (Appendix 10) as a guide. The first interview was the pilot interview which incorporated additional feedback questions to evaluate whether the interview schedule needed adjusting. Flexibility around the order of questions ensured that the

interview was led by the participant's individual experience (Howitt, 2010). The duration of interviews ranged from 33 minutes to 1 hour and 15 minutes ($M = 58$ minutes) long. The role of the researcher was understood to be of an active listener, since the participant maintained the expertise of their own life experience (Smith et al., 2009).

2.3.4 Analysis

Interviews were recorded using a digital audio recorder and then transcribed verbatim by the researcher. All participants were sent a copy of their interview transcript to proof read to enable them to identify any areas of text they would prefer not to be quoted in the final report, in order to protect their anonymity (Appendix 12). All participants were given a pseudonym. The data was analysed using Interpretative Phenomenological Analysis (IPA). Details of the stages of analysis and an extract of a transcript can be found in Appendix 11.

2.3.4.1 *The Researcher's position*

IPA acknowledges the dynamic role of the researcher's previous assumptions and in all qualitative studies the researcher's subjectivity has its role to play (Smith et al., 2009). The researcher was a female Trainee Clinical Psychologist, who does have both professional and personal experience of mindfulness, but was not involved in the facilitation of MBCP. During the data collection and analysis phase the researcher herself was pregnant. The researcher practiced the self-help version of MBCP in the book 'Mindful Birthing' (Bardacke, 2012) after all data had been collected. Part of the hermeneutic approach within IPA,

is for the researcher to understand how their assumptions may impact upon the interpretative analysis. One suggestion is to “identify areas of potential bias and to ‘bracket’ them so their influence on the research process is minimal” (Ahern, 1999, p.407). The researcher was aware that her personal situation was close to that of the participants, and used ‘bracketing’ technique in the form of reflective journals and interviewing herself to identify any personal assumptions that may impose upon the data.

2.3.4.2 *Quality control*

Yardley’s (2008) criteria to assess the quality and validity of qualitative research were used throughout the study (see reflections in Chapter 3). The researcher approached a Trainee Clinical Psychologist and Chartered Psychologist who both read and coded an interview transcript. This allowed for a discussion with an objective person, free from bias or assumptions about the similarities and differences between their codes and themes from the data. Furthermore the researcher consulted her academic and clinical supervisors to discuss the codes and themes emerging across the entire sample.

2.4 Results

Following IPA analysis of the interview transcripts two main themes emerged which represent the participants' experiences. The first superordinate theme, "Getting closer to really living", emerged from participants' accounts of using mindfulness in their everyday life and includes four subthemes 'Grounded in present awareness', 'Containing the difficult through observing, acceptance and letting go', 'Enriching experiences in the moment – "it's like being given lots of little gifts throughout the day"' and 'Equanimity'.

The second superordinate theme, 'Greater Connectedness and Attunement' emerged from a greater sense of connection that participants had to others and their experience. This includes two subthemes including; "Shared adventure...we're doing it together" through deeper empathy, trust and intimacy' and 'Parent-baby attunement'.

The two superordinate themes and six subthemes are summarised in Table 2 (below). Table 3 identifies the recurrent subthemes for each participant.

The superordinate and subthemes will be explored individually by incorporating extracts from participants' transcripts to provide a narrative account of participants' lived experiences (phenomenology). Interpretative accounts will consider the relationship between convergence and divergence within themes (Smith et al., 2009).

Table 2. Superordinate and subthemes

Superordinate theme	Subthemes
Theme 1: “Getting Closer to Really Living”	<ul style="list-style-type: none"> • Grounded in present awareness • Containing the difficult through observing, acceptance and letting go • “Enriching experiences in the moment – it’s like being given lots of little gifts throughout the day” • Equanimity
Theme2: Greater Connectedness and Attunement	<ul style="list-style-type: none"> • “Shared adventure...we’re doing it together” through greater empathy, trust and intimacy • Parent-baby attunement

Table 3: Identification of the similarities and differences of subthemes between participants

	Beatrice	Charlotte	Dominic	Emily	Faith	Harriet	Joe	Liam	Kimberley	Maria	Present in over half the sample?
“Getting closer to really living”											
Grounded in the present	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	YES
Containing the difficult through observing, acceptance and letting go	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	YES
Equanimity	x	x	✓	x	✓	x	✓	x	✓	✓	NO
“Enriching experiences in the moment – it’s like being given lots of little gifts throughout the day”	x	✓	✓	✓	x	✓	x	✓	x	✓	YES
Greater connectedness and attunement											
“Shared adventure...we’re doing it together” through greater empathy, trust and intimacy	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	YES
Parent-baby attunement	x	✓	✓	✓	✓	✓	✓	✓	✓	x	YES

2.4.1 Superordinate Theme 1: “Getting closer to really living”

The majority of participants experienced a lack of time since becoming parents. Despite this, all participants expressed that mindfulness has become embedded into their daily life through informal practice. All participants shared an experience of getting closer to really living. This was extracted from Dominic’s perception of what mindfulness meant for him;

I would say it’s.... (pause). Getting closer to really living. I think it’s setting aside all the business and distraction, and actually being there in the moment, and actually enjoying some things sometimes. You know, yes you’ve got lots of things on your mind all the time, but, putting that aside and, and just concentrating on being there. That’s something that really helped me. Just paying attention to life and the experiences that you are having right now. You know, I certainly realised that I’d stopped noticing things (laughs), I’d stopped, really paying attention to life. [...] I wasn’t really, wasn’t really fully living.

(Dominic, 155-167)

Dominic described paying attention to the present moment, which helped him manage his stresses in life and so feel calmer. The contrast in his use of language jumps from ruminating over worries to being in the present. This reflects the contrasting subthemes under the superordinate theme of really living, which encompassed a variety of parenting experiences from difficult to rewarding. The first subtheme illustrates participants’ enriched experiences of the rewards of parenting.

2.4.1.1 Subtheme: *“Enriching experiences in the moment – it’s like being given lots of little gifts throughout the day”*

The first part of the theme’s title comes from Faith’s experience of mindful moments being “much more enriching” (Faith, 655). There was a noticeable quality to participants’ descriptions when recalling memories of moments with their children and partner. This was evident in Charlotte’s account within which she appears to have a greater sense of connection to the memory;

I don’t know why I remember this one so much, but there was some time when I was crossing a road with [second child] and he automatically put his hand in my hand. And for some reason I really tuned into the feeling of his hand. So there are times like that really where, yes, so I guess, sometimes it’s a kind of visual thing, but sometimes it’s a touch or sound as well. And it’s often a really brief thing, but it generates the thought ‘I love that’ and ‘this is right’ or ‘this is how I want to be’ kind of thing.

(Charlotte, 1005-1015)

Often narratives like Charlotte’s used more than one sense, which seemed to enrich the experience for the individual and they seemed more connected to the vivid recall of the memory. These memories were often described within the context of the ‘brief’ and ‘quick’ rewards of parenting, which many of the participants believed would be easy to miss if you were not present in the moment. For example Harriet shared;

...she's quite affectionate but only quick cuddles, so whenever she does give me a cuddle I take it with both hands, and have it.

(Harriet, 591-593)

The second part of the subtheme title was taken from Emily's account of experiencing rewards from her child and seeing the world through his eyes;

It's like being given lots of little gifts throughout the day, and opening them and thinking 'oh this is gorgeous, and aren't they kind in giving me this?', and rather than putting them to one side and not looking at them...

(Emily, 345-349)

Here Emily's use of metaphor of being given 'gifts' throughout the day, describes the reward she experiences as a result of paying attention in the moment with her baby. This contrasts the habitual concept of being on 'autopilot' and not being aware or awake for experiences. In essence for many, like Emily, the baby became the mindfulness practice, as Liam recounts the similarities between the raisin practice² and time with his baby;

...are times when I am with [baby's name], where I really do bring myself into the moment. And experience him like having him sat on my lap and just studying him. You know we'll be reading a book but I am just fascinated by his tiny little fingers and how they are moving and the way he... moves himself to get settled, and just the way his

² A meditation practice that involves using the senses to paying attention to a raisin, in order to learn how to bring awareness to experience as it unfolds moment by moment.

eyes follow the pages and stuff like that. It's almost like the raisin exercise again. It's almost like the raisin exercise again. There's a very kind of deep experience that I have, I find myself just with him, just really in that moment, just with him and studying him, and I am fascinated by him. And it's such an amazing sensation, I feel very lucky to experience that. And they are usually very brief episodes. [...] It's almost a meditation in itself in some respects. He centres me emotionally.

(Liam, 426-453)

Within this extract, Liam's use of the word 'just' keeps drawing the reader's attention to his appreciation of being fully focused in the moment with his son.

2.4.1.2 Subtheme: Grounded in present awareness

Implicit within the participants' accounts was a greater sense of connectedness to their experience in the present. By using the breath, participants described a greater focus and attention which consequently they experienced as feeling more centred, grounded and anchored in the present moment, as opposed to thinking about the future or past. Beatrice shared;

I live less in the future in thinking about, 'things are going to be better' or 'if I do this and I do that' or 'if I go here and go there'. I am very much more grounded in 'this is it, this is, and that's great, and it's not great' and you know, 'it just is'.

(Beatrice 385-390)

Interestingly, although not asked specifically about labour experiences, over half of the mothers communicated how they used their focus on the breath to help them cope with anxiety and pain through labour. This appeared particularly important to Faith;

It was knowing that I didn't have to think about what was coming next. I think it was anchoring me in the present moment that was so, so useful. Just, something, one of the mindfulness practices that I did a lot before childbirth was the breathing meditation. And that was very helpful during childbirth because I was only dealing with that moment when I was breathing in and out. I wasn't thinking, 'what's the time, or when is this going to end or it's hurting'. I was thinking 'I breathe in and I breathe out'. And that is what I focussed on in labour for most of labour which was 16 hours, so I guess it was a 16 hour meditation, but I think, you know when there was the contractions, the very painful ones I would concentrate on that and then 'that's it, and that's gone'. And I wasn't thinking 'oh is it going to hurt this much in the next one!', I was just here and now, and I think that helped me a lot.

(Faith, 538-552)

For Faith, it appeared that her ability to focus in the present and 'only deal with that moment' prevented her from ruminating about the labour and pain and potential enormity of the task. It appeared that she was using her breath to keep her anchored and calm within each moment. There also seemed a sense of pride that she was able to maintain her focus for such a long period of time. This apparent self-efficacy during labour was also present for Emily, Charlotte and Kimberley during labour and the postnatal recovery.

Participants' accounts of their increased capacity to be present in the moment also linked closely to examples of participants' reports of developing a greater self-awareness of both internal and external behaviours within the moment. Emily described this as making her "feel very complete" (232). Emily became more aware of how her interpersonal behaviours and cognitions could be detrimental to her relationships;

I think I have been more aware of the things that I can tend to do, like erm, just things like interrupting conversations, or holding onto resentment or irritations (mmm), that kind of day to day thing, which on its own is not particularly a big deal, but if you add it up over time, it does become a big deal.

(Emily 1095 – 1101)

For example Maria reflected on how she had become more aware of her thoughts, emotions and avoidant coping style;

And I think that's because in some way mindfulness has, erm...made me more aware of myself, and my kind of feelings and thoughts. Whereas I think in the past I would have probably of just shoved them to the back somewhere or glossed over it a bit and gone and done, 'yes I'm fine'. And I think actually it's, it's I don't necessarily understand how, but it's enabled me to bring....maybe to open up a little bit more and deal with things in, more in the current time.

(Maria, 587-594)

This conscious and present awareness of thoughts, emotions, physical sensations and interpersonal behaviours, appeared to lay the foundations for participants to turn toward difficult situations in early parenthood, described in the next subtheme.

2.4.1.3 Subtheme: *Containing the difficult through observing, accepting and letting go.*

There was evidence of convergence and divergence within this theme, in that all participants described using mindfulness to contain difficult experiences, albeit across a wide range of situations. Common challenges of becoming a new parent centred on themes of prioritising the baby's needs and a lack of time. Over half of participants described experiencing ruminations and worries about the baby's welfare and self-doubt as a parent when faced with uncertainty and 'not knowing what to do' when managing their distressed baby. From participants' accounts, 'containing the difficult' appeared to involve several processes of 'observing' the difficulty followed by 'acceptance and letting go'. This helped the individual to contain their own emotional response and be with difficult experiences.

All participants spoke of a conscious process of 'stepping back' or detaching from their difficult thoughts or emotions at times. This appeared to help them gain some distance and be able to 'observe' these processes in the moment. Liam experienced this as reducing the intensity of the emotion;

it's actually stepping right back behind the emotions, so it's almost like kind of witnessing the emotions

[...]

I still experience them..(pause) but their intensity diminishes to a level where they are not driving my actions. So I am more conscious of how to respond to them. And I think, actually, I am confident in saying that I move through them quicker.

