Fathers' experiences of maternal depression in the postnatal period: Connecting with the child in the middle

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By

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DECLARATION

I declare that the literature review and research contained within this thesis is original work, created solely by the author.

The contents of this thesis have not been submitted for any other award or to any other institution other than the Doctorate in Clinical Psychology at the University of Leicester.

Kristina Keeley-Jones

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THESIS ABSTRACT

The effects of maternal depression in the postnatal period are diverse and can lead to psychological distress within the family system.

A systematic literature review examined the effects of maternal depression in the postnatal period on parental ratings of infant temperament, and the research report explored fathers' experiences of their partner's depression and concurrent father-child relationship development.

The systematic literature review identified and evaluated quantitative research examining the relationship between maternal depression in the postnatal period and its influence on negative parental perceptions of infant temperament. Thirteen studies were reviewed, with twelve studies reporting significant results suggesting maternal depression increases negative parental perceptions of infant temperament. Few studies examined infant-to-parent effects thus limiting firm conclusions. Five studies examined treatment effects on perceptions of infant temperament presenting equivocal results. Conclusions were compromised due to various methodological limitations, including potential confounds of prenatal factors.

The research study used a qualitative design with semi-structured interviews to explore five participants' experiences of their partner's maternal depression in the postnatal period and their developing relationships with their children. The data was analysed using Interpretative Psychological Analysis, and participants described their searching to understand their partner's depression, frequently evidencing a negative impact on their own psychological well-being and their struggle to connect with their children. Participants described strengthened relationships with their partner and their child, although some reported the effects of the depression as lingering within the family. The findings were interpreted relating to previous research and relevant psychological theory, and suggestions for future research, the validity of the findings, and the clinical implications of the study were discussed.

The researchers' personal accounts, reflections and learning points relating to conducting the research are presented within the critical appraisal.

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WORD COUNT

	Text Only	Tables, References and Appendices
Abstract	281	-
Literature Review	6,765	5,059
Research Paper	11,879	2,316
Critical Appraisal	2,657	20
Total	21,583	7,395

Total word count including text, tables, references and non-mandatory appendices

28,977

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PART ONE:

LITERATURE REVIEW

Exploring the relationship between maternal depression in the postnatal period and infant temperament: A review

1 LITERATURE REVIEW ABSTRACT

Exploring the relationship between maternal depression in the postnatal period and infant temperament: A review

Kristina Keeley-Jones

The aims of the current review were to systematically identify and evaluate the quantitative evidence-base to examine 1) the relationship between presence of maternal depression in the postnatal period and parental ratings of infant temperament, 2) the evidence for any directional effects between temperament and depression, and 3) the effects of treatment for depression on ratings of infant temperament. Systematic searching returned thirteen studies suitable for inclusion in the review after applying inclusion and exclusion criteria. Twelve studies reported significant results suggesting the presence of maternal depression increases negative parental ratings of infant temperament. One study examined infant-to-parent and parent-to-infant effects of maternal depression and negative infant temperament, indicating maternal depression influences negative temperament ratings. Negative infant temperament was suggested not to influence maternal depression in the postnatal period, although further study is required. Five studies examined treatment effects on perceptions of infant temperament presenting equivocal results and few reported the impact of maternal depression on paternal ratings of infant temperament. Methodological limitations of the reviewed studies include sampling procedures, lack of studies including paternal ratings, and potentially confounding effects of prenatal factors including prenatal anxiety. Further investigation is warranted to examine the effects of confounding variables that limit conclusions of the current review, and further studies including fathers are indicated. Developing an understanding of the factors influencing negative parental ratings of infant temperament within the context of maternal depression will inform future interventions to facilitate optimal parent-infant relationship development.

Key Words: Postpartum depression, infant temperament, parental perceptions, negative affectivity, negative emotionality.

Target Journal: Infant Behaviour and Development

Word Count: 238

2 INTRODUCTION

Infancy is a time where orienting and self-soothing capabilities are established (Gerhardt, 2004; Gartstein & Bateman, 2008), and marked by rapid neuron growth and connectivity with increased synaptic pruning occurring around 2 to 3 years (Schore, 2001). Some identifiable developmental effects of this stage are pronounced, e.g. infant temperament development (Buss & Plomin, 1984) and influenced by the psychosocial environment (e.g. parenting style, maternal self-efficacy) (Gartstein & Rothbart, 2003; Gelfand & Teti, 1991). The current review focused on maternal depression in the postnatal period and aimed to explore its relationship to negative parental perceptions of infant temperament, as well as evaluate the evidence for any effects of negative infant temperament on depression. Finally, the current review sought to ascertain whether there are significant changes in parental perceptions of infant temperament following treatment for maternal depression.

2.1 On the Definition of Temperament

The construct of infant and child temperament (iT) has been widely debated with multiple empirical perspectives promoted. iT has been defined as a flexible and dynamic construct marked by *'constitutional differences in reactivity and self-regulation…influenced over time by heredity, maturation, and experience'* (Rothbart & Derryberry, 1981, p.37) with iT characteristics appearing in the first two years of life and showing stability over time (Buss & Plomin, 1984).