(Liam, 185-186; 329-333)

Acceptance of 'what is' in the moment, covered a broad range of experiences including acceptance of self and internal experiences of thoughts, pain and emotions. Charlotte found it difficult to initially bond with her baby and experienced some periods of low mood. She recalled;

...trying to accept the fact that I was feeling like this, and trying to kind of accept myself for it not all being lovely and easy.

(Charlotte, 1195-1197)

In this extract, Charlotte's use of the word 'trying' seems to communicate that it took effort for her to be able to accept her 'self' for not finding it lovely or easy. This seemed important within her narrative because she later concluded that without acceptance and mindfulness her low mood may have led to depression. Harriet communicated that the process of letting go helped to reduce her anxiety;

...it helped me to not get all panicky, because there was so often something that I didn't know, and I wanted the answer to something and something else. You know I was worried about that, and using

mindfulness helped me to just sort of let go of those fears and thoughts and the future and worries and just be where I was.

(Harriet, 227-232)

Other processes included acknowledging the impermanence of situations, which seemed to enhance the individual's self-efficacy. Kimberley experienced a difficult recovery after labour, which required her to temporarily stop breastfeeding. This was very distressing for her and she felt like a 'failure' for not being able to breastfeed. Here she highlights how acknowledging the impermanence of her situation helped;

I don't know if I would have coped as well if I had not done that course, and learnt all those things. Especially with things 'it is okay, and it will get better and it's not going to be forever, just because it is like this right now does not mean that this is how it's going to be for the rest of your life'. And it's quite comforting to know that.

(Kimberley, 317-322)

Finally, participants reported acceptance of difficulties within relationships with others or in needing to re-prioritise or change their plans after their baby was born. Liam explains;

I have found that I can't throw enough flexibility at the situation where you have to continually reassess priorities and change matters. And also I think what's definitely changed as well from parenting is having to let go of expectations and I think that's still a challenge today. [...] If I just let go of expectations and then just go

with the moment and what's needed right in that moment, it tends up ending up being a smoother day anyway.

(Liam, 507-532)

Containing the difficult was also presented in the context of when the participant's baby was crying or in distress. However, these examples were also interpreted as participants being attuned and responsive to their baby's needs, so will be discussed in the 'Parent-baby attunement' theme.

2.4.1.4 Subtheme: *Equanimity*

This theme encompasses recurring emergent themes of participants finding life easier to cope with, because they have developed a calmer and more balanced approach to life situations, which consequently reduced their stress levels. Dominic reflects this in the following extract;

And doing the classes for me, I really felt, a lot calmer, it helped me realise how stressed I was and help me deal with that stress. And made it, yes, made life just a lot easier.

(Dominic, 55-58)

This was also reflected in other participants developing a greater sense of patience, kindness, appreciation, gratefulness and non-judging both to self and others within situations. Here, the meaning for participants was interpreted as them gaining an enhanced quality of life and greater sense of control through being more balanced in their response to situations, which paradoxically contrasts

with the practice of letting go of situations they could not control (as described in 'Containing the difficult').

Paradoxically, the majority of participants experienced contrasting themes including; lack of time after their children were born versus gaining more space and time when mindfulness was applied. For example, Joe summarises;

...it's paying attention to what you are doing [...] by then doing that, you become less stressed in what you are doing. And it seems to give you more time and space by slowing things down. It's kind of, the more haste less speed thing, you know just stop, think about what you're doing, because if you take 5 minutes to think about it, it will all be a lot easier.

(Joe, 145-153)

2.4.2 Superordinate Theme 2: Greater connectedness and attunement

2.4.2.1 Subtheme: *'Shared adventure, we are doing this together' through deeper empathy, trust and intimacy with others*

The majority of participants recounted a greater sense of togetherness and connection to other people in their life, which seemed to enhance the quality of their relationships. This was encapsulated in Charlotte's quote and generated the title of this theme;

it seems more like a shared adventure in a way, that we are kind of doing this together [...] But I just think we have more of a sense of being together and facing problems together.

(Charlotte, 822-832)

The interpretation of 'shared adventure' included a sense of intimacy and communication about the rewards and challenges of parenting. The process of 'we're doing it together' encapsulated the sense of team work and not being alone on the journey into parenthood. Firstly, a shared similarity for participants was the strengthening of their relationship with their partner and others. This is described in Dominic's account below;

Dominic: I think, it's probably deepened our relationship and I think it's given us something else in common as well, and I think it's given us space to talk about the things are difficult to talk about. And a calm means of doing that... Yeah, and I think it's helped our communication certainly. I think it's helped us to recognise things in each other as well, and yeah, I'd say just overall it's been really positive in that way.

Interviewer: And, how about your relationship in parenting together? What have your experiences been of that?

Dominic: You know I think we try to recognise each other's limits, and you know it's quite often unspoken when clearly you've had enough, I'll take over or vice versa, and to being able to team up in that way. I think also again to recognise emotions and to deal with them and also to have a certain language to do that. That's been very important.

(Dominic, 530-546)

Dominic's account also can be interpreted as gaining a greater empathy for his partner. At times, they seem to have an 'unspoken' communication to provide support to one another in stressful situations. In contrast he describes mindfulness as 'it's given us space to talk' and given him a 'certain language' through which to communicate. This 'new language' was both explicitly and implicitly evident in over half of the participants' accounts. This intimate communication of thoughts and feelings also seemed to be facilitated by a non-judgemental attitude to listening to their partner's experience, as Harriet recounts;

...(partner's name) does properly listen and I do wonder whether it's from that (MBCP), a proper listening. And trying not to judge what I think he's going to say and let him come up with things.

(Harriet, 761-764)

Participants' experience of openness, honesty, willingness to listen and empathise with their partners was interpreted as meaning they gained a greater sense of trust and intimacy through 'sharing the adventure'. This enhanced trust transferred into other relationships whereby Kimberley, Liam and Harriet shared experiences with group members that they would not have spoken about with their close friends. The ultimate trust was shared between two mothers who provided childcare for each other. A sense of community was discussed across participants in the context of close bonds being made. Here Emily compares her experience of the MBCP group to her previous antenatal group;

...it just seems more like a different sort of connection where we've maybe just shared something more sort of spiritual, perhaps. Yes, I think that's how I would describe it.

(Emily, 1315-1317)

The second part of the subtheme's title 'we're doing it together' arose from emergent themes of sharing the experiences with their partner and group members. This provided a sense of 'not being alone' through normalising their experiences of parenting, which benefited Faith;

But when you see that others are going through the same things, I found comfort in that, knowing that I'm not alone with the same problems.

(Faith, 61-63)

In addition, for six participants 'we're doing it together' included a sense of 'team work', which was described by Joe:

I think our relationship has grown stronger but through being kind of tested more often. Erm, realising that we've really, really got to work together. There's no point in trying to pull in different directions. Erm and realising what each other are doing for the greater good.

(Joe, 470-475)

Related emergent themes included problem solving, negotiation and compromise, which brings the reader back around to the start of this section, to Charlotte's quote which generated the title of the subtheme above.

2.4.2.2 Subtheme: Parent-baby attunement

The majority of participants shared examples of communicating with their baby or trying to understand their baby's needs, which was interpreted as developing empathy for their baby. In doing so, it appeared that participants became more attuned to their baby's behaviours and then had a better chance of interpreting their baby's needs and responding accordingly. Kimberly describes observing her baby whilst playing;

...it does help me play, because I feel like I understand him a lot more, just, watching what he does, how he moves, how he interacts with people, you know what he's going for, trying to anticipate things so, I'm giving him choices as well, especially with books, he'll quite often pick out what he wants. Yes...but the signs are generally there. You can't get it right all the time. There are sometimes when I just, I don't know what he wants andbut they don't seem to be as often as I thought they would be, if you're.... I guess it's about the same as any other relationship, if you are willing to listen and put your time in you can really understand the person.

(Kimberley, 572-583)

Kimberley's account of empathy seemed an important factor in understanding her baby's world and needs. One of the most common examples that reflected 'parent-baby attunement' was when the baby was in distress. Nearly all parents

described maintaining a calm approach through a process of accepting the situation, which opened their thinking to a repertoire of options to soothe the baby.

The majority of participants suggested that their baby could sense their emotions. For example, Maria described using mindful walking with one or sometimes both babies when they were unsettled or in distress; “Just doing that really lovely slow, kind of deliberate walk” (269). She continued to reflect on how this affected her levels of frustration if she noticed her thoughts escalating and how the motion during the ‘really lovely slow walk’ was also comforting for the baby;

...if you’re calm and kind of collected and kind of comfortable, those emotions will go through to the them as well. Because, I think if you’re, kind of frustrated or getting a little bit upset, your body language changes, you can become stiff in the arms and kind of maybe holding on tight. Whereas if you are comforting and relaxed you’ve got a softer arm, and I think that your body is softer and that your emotions are softer and I think that, they can feel all that I am sure.

(Maria, 317-325)

Here, Maria draws reference to how the baby is somewhat attuned to the parent’s body sensations and will respond accordingly. This calmness appeared to bring a sense of comfort and security to their baby during distressing times, as Faith describes;

because I was calm I was able to transmit that calmness to him, and so he could just sense that everything is okay, because I am saying 'it's okay'. And so that for me gave me a lot of confidence as a mum.

(Faith, 332-334)

A number of parents portrayed a greater sense of connection and bond with their baby when they were sharing enjoyment with their children. Charlotte describes this attuning to her baby's emotional experience through observing her baby's behaviour including noticing if 'he smiles at me, or hearing his laugh' (1001-1002). Harriet describes observing her daughter's play and how she resists the urge to interrupt, showing an attunement to her baby's experience;

I give myself time to just watch what she is doing or play with her, but without sort of trying to push things, just being, just doing whatever she's doing or letting her do what she is doing without trying to go 'no we should be doing this reading a book, or should be doing that'.

(Harriet, 571-576)

To conclude, the meaning for participants was that mindfulness allowed them to 'be' with their babies in the present during the challenging and the rewarding times. This enhanced their ability to empathise and respond to their baby's needs through a process of attunement.

2.5 Discussion

This study was the first UK study to carry out an in-depth, idiographic exploration of mothers' and fathers' experiences of mindfulness during early parenting. Two superordinate themes "Getting closer to really living" and 'Greater connectedness and attunement' were inter-related and will be explored with sensitivity to the context of the existing theoretical and empirical literature (Yardley, 2008).

2.5.1 "Getting closer to really living"

The title of this theme embodies the sense that parents experienced mindfulness as an evolving life skill that has helped them become more awake and involved in life's experiences. There was evidence of divergence between subthemes, which embodied a range of emotional encounters that parents experienced during the first year of parenting. Parents reported a greater attention and awareness within the present moment. This appeared to enable them to notice and contain difficult experiences or conversely be present and appreciative of the rewarding times of parenting. Thus, this present moment awareness seemed to lead to enrichment in experience, which showed in the clarity of parents' description of memories which used a variety of senses. This is in line with current findings that mindfulness increases the specificity of autobiographical memories mediated by an increase in cognitive flexibility (Heeren, Broeck & Philippot, 2009).

Given that the transition into parenthood can be a pressured time for parents and cause distress (Feeny, 2003; Hildingsson & Thomas, 2014), it was promising to learn that this sample of parents experienced an increase in emotion regulation. This is in line with Siegel and Hartzell's (2014) advice that parents need to take an "inside-out approach to parenting" (Chapter 1, para. 1) by building their inner resources of self-awareness and emotion regulation. Participants perceived that by developing their ability to focus on the present moment and step back and observe their internal processes, it enhanced their flexibility to respond rather than automatically react within situations. Chambers, Gullone and Allen's (2009) conclude that this process enhances emotion regulation by interrupting the engagement with the automatic appraisals which could lead to upsetting emotions.

Participants reported gaining a calmer approach to life. This calmer approach was interpreted as having an implicit sense of control, despite often needing to let go of situations outside of their control. This is in line with the assumption that MBCP enhances participants' psychological resources for managing distress (Duncan & Bardacke, 2010).

This superordinate theme substantiates the principles of 'emotional awareness of self' and 'self-regulating in the parenting relationship' described within the Model of Mindful Parenting (Duncan et al., 2009). Furthermore, it lends support for Bögels, Lehtonen and Restifo's (2010) hypothesis that improved parenting is mediated by mindful attention through the mechanisms of reduced

reactivity, reduced stress and reduced parental preoccupation or negative bias. Thus with less stress and negative preoccupation the parent gains more space and time to attune to their personal and infant's needs. Finally, improved marital functioning and co-parenting are suggested to be mechanisms which benefit parenting (Bögels et al., 2010; Duncan et al., 2009), which links to the second superordinate theme.

2.5.2 Greater connectedness and attunement

Participants experienced a deep connection to other group members which could potentially reduce the risk of postnatal depression by increasing social support (Bardacke & Duncan, 2014). Within the context of the couple relationship, participants communicated an intention to listen non-judgementally to their partner, which appeared to facilitate an increase in empathic understanding, trust and intimacy to communicate their thoughts and feelings. This reflects the work of Siegel (2009), who reported that mindfulness meditation influences the same parts of the brain as those involved in developing secure attachments and empathy by attuning to the other person. This communication seemed to support their ability to resolve conflict and work together as parents which resulted in a strengthening of the couple relationship. This is in keeping with the work of Carson and colleagues (2004), who found that couples who attended the Mindfulness-Based Relationship Enhancement group experienced greater relationship satisfaction, acceptance, closeness and relatedness than prior to the group. Interestingly, this theme was only present for one of the two participants who attended MBCP without their

partner. What cannot be concluded within this study is whether these experiences would extend within family relationships if only one parent attended the MBCP group, compared with both parents.

Other accounts demonstrated a greater empathy on behalf of the participants for their infant's perspective which was demonstrated within the 'parent-infant attunement'. The findings offer support to Siegel's (2009) work and Duncan and colleagues' (2009) principles of 'listening with full intention', 'non-judgemental acceptance of self and child' and 'compassion for self and child'.

Within this theme there was a sense that parents and their infants had a somewhat reciprocal sense of attunement. Simultaneously, parents also became aware of their own emotional response to their infant's distress within the moment. It seemed that participants used mindfulness to slow and calm their own emotional responses which appeared to 'transmit' to their infant. Participants reflected an empathic and accepting stance to their infant's distress and communicated an attunement to meeting their perceived needs. This is in line with Siegel and Hartzwell (2014),

When a parent's initial response is to be *attuned* to his child, the child feels understood and connected to the parent. Attuned communications give the child the ability to achieve an internal sense of *balance* and supports her in regulating her bodily states and later her emotions and states of mind with flexibility and equilibrium.

(Siegel & Hartzwell, 2014, Chapter 5, para. 10)

2.5.3 Methodological considerations

IPA was deemed an appropriate methodology since the interviews produced rich, in-depth data of individual's experiences, analysis of which revealed a number of themes shared by participants. In addition, there was evidence of similarities, differences, convergence and divergence among participants' accounts. One participant presented as a potential outlier to this study. For example, the participant requested more specific questions opposed to the open questions asked, which resulted in a shorter interview. As a result the data did not feel like it provided as much depth into this individual's experience. However, this participant was not excluded from the analysis because the first superordinate theme was present within her narrative and it demonstrated differences between participants.

Another methodological consideration is that the author is likely to have shared similar experiences to the participants due to becoming a parent through the study. The author reflected through the research process how her subjectivity may have influenced the findings which is discussed in Chapter 3.

2.5.4 Limitations and recommendations for future research

The author notes that caution must be taken when drawing wider conclusions of theoretical generalisability from this study due to the limited sample size. However it is argued that the idiosyncratic nature of the ten interviews produced rich and in-depth data, analysis of which resulted in themes shared by

participants, and so it could be argued that the results are transferable to other people's experiences. The proportions of mothers to fathers were similar to the attendance across both groups, however they were not similar in numbers and therefore it could be argued that the group was not as homogeneous as hoped and so reduce the rigor of the study (Yardley, 2008). It is plausible that if mothers or fathers had been interviewed as two separate homogeneous groups, that this could have elicited some additional different themes. For instance three of the mothers discussed changes to self-identity, whereas fathers discussed re-prioritising as a common change. Therefore future research could consider analysing qualitative interviews using mothers and fathers/birth partners as separate groups.

It is possible that this sample is biased for several reasons. Firstly, the subgroup of participants who volunteered for this study could be more motivated because they were still practicing mindfulness or found MBCP most useful. In addition the majority had previous experience of at least one form of meditation, mindfulness or yoga. Secondly, some participants showed their motivation to enhance their experience of pregnancy and parenthood by attending more than one antenatal intervention. Thirdly, the samples were of high socioeconomic status and in couple relationships, which serve as protective factors during the perinatal period (Fisher et al., 2012). This bias is to be expected because the research for mindfulness based interventions during pregnancy is in its infancy within the UK (Warriner et al., 2013).

In future, it would be useful to incorporate purposive sampling in order to recruit participants from a broad range of backgrounds, including different age groups and at risk groups, in order to understand the applicability of mindfulness during the perinatal period. It would also be useful to interview participants who have completed shorter mindfulness-based interventions in order to understand their experiences of mindfulness in the early parenting period.

Further research is also required to test Duncan and Bardacke's (2010) hypothesis that MBCP could offer a preventative approach to parental mental health and improve child development outcomes by it being offered during the antenatal period. This would ideally involve using mixed methodologies by recruiting larger samples, within randomised control conditions against an active control group, in addition to long-term follow up of parents and children on clinical outcomes and qualitative reports.

2.5.5 Implications for clinical practice

One of the aims of MBCP is to develop a sense of community between the group members, in order to promote social support in the postnatal period as a protective factor to postnatal illness (Duncan & Bardacke, 2010). These participants did not meet regularly post group due to living in different locations, however over half reported maintaining contact with at least one couple. Consequently, they still recounted a sense of cohesion and trusting relationships within the group. This contrasted with on-going contact between

group members from Duncan and Bardacke's (2010) study whereby participants lived closer together. Therefore in future it would be recommended to hold MBCP groups in local centres in order to encourage on-going social support. However if geographical barriers persist, it would be worth considering innovative ways of developing support networks in widespread communities such as using social networking or quarterly meetings.

The two participants who had experienced the death of their first baby appeared to benefit from MBCP as an alternative to the National Childbirth Trust (NCT) antenatal group (attended during their first pregnancy). Parents in this study reported gains in their emotion regulation, which is in keeping with findings that MBCP skills can reduce anxiety (Duncan & Bardacke, 2010), depression and increased childbirth self-efficacy (Duncan et al., 2014). Therefore, mindfulness could offer a skills-based approach for parents who may be at greater risk of anxiety during pregnancy, after a previous traumatic birth experience.

Over half of the parents had attended either the NHS or NCT antenatal classes either during a previous pregnancy or in addition to MBCP. Interestingly, participants seemed to reflect a categorical distinction between the former classes as having a 'practical' focus versus MBCP as having an 'emotional' focus. This could possibly contribute to the experience of a greater sense of connection and depth within relationships after MBCP. It would be beneficial to compare the experiences of mothers and fathers (or birth partners) from

traditional antenatal courses versus mindfulness-based antenatal interventions. Gaining a better understanding of the similarities and differences between groups on experiences of parenting and emotional well-being during the perinatal period, could offer useful information in how to adapt existing wide-reaching antenatal interventions within the NHS and private sector.

2.5.6 Conclusion

This follow-up study lends qualitative support to the body of quantitative research that mindfulness is a promising antenatal intervention for ‘parents to be’. The qualitative findings from this study support the assumptions of the MBCP programme, that mindfulness practice in the antenatal period can endure as a life skill into parenting and benefit parental emotion regulation and the parent-infant relationship (Duncan & Bardacke, 2010), which is known to benefit child development (McMillan et al., 2009). As pregnancy offers a window of opportunity where women and their partners may be more motivated to seek support, then future research is needed to assess the feasibility and acceptability of mindfulness interventions for a broader range of ‘in need’ groups within the NHS.

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CHAPTER 3: REFLECTIVE PAPER

Becoming a mother:

**My lived experience and study of pregnancy, childbirth and
parenting.**

Overall chapter word count (excluding references): 2,684

3.1 Introduction

This paper provides a reflective account of some of my experiences through the research process within the context of my training on the Clinical Doctorate Programme. It will provide a reflective account of my research journey over the past 4 years whilst considering my personal and epistemological reflexivity (Willig, 2008). I will explain how my epistemological position has evolved over time. The greatest emphasis will be on my empirical paper, which involved interviewing ten parents about their experiences of mindfulness during the first year of their child's life. During the study, I was very fortunate to fall pregnant and give birth to our daughter and the research journey has reflected many parallels of my experience of practicing mindfulness during pregnancy, childbirth and parenting.

3.2 Reflexivity

Whilst writing my reflective journal to contribute to this chapter I was mindful of Willig's (2008) definitions of personal versus epistemological reflexivity. Willig (2008) describes "personal reflexivity involves reflecting upon ways in which our own values, experiences, interests, beliefs, political commitments, wider aims in life and social identities have shaped the research" (p.10). Willig (2008) believes that "epistemological reflexivity encourages us to reflect upon the assumptions (about the world, about knowledge) that we have made in the course of research, and it helps us to think about the implications of such assumptions for the research and its findings" (Willig, 2008, p.10). Additionally Willig (2008) highlights that the research process itself may influence or change

the researcher as a person or academic in some way. During the research process I kept a research journal to capture my changing assumptions and reflections throughout.

3.2.1 Epistemological reflexivity

Studying on the clinical doctorate has opened my eyes and experiences to different epistemological positions. In my previous roles, there was a large emphasis on using evidence-based interventions which were recommended by the government guidelines. The research was nearly always based on quantitative findings and perhaps in my naivety I accepted this as the objective truth. However as I gained more experience in clinical practice I became aware that one of the challenges of using outcome measures was that they did not always reflect the experience of the individual. As my work experience has accumulated in various different settings, I have become increasingly eager to understand more about how the individual makes sense of their experience. This seems to be more in line with 'interpretivism' or 'constructivism' whereby experience or knowledge is viewed as being constructed by the individual.

Whilst reading on epistemological positions, I was drawn into thinking that I should fit into one or another. However, after reflecting upon my journey through this research I can conclude that my epistemological position is not fixed to preferring qualitative or quantitative methodologies. Although I have a leaning towards the constructivist approach, I would describe myself as having a 'mixed' epistemological position which moves according to the research

question I want to investigate. This is reflected in Chapter 1 whereby I wanted to incorporate both quantitative and qualitative findings to investigate the research aims. I do not believe that I will ever be 100% positivist because I will always be curious to understand the experiences behind the numbers. I believe that both numbers and stories can be integrated in order to provide a broader understanding of experience and knowledge (Pluye & Hong, 2014) and hope that we see more of this in future literature.

When I initially reviewed the literature in 2012, there was a small body of research which focussed exclusively on quantitative (feasibility) studies on investigating whether mindfulness could benefit pregnant women. After contacting my clinical supervisor to find out more about the Mindfulness-Based Childbirth and Parenting (MBCP) programme in the UK, I quickly came to see a unique gap in the literature to develop our understanding of how parents experience the early parenting period after completing the MBCP programme, which became the focus of Chapter 2. Parenting is a life-long commitment, so it seemed important to explore a longer follow-up time period, since few studies reported follow-up outcomes beyond the first couple of months into parenthood, as discussed in Chapter 1.

For the empirical study, my epistemological position was more in line with 'constructivism' whereby I was interested to know how parents experienced that first year of parenting after their child was born. This perspective informed my choice of using IPA, because it provided me with a way to explore a rich, in-

depth understanding of the individual's experience, whilst also acknowledging the similarities and differences between participants. This was opposed to Grounded Theory which aims to construct a universal theory from the shared experiences of a group.

3.2.2 Personal reflexivity

Mindfulness was an obvious choice for me when choosing an area to study for this thesis, since I had been practicing mindfulness after completing the Mindfulness Based Cognitive Therapy programme for a couple of years. However I was aware that there was a mindfulness literature 'boom' and many areas had been explored.

My interest in mindfulness and the perinatal period was initiated when I suggested some mindfulness exercises to my friend who was experiencing anxiety following a scare at the beginning of her pregnancy. Focusing on the present and learning to detach from thoughts gave her some relief from her anxieties and I wondered whether mindfulness had been explored during pregnancy. This spurred my interest to investigate whether mindfulness antenatal interventions could help women in terms of maternal anxiety (Chapter 1). At the stage of devising my research proposal for the empirical paper I was not planning for a baby, but it was a future consideration. My beliefs about becoming a parent were constructed somewhat from friends' experiences who had found the transition into parenthood really challenging with the sleepless nights and responsibility of a new born. I wondered how I

would cope with the demands of an infant and was eager to gather more information that might prepare me for parenthood. I was curious to know more about parents' experiences of mindfulness during early parenting after completing MBCP, since I had maintained my own mindfulness practice after completing MBCT.

3.3 Parallels of life and research – my lived experience

Throughout the research process I was increasingly aware of parallels between my research and my experience of pregnancy, childbirth and parenting. My knowledge of qualitative methodologies was limited when I started the doctorate. So, when I decided to use IPA I felt like I was jumping 'into the unknown', which was how I felt when I became pregnant. I could not remember my friends talking about their experiences of the first trimester as they all announced their news after this time. Pregnancy affected me physically and emotionally in ways that I had not anticipated, such as feeling physically anxious, faint or light-headed which triggered anxious thoughts. I experienced somewhat of a 'waiting game' during the first trimester. I was nervously and excitedly waiting for our 12 week scan, alongside waiting for ethical approval and then for my participants to opt in. This time of uncertainty was quite difficult for me to tolerate even though I practiced hard to let go of what I could not control. I learnt that I wanted to be in control more than I had recognised in the past and worked to accept this, rather than criticise myself.