Thomas and Chess (1977) proposed iT to be influenced by prenatal and postnatal factors, for example, genetic heritability and the reciprocal nature of the parent-child

relationship, and particularly by the early psychosocial environment (Chess & Thomas, 1996).

One temperament classification system was derived using content analysis of semi-structured interviews of behavioural descriptions of infants in the New York Longitudinal Study (NYLS: Thomas & Chess, 1977). Nine temperamental characteristics or behavioural reaction patterns were derived from following individuals from infancy to adulthood: *activity level, rhythmicity, approach-withdrawal, adaptability, intensity of reaction, mood, distractibility, sensory threshold* and *persistence*[1] (Chess, 1990; Thomas & Chess, 1977), although later dimension analysis deemed some obsolete (e.g. quality of mood) (Zentner & Bates, 2008). Additional dimensions of iT within the literature remain diverse (for a review of differing iT dimensions and approaches see Zentner & Bates, 2008), with *negative affectivity/emotionality* most frequently studied (Pauli-Pott, Mertesacker, Bade, Bauer, & Beckman, 2000).

2.2 The Enduring Presence of Early Temperament

Corresponding to the early period of critical development, temperament acquires stability around age 3 years (McDevitt, 1986), finding lower levels of *adaptability* and *persistence* correlate with poor school performance (Paget, Nagle, & Martin, 1984), and *high activity* and reduced behavioural *self-regulation* increase risk for childhood alcoholism (Tarter, Kabene, Escallier, Laird, & Jacob, 1990). Parental temperament ratings in infancy and childhood have also been found to predict self-reported

[1] For definitions please see Appendix A.

temperament in adulthood (Pesonen, Räikkönen, Keskivaara, & Keltikangas-Järvinen, 2003).

2.3 Conceptualisation of the Easy-Difficult Child

iT was further classified into three categories of behavioural style: the *difficult child, slow-to-warm-up child* and the *easy child*, with a *difficult* child operationalised as displaying *negative mood, withdrawal*, low in initial *approach* and *adaptability* to novel situations, high *intensity*, and biological *irregularity*, with behavioural style influenced by the quality and sensitivity of the caregiving environment (Thomas & Chess, 1977; Thomas, Chess, & Birchwood, 1968). For example, a *difficult* child growing up in a 'hostile' psychosocial environment would increase risk for later psychopathology (Thomas & Chess, 1977).

2.4 Maternal Depression in the Postnatal Period

Maternal depression in the postnatal period (mDPP) can be severe and debilitating often occurring in the first 6 to 12 weeks following birth (Brockington, 1996), and differentiated from the 'baby blues' by greater risk severity, suicidality, and a lengthier illness course (Lusskin, Pundiak, & Habib, 2007); the 'blues' indicated by mild depression, irritability and insomnia, and decreased concentration and crying spells (O'Hara, Schlechte, Lewis, & Wright, 1991).

mDPP prevalence rates range between 6.5 to 12.9 per cent in the first postpartum year, with as many as 19.2 per cent of women experiencing a depressive episode in the first three months (see Gavin et al., 2005, for a review). Effects of mDPP on the infant are multifarious, including: reduced cognitive and developmental outcomes (Cornish, et

al., 2005); diminished environmental curiosity and reduced focus on tasks (Edhborg, Lundh, Seimyr, & Widström, 2001); and, increased prevalence of internalising or externalising disorders, and impaired peer relationships (Murray, Sinclair, Cooper, Ducournau & Turner, 1999). Given the wide effects of mDPP, continued exploration is necessary to examine its influence on infant development, particularly to the development of iT.

2.5 Previous Reviews

Initial reviews of the evidence examining the relationship between mDPP and iT materialised after more than ten years of research into the area, with Mayberry and Affonso (1993) publishing a descriptive review indicating maternal perceptions of difficult iT as contributing to mDPP, using e*xcessive crying* and *infant adaptability* and *predictability* as the primary behavioural indices of *difficult* iT. Reviewed studies indicated that mDPP was significantly related to perceptions of difficult infant temperament, parental disruption due to caretaking demands, low parental self-efficacy, greater neonatal complications, and excessive infant crying. Accurate measurement of depression and iT was highlighted as vital for adequate interpretation of the evidence, and concerns arose as only one study employed a multimethod approach (i.e. both maternal and independent observer ratings) in the assessment of iT. Measurement of depression in the studies primarily used the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) although reliability was questioned given some items assessing factors normally related in early parenthood (e.g. fatigue, sleep disturbance: Mayberry & Affonso, 1993). Additional measurement difficulties included studies' lack of longitudinal designs with multiple assessment points, as most only assessed at 6-8 weeks post delivery. Mayberry and Affonso (1993) queried whether

unmeasured variables (e.g. maternal employment, marital status) would confound any tentative link between mDPP and iT, and suggested that to better understand the transition to parenthood, further research relating to fathers' perceptions of infant temperament was desirable (Mayberry & Affonso, 1993).