In the second and third trimester, the anxiety reduced and my confidence increased. This could have been due to my efforts in attending antenatal yoga classes, practicing mindfulness regularly (Bardacke, 2012) and physiological changes of pregnancy. My experience of labour was long and painful but bearable. This matched my experience at the beginning of the data analysis. After the satisfaction of completing the interviews, the transcription and reading, re-reading and coding felt painful and slow at times. My experience of 'pain' increased following birth when I struggled to initiate breastfeeding, which seemed to mirror my experience of interpretation. Both of these phases took a longer to achieve than I ever anticipated. I found that I was constantly going round in circles questioning how themes fitted or did not fit together. I really struggled to let go of themes, because I wanted to ensure that all the voices were heard within the narrative and to maintain sensitivity to the data (Yardley, 2008). Furthermore at times I felt reluctant to move from the descriptive to the interpretative for fear that I may lose the voices of the participants (Willig, 2012). To summarise, Smith, Flowers and Larkin (2009) describe this process as the hermeneutic circle; "To understand any given part, you look to the whole; to understand the whole, you look to the parts" (p.28). To my surprise, this iterative process of moving back and forth between the data and themes continued into the write up. It was hard work and tiring but ultimately rewarding once the final chapter was written. This shares similarities with parenting, which for me is the hardest, most tiring yet most rewarding job.

After returning from maternity leave I felt even closer to the data because I had tried to incorporate mindfulness into my own parenting. Through my quality control procedures I learnt that I had previously assumed that the parents within the study would develop their communication skills. This assumption was evident within the data, but what emerged beyond my original assumption was the sense of connection between the couples, even after going through some challenging times. During the interpretation phase, I was mindful to bracket my personal experiences and assumptions as best I could. Despite this, I believe that my experiences served to enhance the interpretation and gave the findings greater transferability to the reader.

3.4 From clinician to researcher

My epistemological position was to understand the 'story' behind the numbers. In IPA, the "researcher expert may meet experiential expert" (Smith, Flowers & Larkin, 2009, p.180). When I first read that, I interpreted it in line with my clinician stance that the patient is their own life expert. However during the interviews, the different power-structure between researcher and participant compared with clinician and patient became more apparent. For example, the second participant I interviewed did not appear to feel comfortable to answer my open questions and often asked for more specific questions. I recall worrying that this was not in line with IPA and that I had naively expected participants to be ready with all their experiences and stories for me. Thus the power shifted full throttle into her position and I felt somewhat flustered by the end, because I did not feel that I had gathered a full understanding of her

experience and the interview was half the duration of the first. This experience knocked my confidence and made me question my interview structure. Thankfully through supervision I was able to reflect that it could have been due to other factors including attachment-style or personality characteristics of the participant.

I believe that my clinician skills enhanced the sensitivity to context and commitment and rigor (Yardley, 2008). This was because I was able to put most participants at ease on meeting them. I clearly informed them of my interest in their personal experience and that I would only use the interview as a guide. I covered this both before and at the start of recording the interview. I felt skilled enough to raise sensitive issues and sit with emotional distress within interviews without finding it too uncomfortable, which could be difficult for a researcher with less exposure to human distress.

What did surprise me within the researcher's role was how I developed a strong connection and relational attachment to my participants, considering I only met with them for one hour and had brief email contact afterwards. This challenged my initial assumption that I could completely 'bracket off' and detach myself from the participant's experience within qualitative research (Ahern, 1999). This contrasted with my experience of quantitative research whereby working with numbers seemed to create a distance from the person completing the questionnaire. Writing up the research paper required me to think about my participants on a regular basis and they have filtered into my personal

experiences both during childbirth and in parenting. From time to time when I am experiencing a rewarding or challenging moment with my baby, examples of participants' experiences will come to mind, such as paying attention to my baby playing or to engage in mindful walking if she is in distress.

3.5 Lost themes

One emergent theme prevalent for three participants but not universal across the whole group was that of 'loss'. This was a very powerful theme which I struggled to let go within the IPA analysis. From the demographic forms that were returned to me prior to interviewing the participants I was aware of one mother whose baby had died. As this interview progressed I became very aware that she had not brought this information about her first baby into the discussion. This contrasted with a previous interview where the mother talked about the death of her first baby within the first few minutes (but had not informed me on the demographic form). I became very aware that I was finding it hard to follow the participant's narrative because I was so aware of this information and loss in her life. It felt like 'the elephant in the room'. Internally I questioned whether I should acknowledge this information, because ethically I did not know what emotions could arise for this participant and did not want to evoke harm. However, I was confident in my clinical skills that I could contain a distressing situation if it arose and decided to take the risk. I sensitively referred back to the demographic form and asked her whether she felt it would be important to talk or not talk about her baby, as I did not want her to feel that her baby had been forgotten on my part. The participant became tearful but felt

relieved that I had mentioned her baby and I did not feel like it detracted from the experiences she was discussing in the interview. On reflection, I should not have assumed that this participant would have been forthcoming like the previous mother. It would have perhaps been more helpful to discuss this as a possibility prior to recording the interview. I have learnt to be more aware of managing sensitive issues in future research situations.

After talking to these women who had lost their babies, I wanted to ensure that the babies who died were respected and included within the method section (Chapter 2, Table 1). Both participants described how it can be difficult to answer people when they are asked about the number of children they have. Despite the risks of losing my baby feeling more real than ever after hearing these stories, these women gave me more hope than anxiety. I felt empowered by their courage to have more children. At the same time I experienced tears of sadness for their trauma and loss during the analysis phase. Perhaps these participants will forget they engaged in their interview with me and what they may never know is how they enhanced me on a personal level as I became a parent. They strengthened my ability to cope during some of the most challenging and tiring times of my life so far, and their stories reminded me to appreciate and capture the gifts that my baby offers me every day. This study has made me aware of the potential benefits that mindfulness could offer parents who have experienced traumatic births.

3.6 Conclusions

Juggling parenting, employment and study has been challenging and emotional, but ultimately a rewarding experience. I feel very privileged to have undertaken this research and to have had this unique opportunity prior to embarking on my own journey into motherhood. I experienced a deep connection to the participants within this study and hope to publish this study in order to give voice to their experiences. Furthermore I hope to use this new found understanding and knowledge in supporting couples and families on my next placement in perinatal psychology and within my future career as a Clinical Psychologist.

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APPENDIX 1. Quality assessment framework, adapted from Caldwell et al., (2010) and Pluye et al., (2011).

Quality criteria For all studies	Yes or N/A	Partially	No	Can't tell
1. Does the title reflect the content?				
2. Are the authors credible?				
3. Does the abstract summarise the key components?				
4. Is the rationale for undertaking the research clearly outlined?				
5. Is the literature review comprehensive and up to date?				
6. Is the aim of the research clearly stated?				
7. Are the ethical issues identified and addressed?				
8. Is the methodology identified and justified?				
9. Are the results presented in a way that is appropriate and clear?				
10. Is the discussion comprehensive?				
11. Is the conclusion comprehensive?				
MIXED METHODS DESIGN; answer the questions below and both the qualitative/quantitative questions below.	Yes or N/A	Partially	No	Can't tell
12. Is the mixed methods research design relevant to address the qualitative and quantitative research questions (or objectives), or the qualitative and quantitative aspects of the mixed methods question (or objective)?				
13. Is the integration of qualitative and quantitative data (or results) relevant to address the research question (objective)?				
14. Is appropriate consideration given to the limitations associated with this integration, e.g., the divergence of qualitative and quantitative data (or results)?				
QUANTITATIVE studies	Yes or N/A	Partially	No	Can't tell
15. Is the study design clearly identified? Is the rationale for choice of design evident?				
16. Is there an experiential hypothesis clearly stated? Are the key variables clearly defined?				
17. Is the population identified?				
18. Is the sample adequately described and reflective of the population?				
19. Is there a control group? Are samples matched? (Score partially if not matched)				
20. Is the method of data collection valid and reliable?				
21. Is the method of data analysis valid and reliable?				

22. Are the results generalizable?				
QUALITATIVE studies	Yes or N/A	Partially	No	Can't tell
23. Are the philosophical background and the study design clearly identified? Is the rationale for choice of design clear evident?				
24. Are the major concepts identified?				
25. Is the context of the study outlined?				
26. Is the selection of the participants described and the sampling method identified?				
27. Is the method of data collection auditable and relevant to address the research question?				
28. Is the method of data analysis credible, confirmable and relevant to address the research question?				
29. Is appropriate consideration given to how the findings relate to the researcher's influence?				
30. Are the results transferable?				
Raw score and Percentage:				

Scoring:

Yes	= 2
Partially	= 1
No	= 0
Can't tell	= 0
N/A	is not included within the final possible total.

For example, if a mixed method paper is scored against all 30 items then the total possible score will be 60 = 100%. If 5 items are N/A then the total possible score will be 25 x 2 = 50 = 100%, therefore if a study scored a raw score of 40/50 the percentage score will be 80%. The percentage score will be reported in the data synthesis table in the main report.

Qualitative and quantitative studies were scored on the generic items (questions 1-11) and the methodology specific items (questions 15-22 or questions 23-30), leading to a total score of 38.

Appendix 2. Data extraction proforma

Study authors, date		Aims	
Design		Measures	
Sample description (number, size, antenatal, postnatal)		Statistics used	
Intervention description (number of sessions, length, homework)		Key findings	
Retention/attri tion rate		Limitations	

APPENDIX 3. Quality assessment grid of included studies

	Barber et al., (2013)	Beddoe et al., (2009)	Byrne et al., (2014)	Duncan & Bardacke (2010)	Dunn et al., (2012)	Fisher et al., (2012)	Gambrel & Piercy (2015)
1. Title reflect study	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Authors credible	Yes	Yes	Yes	Yes	Partially	Yes	Yes
3. Abstract summarise key components	Yes	Yes	Yes	Yes	Partially	Yes	Partially
4. Clear rationale	Yes	Yes	Yes	Yes	Yes	No	Yes
5. Comprehensive literature review	Partially	Yes	Partially	Yes	Partially	Partially	Yes
6. Clear aims	Yes	Yes	Yes	Yes	Yes	Partially	Yes
7. Ethical issues identified & addressed?	Yes	Yes	Partially	Yes	Yes	Partially	No
8. Methodology identified & justified?	Yes	Yes	Yes	Yes	Partially	Yes	Partially
9. Results presented clearly?	Partially	Yes	Yes	Yes	Yes	Yes	Yes
10. Discussion comprehensive?	Partially	Yes	Yes	Yes	Yes	Yes	Yes
11. Conclusion comprehensive?	Partially	Yes	Yes	Yes	Yes	Yes	Yes
12. Research design address questions?	N/A	N/A	N/A	Yes	Partially	N/A	N/A
13. Integration of data/findings?	N/A	N/A	N/A	Yes	Partially	N/A	N/A
14. Limitations assoc. with integration?	N/A	N/A	N/A	No	No	N/A	N/A
15. Study design and rationale identified?	Yes	Partially	Yes	Partially	No	N/A	N/A
16. Experiential hypothesis and variables?	No	Yes	Yes	Yes	Yes	N/A	N/A
17. Population identified?	Yes	Yes	Yes	Yes	Yes	N/A	N/A
18. Sample described & reflect population?	Partially	Partially	Partially	Partially	Partially	N/A	N/A
19. Control group? Matched?	No	No	No	No	Partially	N/A	N/A
20. Data collection valid and reliable?	Partially	Yes	Can't tell	Yes	Can't tell	N/A	N/A
21. Data analysis valid and reliable?	Yes	Yes	Yes	Yes	Yes	N/A	N/A
22. Results generalizable?	No	No	No	No	No	N/A	N/A
23. Philosophical background, design & rationale?	N/A	N/A	N/A	No	No	Partially	Yes
24. Major concepts identified?	N/A	N/A	N/A	Yes	Yes	Partially	Yes
25. Context of the study outlined?	N/A	N/A	N/A	Yes	Yes	Yes	Yes
26. Participant selection/sampling?	N/A	N/A	N/A	Yes	Partially	Yes	Yes
27. Data collection auditable and relevant?	N/A	N/A	N/A	Partially	Partially	Yes	Yes
28. Data analysis credible, confirmable?	N/A	N/A	N/A	Partially	Can't tell	Yes	Yes
29. Findings relate to the researcher's influence?	N/A	N/A	N/A	No	No	No	Yes
30. Are the results transferable?	N/A	N/A	N/A	Partially	Partially	Yes	Yes
Total (percentage)	26/38 (68%)	32/38 (84%)	29/38 (76%)	45/60 (75%)	35/60 (58%)	29/38 (76%)	34/38 (89%)

	Goodman et al., (2014)	Guardino et al., (2014)	Perez-Blasco et al., (2013)	Vieten & Astin (2008)	Warriner et al., (2012)	Woolhouse et al., (2014)	Zhang & Emory (2014)
1. Title reflect study	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Authors credible	Yes	Yes	Yes	Partially	Yes	Yes	Yes
3. Abstract summarise key components	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Clear rationale	Yes	Yes	Yes	Yes	Partially	Yes	Yes
5. Comprehensive literature review	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6. Clear aims	Yes	Yes	Yes	Yes	Partially	Yes	Yes
7. Ethical issues identified & addressed?	Yes	Partially	Partially	Partially	No	Yes	No
8. Methodology identified & justified?	Partially	Yes	Yes	Partially	No	Yes	Yes
9. Results presented clearly?	Yes	Yes	Yes	Partially	Yes	Yes	Partially
10. Discussion comprehensive?	Yes	Yes	Yes	Yes	No	Yes	Yes
11. Conclusion comprehensive?	Yes	Yes	Yes	Yes	Partially	Yes	Yes
12. Research design address questions?	Partially	N/A	N/A	N/A	Partially	Partially	N/A
13. Integration of data/findings?	Yes	N/A	N/A	N/A	Can't tell	Partially	N/A
14. Limitations assoc. with integration?	No	N/A	N/A	N/A	No	Partially	N/A
15. Study design and rationale identified?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16. Experiential hypothesis and variables?	Yes	Yes	Yes	Yes	N/A	No	Yes
17. Population identified?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18. Sample described & reflect population?	Partially	Partially	Partially	Partially	Partially	Partially	Yes
19. Control group? Matched?	No	Yes	Yes	Partially	No	Yes	Yes
20. Data collection valid and reliable?	Yes	Partially	Yes	Yes	Can't tell	Partially	Partially
21. Data analysis valid and reliable?	Yes	Yes	Yes	Yes	Partially	Yes	Partially
22. Results generalizable?	No	No	No	No	No	No	No
23. Philosophical background, design & rationale?	Yes	N/A	N/A	N/A	Can't tell	Yes	N/A
24. Major concepts identified?	Yes	N/A	N/A	N/A	Can't tell	Yes	N/A
25. Context of the study outlined?	Yes	N/A	N/A	N/A	Yes	Yes	N/A
26. Participant selection/sampling?	Yes	N/A	N/A	N/A	Yes	Yes	N/A
27. Data collection auditable and relevant?	Yes	N/A	N/A	N/A	Yes	Yes	N/A
28. Data analysis credible, confirmable?	Yes	N/A	N/A	N/A	Can't tell	Partially	N/A
29. Findings relate to the researcher's influence?	No	N/A	N/A	N/A	Can't tell	No	N/A
30. Are the results transferable?	Partially	N/A	N/A	N/A	Partially	Yes	N/A
Total (percentage)	48/60 (80%)	33/38 (87%)	34/38 (89%)	30/38 (79%)	27/58 (47%)	48/60 (75%)	31/38 (82%)

APPENDIX 4

Table 1. Baseline to post intervention measures of anxiety

Study	Measure	Sample (N)	Baseline measure		Post measure		Significance	Effect size Cohen’s <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention group									
Byrne et al., (2013)	DASS-21	12	8.33	7.57	6.00	7.53	<i>p</i> =.605	0.48*	medium
Goodman et al., (2014)	BAI	23	12.13	8.56	6.35	4.95	<i>p</i> <0.001	0.83	large
Guardino et al., (2014)	STAI	20	45.69	7.64	39.47	6.27	nr**	0.88	large
Perez-Blasco et al., (2013)	DASS-21	13	7.08	7.19	2.46	3.38	<i>p</i> =.012 (between groups)	0.82	large
Vieten & Astin (2008)***	STAI - S	13	43.8	12.4	35.4	9.1	<i>p</i> =.04 (between groups)	0.77	large
Woolhouse et al., (2014) non RCT	STAI - S	nr**	49.67	15.22	39.33	8.26	<i>p</i> =.04	0.8	large
Woolhouse et al., (2014) RCT	DASS-21	nr**	8.62	7.72	4.62	3.95	<i>p</i> =.02	0.7	medium
Control group									
Guardino et al., (2014)	STAI	20	44.37	10.98	37.35	11.51	nr**	0.63	medium
Perez-Blasco et al., (2013)	DASS-21	8	7.50	8.12	7.25	4.40	<i>p</i> =.012(between groups)	0.04	small
Vieten & Astin (2008)*	STAI - S	18	35.6	10.9	35.6	8.4	<i>p</i> =.04 (between groups)	0.00	small

* Reported by study author **nr = significance not reported in study for baseline to post-intervention analysis *** Authors' reported effect size $d = 0.85$

Table 2. Baseline to follow-up intervention measures of anxiety

Study	Measure	Sample (<i>N</i>)	Baseline measure		Post measure		Significance	Effect size Cohen's <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention groups									
Byrne et al., (2013)	DASS-21	16	9.50	7.75	3.00	4.73	<i>p</i> <0.001	1.046*	large
Guardino et al., (2014)	STAI	20	45.69	7.64	38.11	8.78	nr**	0.93	large
Control groups									
Guardino et al., (2014)	STAI	15	44.37	10.98	36.19	10.84	nr**	0.73	medium

* Reported by study author **nr = significance not reported in study for baseline to follow-up analysis

Table 3. Baseline to post intervention measures of pregnancy specific anxiety

Study	Measure	Sample (<i>N</i>)	Baseline measure		Post measure		<i>p</i> value	Effect size Cohen's <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention groups									
Byrne et al., (2013)	W-DEQ	12	61.42	13.62	38.92	14.84	<i>p</i> <0.001	1.71*	large
Duncan & Bardacke (2010)	PAS	27	2.49	0.58	2.09	0.41	<i>p</i> <.0001	0.81*	large
Guardino et al., (2014)	PRA	20	24.42	3.79	22.70	3.84	<i>p</i> <0.05	0.45	small
Guardino et al., (2014)	PSA	20	11.63	2.96	7.65	1.73	<i>p</i> <0.05	1.60	large
Control groups									
Guardino et al., (2014)	PRA	20	23.22	4.95	22.65	5.93	<i>p</i> >0.05	0.11	small
Guardino et al., (2014)	PSA	20	10.70	2.79	8.95	3.00	<i>p</i> <0.05	0.61	medium

* Reported by study author

Table 4. Baseline to follow-up intervention measures of pregnancy specific anxiety

Study	Measure	Sample (<i>N</i>)	Baseline measure		Post measure		<i>p</i> value	Effect size Cohen's <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention groups									
Byrne et al., (2013)	W-DEQ	16	64.75	13.47	41.63	22.44	<i>p</i> =0.043	1.29*	large
Guardino et al., (2014)	PRA	20	24.42	3.79	20.65	5.10	<i>p</i> <0.05	0.85	large
Guardino et al., (2014)	PSA	20	11.63	2.96	9.20	2.35	<i>p</i> <0.05	0.90	large
Control groups									
Guardino et al., (2014)	PRA	15	23.22	4.95	20.15	4.72	<i>p</i> <0.05	0.62	medium
Guardino et al., (2014)	PSA	15	10.70	2.79	9.00	2.23	<i>p</i> <0.05	0.64	medium

* Reported by study author

Table 5. Baseline to post intervention measures of stress

Study	Measure	Sample (<i>N</i>)	Baseline measure		Post measure		<i>p</i> value	Effect size Cohen's <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention group									
Byrne et al., (2013)	DASS-21	12	9.83	5.42	11.50	6.45	<i>p</i> =0.255	-0.20*	small
Duncan & Bardacke (2010)	PSS	27	26.41	6.73	24.11	4.99	<i>p</i> =0.062	0.40*	small
Guardino et al., (2014)	PSS	20	41.81	6.00	37.30	5.38	nr	0.79	large
Goodman et al., (2014)	PSWQ	23	59.30	8.92	50.48	10.23	<i>p</i> <0.001	0.92	large
Perez-Blasco et al., (2013)	DASS-21	13	18.31	4.31	9.54	6.44	<i>p</i> =0.006 between groups	1.60	large
Vieten & Astin (2008)***	PSS	13	20.1	5.1	15.9	5.7	<i>p</i> =0.35 between groups	0.78	medium
Control group									
Guardino et al., (2014) control	PSS	20	39.91	8.55	35.80	8.01	nr**	0.49	medium
Perez-Blasco et al., (2013)	DASS-21	8	17.75	7.44	18.00	8.14	<i>p</i> =0.006 between groups	-0.03	small
Vieten & Astin (2008)	PSS	18	17.1	5.0	16.9	4.6	<i>p</i> =0.35 between groups	0.04	small

* Reported by study author **nr = significance not reported in study for baseline to post-intervention analysis ***The authors reported effect size *d* = 0.39

Table 6. Baseline to follow-up measures of stress

Study	Measure	Sample (<i>N</i>)	Baseline measure		Post measure		<i>p</i> value	Effect size Cohen's <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention group									
Byrne et al., (2013)	DASS-21	16	9.50	7.75	3.00	4.73	<i>p</i> <0.001	1.046*	large
Guardino et al., (2014)	PSS	20	41.81	6.00	36.17	5.90	nr**	0.95	large
Control group									
Guardino et al., (2014)	PSS	15	39.91	8.55	37.42	7.27	nr**	0.30	small

* Reported by study author nr** = significance not reported in study for baseline to post-intervention analysis

Table 7. Baseline to post intervention measures of self-efficacy

Study	Measure	Sample (N)	Baseline measure		Post measure		p value	Effect size Cohen's d	Magnitude of effect
			M	SD	M	SD			
Intervention group									
Byrne et al., (2013)	CBSEI	12	171.69	42.10	224.54	25.88	p<0.001	-1.91*	large
Perez-Blasco et al., (2013)	PES	13	78.85	9.00	88.92	6.71	p=0.004 between groups	-1.27	large
Control group									
Perez-Blasco et al., (2013)	PES	8	74.13	9.13	75.00	10.72	p=0.004 between groups	-0.09	small

* Reported by study author

Table 8. Baseline to post intervention measures of mindfulness

Study	Measure	Sample (<i>N</i>)	Baseline measure		Post measure		<i>p</i> value	Effect size Cohen's <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention group									
Byrne et al., (2013)	MAAS	12	4.04	0.84	4.47	0.51	0.058	-0.52*	medium
Duncan & Bardacke (2010)	FFMQ	27	3.14	0.44	3.44	0.38	<0.0001	-0.74*	medium
Goodman et al., (2014)	MAAS	23	51.04	9.50	54.87	10.62	0.019	-0.38	small
Guardino et al., (2014)	FFMQ	20	119.64	13.04	134.24	15.48	nr**	-1.03	large
Vieten & Astin (2008)***	MAAS	13	3.6	0.76	3.8	0.82	0.11 between groups	-0.25	small
Control group									
Guardino et al., (2014)	FFMQ	20	123.61	16.41	134.66	20.17	nr**	-0.61	medium
Vieten & Astin (2008)	MAAS	18	3.8	0.57	3.6	0.72	0.11 between groups	0.31	small

*Reported by study author nr** = significance not reported in study for baseline to post-intervention analysis *** The authors reported effect size $d=0.68$

Table 9. Baseline to follow up measures of mindfulness

Study	Measure	Sample (<i>N</i>)	Baseline measure		Post measure		<i>p</i> value	Effect size Cohen's <i>d</i>	Magnitude of effect
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Intervention group									
Byrne et al., (2013)	MAAS	16	4.03	0.84	4.63	0.71	0.020	-0.80*	large
Guardino et al., (2014)	FFMQ	20	119.64	13.04	132.68	16.58	nr**	-0.88	large
Control group									
Guardino et al., (2014)	FFMQ	15	123.61	16.41	136.73	23.00	nr**	-0.67	medium

* Reported by study author **nr = significance not reported in study for baseline to follow-up analysis

Appendix 5



Prof Jane Coad
Tel: (024) 7679 5831
Email: ethics.hls@coventry.ac.uk

19 March 2013

Dear Sir/Madam

Re: Ethical Approval – P10250

I am writing to confirm that Amber Sedgfield has received ethical approval for the research project title:

Participant experiences of parenting and emotion regulation at one year follow up after attending the Mindfulness-Based Childbirth and Parenting (MBCP) programme; a qualitative study.

The research project addresses the main ethical issues appropriately and has been approved by a member of the ethics committee at Coventry University.

If you have any further queries please do not hesitate to contact me.

Yours sincerely

A handwritten signature in black ink, appearing to read "Jane Coad".

Professor Jane Coad

Appendix 6

MEDICAL SCIENCES INTER DIVISIONAL RESEARCH ETHICS COMMITTEE Medical Sciences Divisional Office

University of Oxford, Level 3, John Radcliffe Hospital, Headington, Oxford, OX3 9DU
Tel: +44(0)1865 228974 Fax: +44(0)1865 750750
ethics@medsci.ox.ac.uk <http://www.medsci.ox.ac.uk>



CONFIDENTIAL

Ref: MSD-IDREC-C1-2013-079

16th May 2013

Ms Amber Sedgfield
Clinical Psychology Doctorate Programme
Universities of Coventry & Warwick
Coventry University
James Starley Building
Priory Street
Coventry
CV1 5FB

Dear Ms Sedgfield

I am writing to acknowledge receipt of your CUREC/1 form for your project: **Participant experiences of parenting and emotion regulation at one year follow up after attending the Mindfulness-Based Childbirth and Parenting (MBCP) programme; a qualitative study**

On the basis of the information you have provided this has now been approved by the Medical Sciences IDREC **subject to:**

- a) your agreeing to follow protocol MSD/IDREC/2006/P4.1
- b) it is your responsibility to comply with the requirements for administering any tests or questionnaires and if in doubt to contact the publisher of those tests or questionnaires.