Beck's (1996) later review analysed seventeen studies to determine the magnitude of the relationship between mDPP and iT in the first postnatal year. Studies demonstrated multimethod assessment of the variables, although seven used the BDI, with iT measured most commonly (n = 8) by the Infant Temperament Questionnaire (ITQ; Bates, Freeland, & Lounsbury, 1979). Beck (1996) found a moderate relationship between iT and mDPP, with variable effect sizes dependent on sample size and publication year (mean r index = 0.31, p = 0.05); sample size increased with more recent publication year leading to decreased effect sizes, thus reflecting a more accurate relationship between iT and mDPP (Beck, 1996). Similar to Alfonso and Mayberry (1993), Beck (1996) reported significant methodological difficulties including use of self-report measures, lack of longitudinal designs, and the variety of the data collection points, with such diversity limiting the findings (Beck, 1996).

Reflective of the quality of the studies, neither review discussed the possibility of directional effects in the relationship between mDPP and iT, and the question of whether a *difficult* iT or *negative emotionality* influences mDPP development, or whether mDPP influences parental ratings of infant temperament (pPRiT) remains unclear.

2.6 Review Aims and Rationale

There has been no known recent systematic review examining the relationship and any directional effects between mDPP and iT, and thus exploration of fathers' ratings or perceptions of iT in the context of mDPP remained unreported in the literature at the time of writing. Fathers are often involved in infant care (Brisch, 2004) and the inclusion of research relating to the father-infant relationship in the context of mDPP in the current review is accordingly relevant. The current review aimed to address the gap by reviewing the current evidence base for quantitative studies exploring the nature of the relationship between maternal depression in the postnatal period and parental ratings or perceptions of infant temperament.

The current review focused on parental ratings or perceptions of infant temperament with a view to using the evidence to answer three questions:

1) What is the relationship between pPRiT and mDPP? 2) Are there any significant directional effects of mDPP on pPRiT e.g. is there evidence for potential infant-induced variables influencing the development of mDPP? Finally, 3) are there significant changes in pPRiT following treatment for mDPP?

2.7 Clinical Significance

Clearly there is a case for examining the evidence on the relationship between mDPP and iT not least because of the potentially profound impact of mDPP on mental health, wellbeing, and on an individual's achievement throughout child- and adulthood.

The current review may contribute a cohesive summary of existing knowledge to support the search and provision for new treatment approaches to support optimal parent-infant relationships and the development of clinical standards to meet the needs of families where there is mDPP.

3 METHOD

3.1 Search Strategy and Terms

Search terms were identified using the Medical Subject Headings thesaurus of the National Library of Medicine and following an initial scoping review. Preliminary searching used ‘literature review’ and ‘systematic review’ filters without date limitations to retrieve previous review articles and meta-analyses. Terms relating to mothers, fathers, maternal/paternal perceptions, postnatal depression (e.g. PND, maternal depressi*, postpartum depress*, PPD), and temperament (e.g. negative emotionality/affectivity, fussy infant) were combined using Boolean operators (e.g. AND, OR) to retrieve articles for review. Limitations to the search strategy were applied due to time and resource constraints only including articles available in the English language with research based on human participants.

3.2 Rationale for Selection Criteria

Articles relevant by title and abstract that fitted the aforementioned search terms were screened using inclusion and exclusion criteria to examine the relationship between mDPP and iT in women who had experienced non-traumatic delivery. Qualitative methodologies, books and dissertation abstracts were excluded from the current review, which may have introduced publication bias.

3.2.1 *Inclusion/exclusion criteria*

Exclusion criteria applied for the current review were studies involving children over 6 months old at initial recruitment, premature birth or multiple births and mDPP occurring in military populations, as these were considered less generalisable. Due to the broad scope of articles within a range of approaches to iT, iT dimensions or definitions were not an excluding factor for analysis in this review.

Articles with infantile colic, feeding or sleep problems, maternal/paternal interaction, maternal/paternal temperament, mental health problems other than mDPP (e.g. posttraumatic stress disorder, anxiety), or mDPP's impact on toddler-hood or adolescence as the focus of the article were excluded due to operationally different constructs to the review question and also due to time and resource limitations.

Due to practical constraints including necessity for clarity, and after initial scoping identified their apparent dearth, articles using qualitative methodology were excluded from review as were descriptive or discursive accounts and studies with a primarily medical focus.

3.3 Article Identification and Selection

Articles were retrieved during December 2010 from PsychInfo, Medline and Web of Science using the search terms and database limits from 1996 to date to avoid repetition of previous reviews. Further searches were conducted using the Cochrane library, ScienceDirect, SwetsWise and Google Scholar using postpartum depression or postnatal depression and infant temperament as search terms. Hand searching of relevant journals was conducted finding one relevant journal, and the grey literature was

searched for using the OpenSIGLE database retrieving 1254 articles which, once viewed by title, retrieved no relevant articles for inclusion. The National Research Records Archive (NRRA) was searched using postnatal depression and infant temperament as key terms with three studies identified, but after further investigation were not included. One study, elicited from the NRRA was explored, but after correspondence with the named author, was excluded on finding the study was an unpublished dissertation. Email correspondence with authors in the field (Professor Charlie Lewis; Adrienne Burgess, The Fatherhood Institute) was also used to establish if any relevant articles had been omitted, adding no further articles. Finally, key authors' names were identified by cross-referencing articles which were then used as search terms.

Approximately 1302 full text articles were initially retrieved, with 275 articles deemed relevant by title and abstract, which were then screened against selection criteria. For a comprehensive outline of the numbers of articles at each point from initial searching to selection for review see Figure 1 below.