The reference number for this project is **MSD-IDREC-C1-2013-079** and may I remind you that your project may be reviewed at some stage during an annual audit of projects.

Amendments

Should you at some stage alter some of the techniques or procedures then you should first undertake a checklist (CUREC/1) to see whether these changes alter the ethics of the research. If these remain the same then the committee will require notification of the changes to lodge with the project. If they do not remain the same then you may need to complete a CUREC/2 form and undergo further scrutiny by the committee.

Please do not hesitate to contact me if you have any queries about this.

Yours sincerely

A handwritten signature in purple ink that reads 'Rosie Mortimer'.

Rosie Mortimer
Senior Assistant Registrar & Secretary to IDREC

Appendix 7



Sian Warriner
Level 7
Women's Centre
John Radcliffe Hospital
Headley Way
Headington
OXFORD
OX3 9DU
Direct Line: 01865 851096
E mail: sian.warriner@ouh.nhs.uk

Invitation to participate in research following the Mindfulness-Based Childbirth and Parenting programme

Last year you attended one of the first two Mindfulness-Based Childbirth and Parenting programmes in Oxford between February and August 2012. I am writing to you because at that time you indicated that you would be happy to be contacted about future research studies.

Amber Sedgfield who is a Trainee Clinical Psychologist from Coventry and Warwick Universities is conducting a study which involves interviewing participants who attended the first two MBCP groups in 2012, approximately one year after completion. The aim of the study is to understand participant's experiences of mindfulness, parenting and managing emotions after completing the programme. This would involve one interview with Amber at your home, to minimise any inconvenience.

A Participant Information Sheet about the study is included for you to read before you decide whether or not to participate in the research. If you have any questions that are not answered within the information sheet then please do not hesitate to contact Amber by emailing sedgefia@uni.coventry.ac.uk.

Please note that your personal details have remained confidential and have not been passed to Amber. Only once you contact Amber about the study, will she become aware of your identity.

Please remember that participation is voluntary and it is entirely your choice, and you may choose not to participate. If you do decide to participate and complete an interview, you remain free to withdraw your data from the study until approximately two weeks after the interview has been completed. The study is open to 'both individuals' and couples who would like to participate, however each participant will be interviewed on an individual basis. If you would like to participate but your partner would prefer not too, then this would still enable you to be involved. Equally, if both you and your partner would like to participate, then it could be arranged with Amber to interview you both separately one after another.

If you would like to participate in this study, then please complete the reply slip and demographic form enclosed, and return it either by email to Amber, or within the self-addressed envelope provided by **Friday 12th July 2013**. On receipt of this information Amber will contact you via telephone or email to arrange the most convenient time for the interview. A final reminder email about this study will be sent in approximately two weeks time.

Thank you for taking time to read this information.

Yours sincerely,

Dr Sian Warriner
MBCP facilitator, Consultant Midwife

A handwritten signature in black ink that reads "Sian Warriner".

Enc: Participant information sheet, Reply slip, Demographic form, Self-addressed envelope

Appendix 8

Coventry University
Priory Street, Coventry CV1 5FB
Telephone 024 7688 8328
Fax 024 7688 8702

Programme Director
Doctorate Course in Clinical Psychology
Dr Eve Knight
BSc Clin.Psy.D. CPsychol

THE UNIVERSITY OF
WARWICK



PARTICIPANT INFORMATION SHEET

Study title:

Participant experiences of mindfulness, parenting and emotion regulation at one year follow up after attending the Mindfulness-Based Childbirth and Parenting (MBCP) programme; a qualitative study.

Name of Researcher: Amber Sedgfield

Status of researcher: Trainee Clinical Psychologist, Doctoral Student.

What is the purpose of the study?

The purpose of the study is to explore participants' experiences of mindfulness, parenting and managing emotions approximately one year after completing the MBCP programme. We hope participants will feel able to give an open and honest account of their experiences.

Why have I been chosen?

You have been chosen to participate within this study because you are one of a small group of people who completed the first two MBCP programmes in the UK. So far, there has not been any research following up parents' experiences after completing MBCP in the long-term. In addition the majority of the research in this area has recruited mothers and so this study aims to explore experiences of mothers, fathers and life partners who completed MBCP.

The study is open to both individuals' and couples who would like to participate, however each participant will be interviewed on an individual basis. If you would like to participate but your partner would prefer not too, then this would still enable you to be involved. Equally, if both you and your partner would like to participate then it could be arranged with Amber to interview you both separately one after another.

Interviews will remain confidential and will not be shared with your partner if you both choose to participate in the study.

Dean of Faculty of Health and Life Sciences
Dr Linda Merriman Mphil PhD DpodM CertEd Coventry University Priory Street Coventry CV1 5FB Tel 024 7679 5805

Head of Department of Psychology
Professor James Tresilian BSc PhD University of Warwick Coventry CV4 7AL Tel 024 7657 3009

www.coventry.ac.uk

What will happen to me if I take part?

The researcher (Amber Sedgfield) will arrange with you a convenient time to visit you at home to conduct the interview. The first part of the study will involve discussing the study and completing a consent form (up to 30 minutes) to ensure that you fully understand the research process and what will happen with the interview data. The interview with Amber will then last for approximately 1 hour depending on how much of your experience you feel comfortable sharing. This will involve asking you questions about your experiences of the MBCP group and your experiences of mindfulness, parenting and managing emotions. All interviews will be recorded using an audio digital recorder.

Following completion of the interview, it will be transcribed by the researcher, Amber. The researcher will offer you the opportunity to read the transcript. This will give you the opportunity to inform the researcher of any areas that you would prefer not to be quoted in the final report.

Do I have to take part?

No. Taking part in this research is completely voluntary.

If you change your mind about participation then you can leave the study at any time up until 2 weeks after taking part in the interview. You can do this by emailing the researcher (on sedgefia@uni.coventry.ac.uk) indicating that you wish to withdraw without providing any reason. If you decide to withdraw all your data will be destroyed and not used in the study. There will be no consequences to you for withdrawing from the study.

Will my taking part in this study be kept confidential?

All information about you that is collected during this study will be kept strictly confidential within the limits of the law. Confidentiality will be protected before and after the study by the following methods:

- All your confidential data will be assigned a fictitious (pseudonym) name when writing the project.
- Only authorised persons including the researcher, supervisory team and university authorities for audit purposes will be able to view identifiable data, to monitor that the research is being carried out correctly.
- No identifiable personal data will be kept by the researcher. Information will be kept in a secure and locked cupboard at Coventry University which will be separate from your interview data.
- The researcher will request some demographic information including your gender, age, marital status, employment status, number and ages of children etc.
- Once the study has finished, your data will be stored at Coventry University for 5 years on secure university premises and then destroyed following this period, in accordance with university policy.

Confidentiality would only be breached if you share information that indicates that you are at serious risk of harming yourself or others; or there are concerns for the neglect or abuse

of children. In these rare circumstances, the researcher would disclose to a third party/relevant agencies only the essential information to ensure the safety of the person at risk and would always aim to discuss all alternative options with the person in question first.

Interviews will remain confidential and will not be shared with your partner if you both choose to participate in the study.

What are the potential benefits?

At a personal level, you may find that the interview helps you to reflect on your experiences of mindfulness and parenting which could be beneficial and an enjoyable experience. By participating, you will be contributing to the first study in the UK on participants' experiences of mindfulness, parenting and managing emotions, one year after completing an MBCP program. Sharing such information will increase our understanding of participants' experiences of MBCP, which could lead to changes in developing the programme further.

What are the possible disadvantages and risks of taking part?

The interview will ask you about your experiences of mindfulness, parenting and managing emotions. This may feel quite personal and intimate and could elicit unpleasant or pleasant emotions. It is completely up to you how much you wish to disclose. You have the choice to only disclose what you feel comfortable with, and also you can withdraw at any point within 2 weeks after the interview.

Completing the consent form and interview with the researcher is anticipated to take approximately from 1.5 hours, which is a substantial commitment of your time. The interview data will be used for transcription, analysis and possible presentation and publication.

Due to the nature of the small sample to be approached for this study, it is not possible for the researcher to guarantee total anonymity. The final report may include quotes which will be labelled with the pseudonym name. These quotes could then be read by other people from the MBCP group who may be able to identify the person from the information provided in the quote. Therefore you will be given the opportunity to receive a copy of the transcript in order to identify any areas you would prefer not to be published as quotations. Despite this effort to protect anonymity, the researcher cannot guarantee that included quotations will get unrecognised by other participants.

What will happen to the transcripts and analysis?

Data will be transcribed onto a password protected computer and participants will be offered a copy of their transcribed interview, to identify any quotations that they would prefer not to be included within the written report. The research data will be analysed in accordance to the agreed research protocol. Quotations will all be anonymised using the pseudonym name to protect confidentiality as much as possible, however the researcher

cannot guarantee that other participants from the MBCP groups would not be able to identify the person.

What will happen to the results of this research study?

The research report will form part of the researcher's thesis towards completing the Doctorate in Clinical Psychology. A copy of the thesis will be held at Coventry University library. It is the researcher's intentions to submit the report to a peer reviewed journal, and if successful it will be published.

Who is organising and funding the research?

This research is being sponsored by Coventry University as part of the researcher's doctoral academic programme of study at Coventry and Warwick Universities. The research is being funded under the researcher's employment contract with the NHS.

Who has reviewed and approved this study?

This study has been reviewed and approved by the University Research Ethics Committees for Coventry University and University of Oxford.

What if there is a problem?

In the unlikely event that a problem arises during the course of your participation in this study, or if you have concerns about the conduct of the research or a complaint to make, please feel free to contact: Professor Ian Marshall in writing at the following address: AB124, Alan Berry Building, Coventry University, Priory Street, Coventry, CV1 5FB. Professor Marshall is independent of the research team and is responsible for overseeing research reviewed by the Coventry University Ethics Committee.

Contact for further information?

For further information or queries, or if you would like your data removed from the study, then please do not hesitate to contact;

Researcher: Amber Sedgfield (Trainee Clinical Psychologist, Doctoral Student)

Email: sedgefia@uni.coventry.ac.uk

You can also contact the academic supervisor Jo Kucharska (Clinical Psychologist) concerning questions about the research. Email: aa3539@coventry.ac.uk

Or you can contact Dr Sian Warriner, Consultant Midwife (on behalf of Dr Maret Dymond-Clinical Psychologist) about any clinical related issues. Email: Sian.Warriner@ouh.nhs.uk

**Thank you for taking the time to read this information sheet
and considering whether to take part in this research.**

*You will be given a copy of this information sheet and
a signed consent form to keep if you do take part.*

Appendix 9

Coventry University
Priority Street, Coventry CV1 5FB
Telephone 024 7688 8328
Fax 024 7688 8702

Programme Director
Doctorate Course in Clinical Psychology
Dr Eve Knight
BSc Clin.Psy.D. CPsychol

THE UNIVERSITY OF
WARWICK



CONSENT FORM

Study title:

Participant experiences of mindfulness, parenting and emotion regulation at one year follow up after attending the Mindfulness-Based Childbirth and Parenting (MBCP) programme; a qualitative study.

Purpose of study:

The purpose of this study is to interview participants' about their experiences of mindfulness, parenting, relationships and managing their emotions approximately one year after attending the MBCP programme. It is hoped that each participant can share an open and honest account of their individual experience.

Name of Researcher: Amber Sedgfield

Status of researcher: Trainee Clinical Psychologist, Doctoral Student.

Please initial box

1. I confirm that I have read and understand the Participant Information Sheet for this study. I can confirm that I have had enough time to consider the information and have had the opportunity to ask questions and that if I have asked questions, these have been answered satisfactorily. ☐
2. I understand that my participation is voluntary, that I am free to withdraw at any time, up until 2 weeks after the interview and that I do not need to provide a reason for doing so. I understand that if I do chose to withdraw that there will be no penalty in doing so and that my data will be destroyed. ☐
3. I consent to my interview being audiotaped and transcribed by the researcher Amber Sedgfield. ☐
4. I understand that relevant data collected during the study may be looked at by authorised persons including; the researcher, supervisory team at Coventry University and University of Oxford, and by university authorities for audit purposes, to monitor that the research is being carried out correctly. ☐

Dean of Faculty of Health and Life Sciences

Dr Linda Merriman Mphil PhD DpodM CertEd Coventry University Priority Street Coventry CV1 5FB Tel 024 7679 5805

Head of Department of Psychology

Professor James Tresilian BSc PhD University of Warwick Coventry CV4 7AL Tel 024 7657 3009

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Page 1 of 2

5. I understand that my data will be anonymised to protect my confidentiality. Interviews will remain confidential and will not be shared with my partner if both my partner and I participate. I understand that should I request a copy of the interview transcript, then I will be able to notify the researcher of any areas of the interview that I would not wish to be published in the final report. I understand that extracts of my interview could be included within the write up of this project, which is likely to be published. As a result it is impossible to guarantee that my identity will not be recognised by other members of the MBCP group. ☐
6. I understand that no identifiable personal data will be kept by the researcher. Information will be kept in a secure and locked cupboard at Coventry University which will be separate from my interview data. Once the study has finished, my data will be stored at Coventry University for 5 years on secure university premises and then destroyed following this period, in accordance with university policy. ☐
7. I understand that if I or someone else is deemed to be at a serious risk of harm; or there are concerns for the neglect or abuse of children, then the researcher will have an ethical responsibility to share relevant information with professional agencies and this may be without my permission. If this happens, where possible the researcher will aim to discuss this with me first. ☐
8. I understand that this study has been reviewed and given ethics clearance by Coventry University and the University of Oxford. ☐
9. I understand how to raise a complaint should I wish to do so. ☐
10. I agree to take part in this study. ☐

Name of Participant Signature Date

Researcher
Amber Sedgfield
Trainee Clinical Psychologist
Doctoral Student Signature Date

When completed: 1 copy for the participant, original copy to be retained in research file.