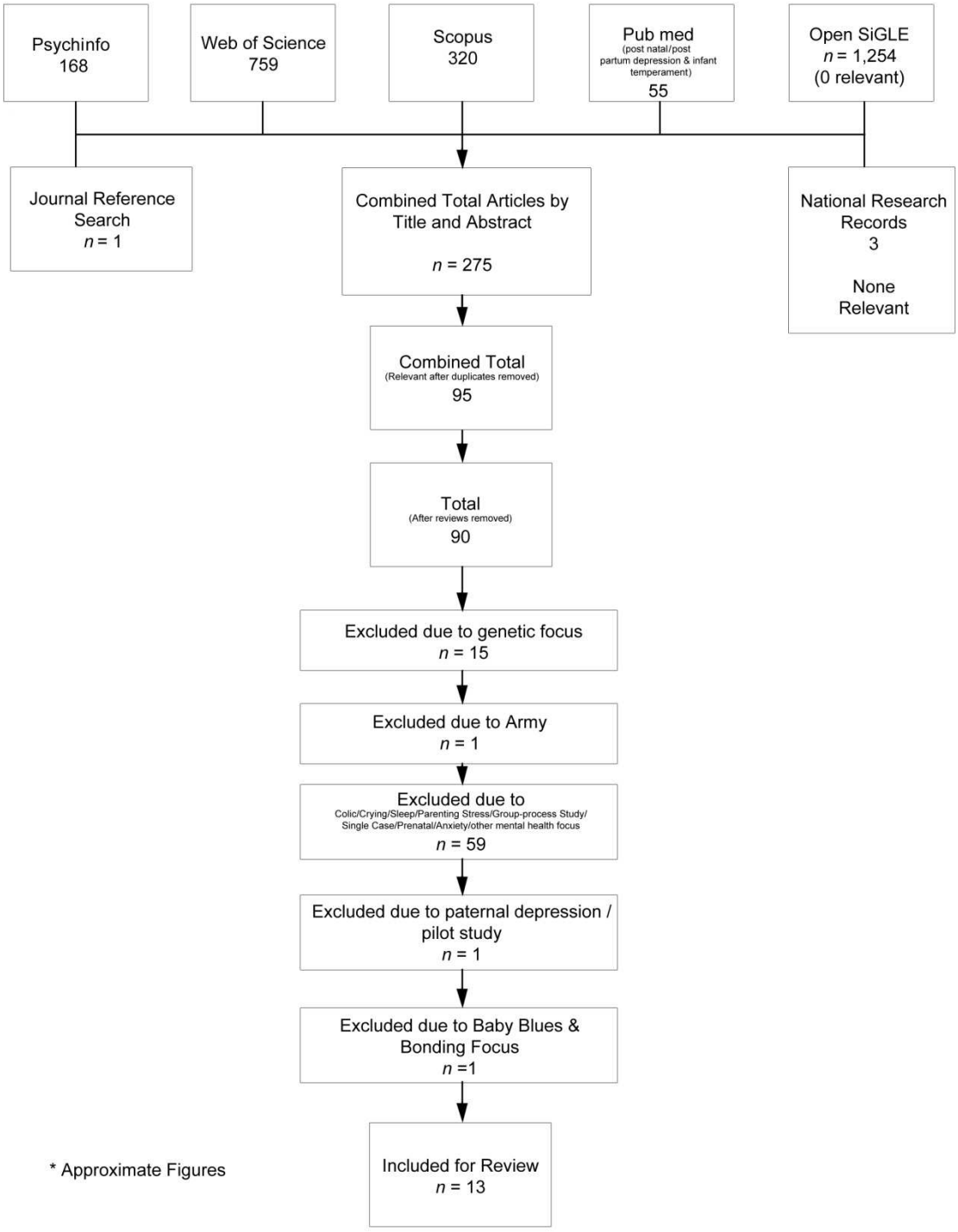

Figure 1 *Summary of article search.*

3.4 Data Extraction and Quality Assessment

Full text article screening revealed a total of 95 articles potentially meeting review criteria after removal of duplicates, and characteristics of these studies were evaluated with particular reference to each article's internal and external validity using a modified data extraction form and previously defined quality checklists (Crombie, 2007; NHS CRD, 2001) were applied to evaluate the articles for methodological rigour.

Seventy-seven articles were excluded as they described models, were group process studies, descriptions of single case interventions, focussed on prenatal factors, parenting stress, colic or other mental health problems, or focussed on mother-infant interaction outcomes. The remaining 13 articles for inclusion in the current review were given identification codes [1-13] and tabulated with relevant summaries detailed.

3.5 Data Synthesis

A narrative description of the data extracted relevant to the current review was generated including a summary of study design, sample characteristics, study findings, and quality. A meta-analysis was not appropriate due to inclusion of articles of varying methodology e.g sample sizes, assessment measures and assessment points.

4 RESULTS

4.1 Overview

Ten of the 13 reviewed studies used observational cohort designs, one study was a randomised controlled trial [4] and two used observational, cross-sectional [2, 10] designs. Categories were distinguished according to study aims, with studies exploring

the relationship between: mDPP and infant temperament [1-13]; any directional effects of the relationship between mDPP and pPRiT [1, 3, 6, 8, 13]; and, mDPP, temperament and intervention or in-patient treatment outcomes [4, 6, 7, 10, 12]. Some study outcomes fell into more than one category and are reported in the relevant section.

4.2 Summary of Publications

Publication rates of the articles included for analysis (see Table 1 below) seem to have been fairly consistent, showing an increasing trend with six being published from 2007 to date.

Date Published (*n*)	**Journal Publication (*n*)**	**Place of Study (*n*)**
2007-2010 (6)	Acta Paedriactica (1)	Australia (2)
2001-2006 (4)	Archives of Women's Mental Health (1)	Finland (1)
1996-2000 (3)	Australian and New Zealand Journal of Psychiatry (1)	Japan (1)
	Child Psychiatry and Human Development (1)	Sweden (2)
	Clinical Psychologist (1)	Turkey (1)
	Infant Behaviour and Development (4)	UK (2)
	Infant Mental Health Journal (1)	USA (4)
	Journal of Clinical Psychology (1)	
	Journal of Reproductive and Infant Psychology (1)	
	Nordic Journal of Psychology (1)	

Table 1 *Publication information and countries represented by articles included in review.*

4.3 Participant Characteristics

Across the categorised groups, nine studies used solely female participants [2, 3, 5, 6, 7, 9, 10, 12, 13] and four used both sex participants [1, 4, 8, 11]. Additional participant information is presented in Table 2 below.

	Sex (*n*)	**Participant Age[2] (*n*)**	**Sample Size[3] (*n*)**
(4)	Female (9) Female and Male	Not reported (3) 26-30 (5) 30-34 (5) Range 17-42 (2)	14541 (1) 1329 (1) 868 (1) 492 (1) 224-245(2) 100-156 (6) 73 (1)

Table 2 *Participant characteristics for reviewed articles.*

4.4 Methodological Features

A summary of the main features of the studies are documented in Table 3 below.

[2] Mother/father mean range years, unless stated.

[3] Parent sample size on recruitment, some are summed totals i.e. mother+father participants.

Table 3 *Sample characteristics, methodology and findings.*

ID code First author Year Country	Review Specific Aim	Participants /Demographics	Attrition	Design	Review Specific Measures	Temperament Dimension	Assessment points (Months)	Results - (p<0.05)	Non-significant/ Other Findings
1. Hanningt on et al. 2010. UK.	To explore parental depression and links with child temperament & direction of any effects.	Initially 14541 women recruited in pregnancy - 13988 infants alive at one year. 1027 depressed. Part of larger Avon Longitudinal Study of Parents and Children (ALSPAC). No exclusion. Demographics: Age nr, ethnicity 97.4% women, 96% men white British, social class 50.6% skilled 2.2% unskilled, education 64.7% mothers O'level or less, infant sex 51.7% male infants. Internet reference given for demographic analysis but unable to obtain on searching.	10317 (73.4%) children and 10401 (74%) mothers at 21-24 months PP. Fathers 6170 (43.9%) at 21-24months.	Observati onal cohort.	1). Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987) cut off >12. 2). Carey Temperament Scale (CTS; Carey & McDevitt, 1978).	Higher score = higher difficulty): Intensity; Mood.	Depressi on and tempera ment: 6-8 and 21-24.	Depressed fathers' male infants rated more intense and difficult mood at time 2. Maternal depression at time 1 predicted higher child mood and intensity scores at time 2 for both genders. Maternal depression dominates effect on temperament.	Child temperamen t did not predict parental depression i.e. no child-parent effects.

2. Tikotzky et al. 2010[b]. USA.	1) To assess if elevated maternal depression and disturbed sleep are associated with maternal perceptions of higher infant Negative Affectivity.	150 during pregnancy. 69 depressed at recruitment; 6 depressed PP. Targeted advertising in parent and baby publications and local clinics. Inclusion: 18+, viable pregnancy, depression. 69 mothers took part. Data collection February 2003 to May 2007. Demographics. Age mean 33.2.; Racial distribution - 65.2% Caucasian, 10.1% Asian, 1.4% African American, 20.3% Other - Hispanic; Education 9% High-school, 17.4% college, 50.7% degree, 29% finished graduate school. 63.8% income higher $70,000. Inclusion: All met criteria for major depressive disorder in pregnancy on recruitment, 6/69 (8.7%) met criteria at 6monthsPP. 38 male infants mean age all infants 5.9months. 52% first-borns.	69/150 complete data. 50/150 mothers not attend 6 month assessment. 28 not complete sleep/temperament questionnaire. 3 excluded twins. ANOVA no sig difference between those taken part/not included in study.	Observational cross-sectional.	1). Hamilton Rating Scale for Depression semi-structured interview (HRSD; Hamilton, 1967). 2). Infant Behaviour Questionnaire-Revised (IBQ-R; Gartstein & Rothbart, 2003).	Negative Affectivity (Sadness, Distress to Limitations, Fear, Falling Reactivity).	6.	Higher depression scores predict higher infant distress to limitations (crying if confined/unable to perform desired action) and falling reactivity scale (less able to self-recover after distress/lower arousal). Mothers with higher depression scores perceive their infants as having increased Negative Affectivity.	Soothability not associated with mDPP.