Appendix 10

INTERVIEW SCHEDULE

Title of Research:

Participant experiences of mindfulness and parenting at one year follow up after attending the Mindfulness-Based Childbirth and Parenting (MBCP) programme; a qualitative study.

Name of Researcher: Amber Sedgfield

Introduction

This interview is rather like a one-sided conversation. I am interested in your experiences since you participated on the MBCP group and have become a parent to your child. There are no right or wrong answers. I am interested in as much detail as you care to give.

Experiences of MBCP

Opening questions

- Can you tell me what brought you to the group? (expectations)
- What were your experiences of the group?

Prompt questions

- What were the most positive experiences?
- What were the most challenging aspects of the course for you?
- What was your experience of the group setting?

Experiences of mindfulness

Opening questions

- What does mindfulness mean to you?
- What have been your experiences of mindfulness, if any since completing the group?

Prompt questions

- What is your experience, if any, of being able to establish formal mindfulness practice?
- What are your preferred formal practices?
- What are your experiences of informal practices? What were your preferred informal practices?
- How would you describe how your mindfulness practice has evolved over the year?

Experiences of parenting

Opening questions

- What are your experiences of using mindfulness practice, if any, in regard to parenting?

Prompt questions

- What are your experiences of parenting? After birth, and now?
- What has your experience been of your transition into early parenthood? (first time parent)
- OR What was your experience of early parenthood this time around?

Experiences of relationships

Opening questions

- How would you describe your experience of relationships since participating on MBCP?

Prompt questions

- What is your experience of your relationship with your child?
- What is your experience of your relationship with your partner? (Since becoming parent)?
- What has been your experience of mindfulness , if any, in your relationship with your child?

- What has been your experience of mindfulness, if any, in your relationship with your partner?
- What has been your experience of mindfulness in other relationships? Prompt MBCP group?

Experiences of emotional well-being

Opening questions

- What are your experiences of thoughts since the birth of your child until now?
- What are your experiences of emotions since the birth of your child until now?

Prompt questions

- What are your experiences of using mindfulness practice, if any, in regard to thoughts and/or and emotions since the birth of your child?
- What has not been helpful in managing difficult emotions?
- What has been helpful in managing difficult emotions?
- What has your experience been of positive emotions?

Ending the interview

Depending on what direction the interview has taken, aim to end it by talking about positive experiences of using mindfulness, in order to generate hope and a sense of being able to cope if the individual has become distressed during any parts.

Generic prompts:

- Could you please tell me more?
- Could you give a specific/recent example?
- Can give me an example of a positive/challenging time?
- In what way was that helpful/unhelpful?

Pilot questions for feedback on interview:

What was your experience of this interview?

- What was helpful / unhelpful about the interview?
- What areas or questions were easy / difficult to talk about?
- How comfortable did you feel during the interview?

- At any points did you feel that I was being invasive/intrusive?
- How could the interview be made better/improved for people? Any other comments

APPENDIX 11

Stages of IPA Analysis

Stages 1 to 6 of analysis used within this study followed the guidelines proposed by Smith, Flowers and Larkin (2009) as described below. The researcher also included 'Stage 0' which was also viewed as part of the analysis phase;

Stage 0: Interview observations and reflections

After each interview the researcher made notes on some of the most powerful feelings and observations about the content and process experienced within and after each interview. This process continued during the transcription of interviews and alongside the analysis.

Stage 1: Reading and re-reading

The transcript was read and re-read without making formal notes in conjunction to listening to the audio-recording, in order to recall the voice of the participant. The aim of this stage is to slow the process down in order to become more familiar with the participant's individual experience and to actively engage with the data. As described above, informal notes were taken about the researchers first impressions of the interview and possible connections between themes, in order to bracket these off and stay focussed on the data presented.

Stage 2: Preliminary noting of exploratory comments

This stage involves developing a comprehensive set of notes about the data which includes a phenomenological focus that remains close to the participant's explicit meaning of their experience. Exploratory comments may include descriptions of issues that matter to the participant including relationships, values, places etc. in addition to what these experiences are like for them.

Exploratory comments can take multiple forms of which three types are described by Smith and colleagues (2009);

Descriptive comments are closely grounded in the data because they include descriptions of what the participant has said and take the data at "face value" (Smith et al., 2009, p.84).

Linguistic comments focus on the language that is used to reflect the content and meaning for the participant. Areas of interest may include the use of metaphor, pauses, laughter, tone and fluency. For example 'there's more at stake' reflected a sense of greater responsibility as a father and a sense that he has more to lose. 'Being completely out of my comfort zone' was used to describe one participant's experience of being a mother. This was interpreted as a sense of feeling deskilled, uncertain and lacking confidence in knowing how to manage situations with her baby.

Conceptual comments move towards a more interpretative level of analysis, by moving from the descriptive to an overall understanding of the issues discussed. One participant reflected that her previous approach to difficult thoughts would be to 'shoved them to the back somewhere' which was interpreted as avoidant coping. At times the researcher used the deconstruction technique proposed by Smith and colleagues (2009) in order to get closer to what the individual participant was saying as a way of bracketing personal assumptions about the text. This involves annotating a section of transcript line by line backwards.

Stage 3: Emergent themes

The development of emergent themes aims to reduce the body of exploratory comments by identifying connections and patterns across exploratory comments whilst reflecting an understanding of the meaning for the participant. This stage of the analysis includes breaking the whole interview into a set of parts and takes the researcher further away from the original transcript. This also involves "the hermeneutic circle where the part is interpreted in relations to the whole; the whole is interpreted in relation to the part" (Smith et al., 2009, p.92). At this stage two of the transcripts were quality checked and discussed with the researcher. This highlighted any further assumptions she needed to bracket.

Stage 4: Distinguishing thematic clusters of emergent themes

This stage involved the researcher typing up each emergent theme and then using the space on a table started to connect them together within clusters of themes. Emergent themes were connected together by putting like with like initially

(abstraction). Themes were also clustered together if they appeared to have oppositional relationships (polarisation) including 'lack of time as parent' versus 'slowing down' were connected together. Each cluster was then provided with title which interpreted the cluster of emergent themes. This happened again until superordinate themes emerged for each participant which had a number of subthemes. The researcher ensured that these themes were grounded within the data by collected a list of quotes for each sub-theme within a Microsoft Word document. Any emergent themes that did not fit within the thematic clusters were put in a 'discarded' envelop in case they needed to be referred back too.

Stage 5: Analysing the next case

The researcher then moved to complete stages 0 to 4 for the next participant. During this process the researcher continued to make notes of her reflections about emerging connections between cases in order to bracket her assumptions and understanding from previous interviews. This was to enhance the idiographic commitment to ground the analysis of each interview within the data provided. For example, this was especially important when interviewing couples who will have shared experiences but were likely to have different interpretations of those experiences.

Stage 6: Identifying patterns across participants

This stage involved bringing together all of the superordinate and subthemes themes from each case and initially matching them like for like. This involved the researcher using a large space to bring together all of the sub-themes and

superordinate themes from each participant into one space. At this stage a number of super-ordinate themes within individual cases were removed from the analysis if they were specific to an individual and not shared across the group.

Following this the researcher spent time interpreting the themes to find connections. This reflected the 'hermeneutic circle' and iterative process of returning back to the data, emergent themes and subthemes before the final superordinate and subthemes were finalised. This process continued into the write up of the results section. Through this process the researcher revisited the themes with the supervisory team and used this as a way to bracket her own personal assumptions. For example, the researcher felt very protective of keeping a theme of loss and grief, however this was only present for a subset of people and so it was decided to exclude it from the final analysis.

The following extract includes an example of developing emergent themes from Maria's interview. Here she talks about putting her babies to bed;

Transcript	Emergent themes and exploratory comments
<p><i>Interviewer:</i> And what about other informal practices that you do on a day to day basis? Have you got any examples?</p> <p><i>Maria:</i> And there's one I do every single day without fail, and it's at the boys' bedtime. And they're in cots next to each other, so in separate cots next to each other, and when <u>we</u> put them to bed they, now because they can stand; they flip over, climb up the side of the cot, stand up and chat to each other. <u>Really lovely</u>. And so all (partner's name) and I do, is <u>we</u> kind of sit them back down, <u>we</u> lie them back down gently and <u>we</u> let go. And they stand up again (both laugh). And <u>we</u> do it <u>without talking</u> to them, lie them back down again. And <u>we</u> do that as many times as it takes before they settle, sometimes it can be a couple of times, sometimes it can feel like you know, 20 times, but....I use the mindfulness of being in that present moment for that particular process. So when I, they often grip onto the side of the cot quite solidly '<u>oh, you're not getting me!</u>' (I: laughs). So what I tend to do is just lift them up slightly because of pulling them, because they can't grip on if you lift them up. But I do it in a very slow and deliberate and quite a gentle manner and I just found that keeps me calm, I can do that almost, I feel like I could do that almost all night without getting frustrated, and I guess in turn hopefully it <u>sends the right signal</u> to them. So yes, that's pretty much a daily occurrence. And certainly when the boys were a bit younger, <u>we</u> did quite a lot of the mindful walking in the MBCP group, and used that a lot just with one of them, sometimes two. One in the sling, holding one if they were unsettled or crying. Just doing that <u>really lovely</u> slow, kind of deliberate walk yes.</p>	<p>Descriptive comments</p> <p>Regular bedtime routine putting the babies to bed. Babies intentions differ from parents, they want to stay awake and communicate and not go to sleep. Working together with her partner in unison, each responsible for a baby. Using mindful movement to gently lift the children Calm and gentle approach to bedtime.</p> <p>Linguistic comments (underlined)</p> <p>'Really lovely' is used on a couple of occasions to describe her experience within potentially frustrating situations, e.g. baby not going to sleep or crying. It seems she is able to focus her attention on the baby's experience or mindful movement which prevents her emotions building. Use of 'we' emphasises that her and her partner are working together towards the same goal. 'without talking' indicates a shared understanding. '<u>oh, you're not getting me!</u>' Here Maria imagines what her babies might say if they could talk showing empathy for the baby. 'sending the right signal', hope that the babies will learn to develop patience and calm overtime. There was an emphasis in her tone on 'gentle manner'</p> <p>Conceptual comments</p> <p>'we let go', this could be interpreted as having to meanings. Firstly, physically letting go of the babies in their cot. Secondly, emotionally it could signify the letting go of any expectations for them to sleep or potential frustration. Maria also appears empathic and attuned to her children's experience of wanting to communicate together and stay awake. There appears to be a shared understanding in the couple's approach to bedtime. What is unknown is how the partner feels? Is he able to maintain his calm and not get frustrated? Although there is an intention to settle the babies down for bed, this seems to contrast the acceptance and letting go of frustration or intention when the babies do not settle. Being focused in the present moment seems to limit the build-up of frustration and bring a calm and peacefulness to the process at bedtime. There was a sense that this memory was very vivid and that Maria cherished it as a precious time of day.</p> <p>Emergent themes</p> <p>Baby becomes the meditation Acceptance of babies behaviour Attunement to baby Empathy for baby Shared understanding with partner Calm approach to parenting Being present in the moment Using mindful movement to help keep calm</p>

Appendix 12

Coventry University
Priory Street, Coventry CV1 5FB
Telephone 024 7688 8328
Fax 024 7688 8702

Programme Director
Doctorate Course in Clinical Psychology
Dr Eve Knight
BSc Clin.Psy.D., CPsychol



21 August 2013

Dear

Participant experiences of mindfulness, parenting and emotion regulation at one year follow up after attending the Mindfulness-Based Childbirth and Parenting (MBCP) programme; a qualitative study.

Thank you for participating in the interview on Friday 02 August. I have completed the transcription of your interview and have enclosed a copy for you to review. As we discussed, all the information from the interviews will be used in the final analysis of the study. It is also anticipated that extracts / quotes from any of the interviews could be included within the final write up of this project, which is likely to be published. As a result, despite providing participants with pseudonym names, it is impossible to guarantee that your identity will not be recognised by other members of the MBCP group you attended, should they read the report.