3. Bridgett et al. 2009. USA.	To explore relationship between infant temperament and mDPP.	Primary caregivers. 156 families. Depressed nr. Recruited from birth announcements in newspaper and hospital websites. Exclusion: preterm birth, birth complications/developmental delay, pre-postnatal complications. Demographics: Age mean = 30.31, marital status nr, education years, socioeconomic status, infant sex (43.9% female), ethnicity (92.4% Caucasian).	Missing data within recommended limits. Well documented. Month: 4-156; 6-123; 8-101; 10-97; 12-80; 18-69. 57 missing data by 18months. T-test comparing responders vs. non-responders for each time point* except mother responders at 12 months lower regulatory control at 8months vs non-responders**	Observational cohort.	1). Beck Depression Inventory-II (BDI-II; Beck et al., 1996). 2). Infant Behaviour Questionnaire-Revised (IBQ-R; Gartstein & Rothbart, 2003).	Positive affectivity/urgency; negative emotionality; regulatory capacity/orienting	Month 4: PSA, BDI-II, demographic questionnaire, IBQ-R. 6 8, 10, 12, 18	More intense depression symptoms 4 months caused a steeper slope for negative emotionality 4-12 months. 18months. Maternal depression influences NE development.

4. Goyal et al. 2009. USA.	To investigate the relationship between infant temperament and maternal depressive symptoms at 3 months PP.	112 Couples. 18 depressed. Recruited via convenience sampling from childbirth education class in 3rd Trimester. 75 women for intervention group (strategies to increase PP sleep); 75 women for control. Exclusion: if planned to hire a live-in nanny; night-shift workers; involuntary pregnancy loss. Demographics* Mean Age 32.5; marital status (100% married or partnered) (PPD; Infant temperament; sleep disturbance; delivery type (23& caesarean); infant sex (43% female); feeding type (71% breastmilk only); sleep disturbance). No group differences at baseline or 3months.	Not reported. Complete data for 112 people.	Authors stated randomised clinical trial.	1). 20-item Centre for Epidemiological Studies Depression Scale (CES-D; Callahan et al., 1991). 2). Maternal and Paternal ratings using 12-item investigator-developed questionnaire from other temperament measures e.g. Early Infant Temperament Questionnaire (EITQ; Medoff-Cooper et al., 1993).		1). Depression: maternal rating 3. 2). Temperament: Maternal and paternal ratings 3.	1). Prenatal depression in 3rd Tri explained 10% variance of PPD at 3months. Hierarchical linear analysis model explained 54.7% variance of DPP symptoms. 2). Maternal and paternal ratings correlated but fathers rating more difficult than mothers.	Infant temperament ratings (m/p) explained less than 1% variance of model.
5. McGrath	1). To determine any	139 women. Depressed: month 2 22, month 6 21.	7% over data collection	Observational	1). Edinburgh Postnatal		1). EPDS:	Depressed mothers reported more	-

et al. 2008. USA.	differences in temperament ratings of self-selected women who were depressed vs non-depressed women. 2). To explore changes in maternal perceptions of infant temperament over time	Recruited from 3rd trimester to 8months PP. Inclusion: 18+ years, English language, motivation to participate via post/telephone. No exclusion criteria. Convenience sampling from obstetrician's office. Demographics: Age mean = 27, marital status (66% married), ethnicity (89% Caucasian), parity, planned/unplanned pregnancy, emotional response to pregnancy, feeding intentions (%nr), delivery (20% Cesarean), birth weight, gestational age, complications. Split to depressed vs. non-depressed groups. Group differences* except lifetime physical abuse and anxiety for depressed group** and so was controlled for in analysis.	period. Low due to financial incentive continues despite missing data. Most P had at least one missing data point.	cohort.	Depression Scale (EPDS; Cox et al., 1987) cut off 12; Centers for Epidemiologic Studies Depressed Mood Scale (CES-D; Radloff, 1977). 2). The Predictors of Postpartum Depression Inventory-revised (PDPI-R; Beck, 2002; Beck et al., 2006).		2 and 6. 2). CES-D: Post-hospital discharge. 3). PDPI-R: prenatal and 2 and 6.	difficult infants at 2 and 6 months age than non-depressed mothers.
6. Simseck	1). Evaluate associations	103 mother-infant pairs. Depressed month 1 28,	Drop-out rate from visits	Observational	1). Edinburgh Postnatal	Happy-Unhappy;	Month 1, 2, 4,	Mothers reporting depressive symptoms -

Orhon et al. 2007. Turkey.	between PND and maternal perceptions of infant patterns 12 month follow-up. 2). To assess impact of intervention on perceptions.	month 12 3. Recruited well-baby visits. Exclusion: congenital abnormality, maternal chronic disease, preterm birth. Demographics*: EPDS <12 n = 68, EPDS 12+ n = 35. Mean age mother 29.7, father 33.3; maternal education % Primary 10.3 (EPDS <12) vs 2.9 (EPDS 12+) High 30.9 (EPDS <12) 42.9 (EPDS 12+) University 58.8 (EPDS <12) 54.3 (EPDS 12+); Mothers employed % 69.1 (EPDS <12) 57.2 (EPDS12+), Number children One % 61.8 (EPDS <12) 62.9 (EPDS 12+). Feeding (breastfeeding 100% on delivery).	35/103 (34%). Depressed treatment compliant mothers 30.4% (n=7). Non-treatment compliant mothers 58.3% (n=7) drop-out.	cohort.	Depression Scale (EPDS Turkish validation; Engindeniz, A. N., et al, 1996) cut off >12. Of those >12 Structured Clinical Interview for DSM-IV by Psychiatrist. 2). Temperament: Feeding - questions on feeding characteristics and methods; Sleep - maternal reports sleep and problems; Fussing - Infant cry-fuss question; Semantic Differential Questionnaire (SDQ; Mueller, 1986) High score negative perceptions	Easily-Uneasily controlled; Undisturbed-Disturbed; Rarely-Frequently Crying; Attentive-Inattentive; Active-Passive; Easily-Hardly cared.	6, 9, 12 well-child visits. Intervention: anti-depressant medication if indicated, psychotherapy - making use of social support, planning leisure time, stress management, time management skills.	at least once report more cry-fuss problems at diagnosis. Higher scores for infant temperament in mothers with depressive symptoms at least once than non-depressed. Higher scores temperament difficulty for depressed vs. non-depressed mothers at 1, 2, 6, 9 months. In depressed treatment group temperament difficulty scores lowered after treatment. Cry-fuss reportedly less after treatment.

					infant.				
7. Fisher et al. 2004 [a.] Australia.	To assess temperament and behaviour of infants and maternal mood.	Women admitted to mother and baby unit in 1997 (study 1) and 2002 (study 2). Study 1: 104/146 asked/agreed to take part. Depressed 58. Study 2: 81/99 asked agreed to take part. Depressed 59. Exclusion: Not reported. Demographics: infant age only. No stats reported.	Study 2: 6 not return questionnaires at 6 months after discharge from hospital (97% response rate). No stats reported.	Observational cohort.	1). Profile of Mood States (POMS; McNair et al., 1981); Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987). 2). Short Infant Temperament Questionnaire (SITQ; Sanson et al., 1987).	Approach-Withdrawing˜; Rhythmicity-Arrythmicity; Cooperation-Manageability˜; Activity-Reactivity; Irritability˜. ˜ = Dimensions contributing to Easy-Difficult composite score. 3) Infant Behaviour: Barr Charts (Study 2 only): Participant ratings of infant cry-fuss behaviours over 24hours.	Study 2: On admission MBU; 1 and 6 after treatment.	1). Temperament: Study 1: Admission ratings significantly higher than population norms for all dimensions except Activity-Reactivity. Study 2: Admission ratings significantly higher than population norms for Approach-Withdrawing, Irritability, and Easy-Difficult. 1 Month ratings significantly higher than population norms for all dimensions except Rhythmicity-Arhthymicity and Irritability. 6Month ratings significantly higher than population norms for all dimensions except Irritability. Study 2: 2). Ratings infant behaviour: 1month follow up	Increased maternal fatigue at 6months post-discharge vs. 1month ratings.

								ratings of sleep, night waking, self-settling, daytime sleep, crying, 24hr cry-fuss ratings were all significantly lower than admission ratings ($p<0.01$). Depression: 1Month ratings significantly lower than admission ratings for EPDS and POMS scores ($p<0.01$).	
8. Pesonen et al. 2004. Finland[c].	To establish whether depressive symptoms are associated with perceived infant temperament independently of adult attachment styles.	319 mother-infant and 173 father-infant dyads participating in a study on neonatal and childhood predictors of hypertension development. Depressed nr. Initial 1049 mother-infant dyads recruited from large maternity hospital. Invited to participate following healthy birth in 1998. Exclusion nr. Demographics: Age nr; Education*-university degree 26.9% mothers,	328 (65.6%) returned questionnaires at 6 months PP.	Observational cross-sectional.	1). Center for Epidemiological Studies Depression Scale-10 (CESD-10; Andresen et al., 1994). 2). Infant Behaviour Questionnaire (IBQ; Rothbart, 1981).	Activity level; Smiling and laughter; Fear; Distress to limitations; Soothability; Duration of Orienting. Negative Reactivity (Fear + Distress to Limitations)	Approx 6 mean 6.3 (SD = 1.4 months).	1). Depression: Mothers higher scores than fathers. 2). Temperament: Maternal and paternal depressive symptoms associated with perceptions infant temperamentally more fearful, distressed to limitations and more negative reactivity. Maternal depression	Associations between depressive symptoms and perceived temperament approached significance ($p<.07$) for associations between depressive symptoms