Therefore if there are any lines that you would prefer not to be quoted from your interview, in the final report then please let me know, providing a list of the line numbers via email at sedgefia@uni.coventry.ac.uk. Alternatively, I would be very happy to give you a call if you would prefer to discuss this in person over the phone. Please can you let me know by **Friday 20th September 2013**.

I really appreciate you taking the time to answer my questions and be interviewed for this study.

Best wishes,

Amber Sedgfield
Trainee Clinical Psychologist, Doctoral Student.

Dean of Faculty of Health and Life Sciences
Dr Linda Merriman Mphil PhD DpodM CertEd Coventry University Priory Street Coventry CV1 5FB Tel 024 7679 5805
Head of Department of Psychology
Professor James Tresilian BSc PhD University of Warwick Coventry CV4 7AL Tel 024 7657 3009

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Appendix 13

Instructions for Authors

Close

Types of papers

- Original Contributions / Research Articles

Original Contributions / Research Articles should be arranged under the following headings:

Abstract:

Not to exceed 150–200 words

Keywords:

Not more than five

Introduction:

To include the background literature as well as the objective(s) of the study

Materials and Methods:

Describe the basic study design. State the setting (e.g., primary care, referral center). Explain selection of study subjects and state the system of diagnostic criteria used. Describe any interventions and include their duration and method of administration. Indicate the main outcome measure(s). Specify the dates in which data were collected (month/year to month/year).

Results:

Include the key findings. Give specific data and their statistical significance, if possible (include p value if findings were significant). Subset Ns should accompany percentages if the total N is <100. Discussion and Conclusion. Sections conforming to standard scientific reporting style.

Discussion and Conclusion

Sections conform to standard scientific reporting style

- Reviews

Reviews are intended to draw together important information from recent publications on subjects of broad interest. They are meant to provide a venue for critical examination and considered opinion of such information.

Reviews are not meant to be encyclopedic and should not exceed 20 pages when typed. Reviews may contain figures and tables. References should be cited in the same way as in full-length articles.

It is recommended that authors contact the Editor-in-Chief beforehand to determine if a proposed review is likely to be suitable for publication. Reviews should be comprehensive, fully referenced expositions of subjects of general interest, including background information and detailed critical analyses of current work in the field and its significance. They should be designed to serve as source materials.

- Short Communications

Short Communications should be prepared as described above except for the following:

The average length of Short Communications should not exceed 1500 words and may include a maximum of two figures or tables and up to 12 references. The summary should not exceed 80 words.

Short Communications can only be accepted or rejected.

- Letters to the Editor

Letters to the Editor should be a maximum of 750 words and may include one table or figure and up to five references.

Manuscript Submission

Manuscript Submission

Submission of a manuscript implies: that the work described has not been published before; that it is not under consideration for publication anywhere else; that its publication has been approved by all co-authors, if any, as

well as by the responsible authorities – tacitly or explicitly – at the institute where the work has been carried out. The publisher will not be held legally responsible should there be any claims for compensation.

Permissions

Authors wishing to include figures, tables, or text passages that have already been published elsewhere are required to obtain permission from the copyright owner(s) for both the print and online format and to include evidence that such permission has been granted when submitting their papers. Any material received without such evidence will be assumed to originate from the authors.

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Authors should submit their manuscripts online. Electronic submission substantially reduces the editorial processing and reviewing times and shortens overall publication times. Please follow the hyperlink “Submit online” on the right and upload all of your manuscript files following the instructions given on the screen.

Reviewer suggestions

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Title page

Title Page

The title page should include:

- The name(s) of the author(s)
- A concise and informative title
- The affiliation(s) and address(es) of the author(s)
- The e-mail address, telephone and fax numbers of the corresponding author

Abstract

Please provide a structured abstract of 150 to 250 words which should be divided into the following sections:

- Purpose (stating the main purposes and research question)
- Methods
- Results
- Conclusions

Keywords

Please provide 4 to 6 keywords which can be used for indexing purposes.

Important note:

Please ensure your authorship is correct, check spelling of authors' names, line up, etc.

No changes can be made once copyright has been transferred to us.

Text

Text Formatting

Manuscripts should be submitted in Word.

- Use a normal, plain font (e.g., 10-point Times Roman) for text.
- Use italics for emphasis.
- Use the automatic page numbering function to number the pages.
- Do not use field functions.
- Use tab stops or other commands for indents, not the space bar.
- Use the table function, not spreadsheets, to make tables.

- Use the equation editor or MathType for equations.
- Save your file in docx format (Word 2007 or higher) or doc format (older Word versions).
Manuscripts with mathematical content can also be submitted in LaTeX.
- LaTeX macro package (zip, 182 kB)

Headings

Please use no more than three levels of displayed headings.

Abbreviations

Abbreviations should be defined at first mention and used consistently thereafter.

Footnotes

Footnotes can be used to give additional information, which may include the citation of a reference included in the reference list. They should not consist solely of a reference citation, and they should never include the bibliographic details of a reference. They should also not contain any figures or tables.

Footnotes to the text are numbered consecutively; those to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data). Footnotes to the title or the authors of the article are not given reference symbols.

Always use footnotes instead of endnotes.

Acknowledgments

Acknowledgments of people, grants, funds, etc. should be placed in a separate section before the reference list. The names of funding organizations should be written in full.

References

Citation

Cite references in the text by name and year in parentheses. Some examples:

- Negotiation research spans many disciplines (Thompson 1990).
- This result was later contradicted by Becker and Seligman (1996).
- This effect has been widely studied (Abbott 1991; Barakat et al. 1995; Kelso and Smith 1998; Medvec et al. 1999).

Reference list

The list of references should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Do not use footnotes or endnotes as a substitute for a reference list.

Reference list entries should be alphabetized by the last names of the first author of each work.

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Ideally, the names of all authors should be provided, but the usage of “et al” in long author lists will also be accepted:
Smith J, Jones M Jr, Houghton L et al (1999) Future of health insurance. *N Engl J Med* 341:325–329
- Article by DOI
Slifka MK, Whitton JL (2000) Clinical implications of dysregulated cytokine production. *J Mol Med*. doi:10.1007/s001090000086
- Book
South J, Blass B (2001) *The future of modern genomics*. Blackwell, London
- Book chapter

Brown B, Aaron M (2001) The politics of nature. In: Smith J (ed) The rise of modern genomics, 3rd edn. Wiley, New York, pp 230-257

- Online document

Cartwright J (2007) Big stars have weather too. IOP Publishing PhysicsWeb.

<http://physicsweb.org/articles/news/11/6/16/1>. Accessed 26 June 2007

- Dissertation

Trent JW (1975) Experimental acute renal failure. Dissertation, University of California

Always use the standard abbreviation of a journal's name according to the ISSN List of Title Word

Abbreviations, see

- ISSN.org LTWA

If you are unsure, please use the full journal title.

For authors using EndNote, Springer provides an output style that supports the formatting of in-text citations and reference list.

- EndNote style (zip, 1 kB)

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- All tables are to be numbered using Arabic numerals.
- Tables should always be cited in text in consecutive numerical order.
- For each table, please supply a table caption (title) explaining the components of the table.
- Identify any previously published material by giving the original source in the form of a reference at the end of the table caption.
- Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

Artwork and Illustrations Guidelines

Electronic Supplementary Material

Springer accepts electronic multimedia files (animations, movies, audio, etc.) and other supplementary files to be published online along with an article or a book chapter. This feature can add dimension to the author's article, as certain information cannot be printed or is more convenient in electronic form.

Submission

- Supply all supplementary material in standard file formats.
- Please include in each file the following information: article title, journal name, author names; affiliation and e-mail address of the corresponding author.
- To accommodate user downloads, please keep in mind that larger-sized files may require very long download times and that some users may experience other problems during downloading.

Audio, Video, and Animations

- Always use MPEG-1 (.mpg) format.

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- Submit your material in PDF format; .doc or .ppt files are not suitable for long-term viability.
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- Spreadsheets should be converted to PDF if no interaction with the data is intended.
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- Specialized format such as .pdb (chemical), .wrl (VRML), .nb (Mathematica notebook), and .tex can also be supplied.

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Numbering

- If supplying any supplementary material, the text must make specific mention of the material as a citation, similar to that of figures and tables.
- Refer to the supplementary files as “Online Resource”, e.g., “... as shown in the animation (Online Resource 3)”, “... additional data are given in Online Resource 4”.
- Name the files consecutively, e.g. “ESM_3.mpg”, “ESM_4.pdf”.

Captions

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It should also be stated clearly in the text that all persons gave their informed consent prior to their inclusion in the study. Details that might disclose the identity of the subjects under study should be omitted.

These statements should be added in a separate section before the reference list. If these statements are not applicable, authors should state: The manuscript does not contain clinical studies or patient data.

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The author will be held responsible for false statements or failure to fulfill the above-mentioned requirements

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The article will be published online after receipt of the corrected proofs. This is the official first publication citable with the DOI. After release of the printed version, the paper can also be cited by issue and page numbers.

Appendix 14

Mindfulness

Editor-in-Chief: Nirbhay N. Singh
ISSN: 1868-8527 (print version)
ISSN: 1868-8535 (electronic version)
Journal no. 12671

Instructions for Authors

Editorial procedure

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- A separate title page, containing title, all author names, affiliations, and the contact information of the corresponding author. Any acknowledgements, disclosures, or funding information should also be included on this page.

Manuscript Submission

Manuscript Submission

Submission of a manuscript implies: that the work described has not been published before; that it is not under consideration for publication anywhere else; that its publication has been approved by all co-authors, if any, as well as by the responsible authorities – tacitly or explicitly – at the institute where the work has been carried out. The publisher will not be held legally responsible should there be any claims for compensation.

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Online Submission

Authors should submit their manuscripts online. Electronic submission substantially reduces the editorial processing and reviewing times and shortens overall publication times. Please follow the hyperlink “Submit online” on the right and upload all of your manuscript files following the instructions given on the screen.

Title Page

The title page should include:

- The name(s) of the author(s)
- A concise and informative title
- The affiliation(s) and address(es) of the author(s)
- The e-mail address, telephone and fax numbers of the corresponding author

Abstract

Please provide an abstract of 150 to 250 words. The abstract should not contain any undefined abbreviations or unspecified references.

Keywords

Please provide 4 to 6 keywords which can be used for indexing purposes.

Text Formatting

Manuscripts should be submitted in Word.

- Use a normal, plain font (e.g., 10-point Times Roman) for text.
- Use italics for emphasis.
- Use the automatic page numbering function to number the pages.
- Do not use field functions.
- Use tab stops or other commands for indents, not the space bar.
- Use the table function, not spreadsheets, to make tables.
- Use the equation editor or MathType for equations.
- Save your file in docx format (Word 2007 or higher) or doc format (older Word versions).

Manuscripts with mathematical content can also be submitted in LaTeX.

- LaTeX macro package (zip, 182 kB)

Headings

Please use no more than three levels of displayed headings.

Abbreviations

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Footnotes

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Always use footnotes instead of endnotes.

Acknowledgments

Acknowledgments of people, grants, funds, etc. should be placed in a separate section before the reference list. The names of funding organizations should be written in full.

Terminology

- Please always use internationally accepted signs and symbols for units (SI units).

Scientific style

- Generic names of drugs and pesticides are preferred; if trade names are used, the generic name should be given at first mention.
- Please use the standard mathematical notation for formulae, symbols etc.:
Italic for single letters that denote mathematical constants, variables, and unknown quantities
Roman/upright for numerals, operators, and punctuation, and commonly defined functions or abbreviations, e.g., cos, det, e or exp, lim, log, max, min, sin, tan, d (for derivative)
Bold for vectors, tensors, and matrices.

References

Citation

Cite references in the text by name and year in parentheses. Some examples:

- Negotiation research spans many disciplines (Thompson 1990).
- This result was later contradicted by Becker and Seligman (1996).
- This effect has been widely studied (Abbott 1991; Barakat et al. 1995; Kelso and Smith 1998; Medvec et al. 1999).

Reference list

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Harris, M., Karper, E., Stacks, G., Hoffman, D., DeNiro, R., Cruz, P., et al. (2001). Writing labs and the Hollywood connection. *Journal of Film Writing*, 44(3), 213–245.
- Article by DOI
Slifka, M. K., & Whitton, J. L. (2000) Clinical implications of dysregulated cytokine production. *Journal of Molecular Medicine*, doi:10.1007/s001090000086
- Book
Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.
- Book chapter
O’Neil, J. M., & Egan, J. (1992). Men’s and women’s gender role journeys: Metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107–123). New York: Springer.
- Online document
Abou-Allaban, Y., Dell, M. L., Greenberg, W., Lomax, J., Peteet, J., Torres, M., & Cowell, V. (2006). Religious/spiritual commitments and psychiatric practice. Resource document. American Psychiatric Association. http://www.psych.org/edu/other_res/lib_archives/archives/200604.pdf. Accessed 25 June 2007.

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