		29.6% fathers, vocational*-50.8% mothers, 44.7% fathers, high-school*-10.5% mothers, 8.9% fathers, elementary only*-5.6% mothers, 3.4% fathers. Study participants younger** than initial sample. Infant gender*; Infant Apgar*; deviations from delivery date*.				and Positive Reactivity (Smiling and Laughter + Activity).	- perceived infant as less prone to smiling and laughing. Predictors of perceived temperament: Mothers depressive symptoms and avoidant style contributed independently of each other to perceptions of infant as more fearful.	and fear and smiling and laughter.
9. Foreman & Henshaw 2002. UK (England).	To understand how maternal perceptions are structured.	73 women recruited from larger community representative sample in another study. 9 further participants with PND recruited from depression clinic to make up depression numbers. Depressed 16. 82 total. Exclusion nr. Demographics* (Mean age 26.8, social class, infant sex (56.1% female) relationship status; previous PND (15/9%).	Not reported.	Observational cohort.	1). Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987) Scores of 9+ interviewed at home using Schedule for Affective Disorders and Schizophrenia – Lifetime version (SADS-L). 2). Maternal		EPDS: Monthly until 6. MPQ: With last EPDS at 6.	Depression impact on MPQ: The control group ratings of difficult temperament scores were significantly different than DPP and recovered group.

					Perceptions Questionnaire - developed via discussion between author and another psychiatrist. Questions which drew upon mothers' objective observations of infant (child-oriented item) and subjective feelings about infant (maternally-oriented item).				
10. McMahon et al. 2001. Australia.	1). To compare maternal mood state and infant temperament of admitted mothers to matched control. 2). To	128 mothers admitted to residential parent craft hospital. Depressed 54. Age: Residential 31 years; control 32 years. All first time mothers of singleton child </= 4mth. (80% uptake in study). 58 mothers demographically matched group. Recruited	Not reported.	Observational cohort.	Obstetric history: Clinical interview. 1). Edinburgh Postnatal Depression Scale (EPDS; Australian validation-Boyce et al.,	Approach; Rhythmicity; Cooperation-Manageability; Activity-Reactivity; Irritability. Easy/Difficult score computed	EPDS: 11 wk (residential group); 18 wk (control). CIDI only for residenti	Depression: Residential group scored higher on EPDS. Infant Temperament: 1). residential group rated infants significantly more difficult than control (20%vs5%). 2).	Non-significant trend more residential care infant spent time in neonatal intensive care.

	explore differences within the residential care group according to diagnosis of depression.	through obstetrician in practice with same postcode as residential site. Already participating in a larger study. Demographics*: mean age residential 31, comparison group 32; Delivery (28% caesarean).			1993) cut off not stated; Composite International Diagnostic Interview (CIDI; WHO, 1997) identifying symptoms fitting DSM-IV Major depressive disorder and minor depressive disorder. 2).The Short Temperament Scale for Infants (4-8 months of age) (STSI; Oberklaid et al., 1986).	from approach, cooperation-manageability and irritability scores.	al group infant age 4months. STSI: Both groups infant 4mth.	Mean infant difficulty scores between residential group significantly higher than control. 3). Significant differences (higher scores) between residential and control groups for irritability and cooperation/manageability dimensions. 4) Control group stronger between EPDS ratings and infant difficultness.	
11. Edhborg et al. 2000. Sweden.	Investigate if maternal PND influences parents' perception of infant temperament.	434 women and partners. Depressed 2 month 22, 12 month 9. Contacted after 30 weeks pregnancy from 6 maternal health centres. Age mean 29.1 years. 48% Primiparous. Exclusion: not	304 mother and father pairs at 2 months and 238 mother-father pairs at 1 year	Observational cohort. 2 reminders sent.	1). Swedish validation (Wickberg, 1996) of Edinburgh Postnatal Depression	Fussy-Difficult; Dull; Unpredictable.	1). EPDS: 2 and 12. 2). ICQ: 2 and 12 follow-up.	Significant differences between families with depressed mother (high difficulty rating) vs. non-depressed mother for	Mothers' perceptions temperament 2 months significantly related to stress in

		stated. Demographics* at 2 month assessment. Mean age 29.1. 96% married/cohabiting; infant sex (48% female);.48% primiparous.	follow up. 66 drop-out.		Scale (EPDS; Cox et al., 1987) D threshold 12/13. 2). Infant Characteristics Questionnaire (ICQ; Bates et al., 1979). Authors shortened scale from 24 to 16 items.			Fussy-Difficult at 2 months.	parenthood but not PND at 12 months.
12. Albertsson-Karlgren et al. 1999. Sweden.	1). To establish what extent a severe mental disorder (maternal) may affect the expectations of and reports of infant temperament. 2). Explore differences between mentally ill vs. somatically ill vs. healthy	14 ‘mentally ill’ women hospitalised, depressed 11; 24 somatically ill women hospitalised; 76 healthy controls in ongoing University family project. Demographics* except group differences level of schooling** Age 28-40. Infant sex (57.9% female).39.5% primiparous. Controls matched on parity and infant sex.	Not reported in text. Tabulated: Control 76 - >73 at 15months. Psychiatric sample and somatic sample no attrition.	Observational Cohort.	1). Mental Health: Symptoms Checklist - 90 (SCL-90) mentioned in discussion but not in measures section. 2). Baby Behaviour Questionnaire (BBQ; Hagekull & Bohlin, 1981); Toddler Behaviour Questionnaire (TBQ;	Regularity°; Approach-Withdrawal°; Manageability°. Difficultness - composite score of °.	1). Mental health: Not reported but presumed on admission to hospital. 2). Temperament: BBQ - infant 4-8; TBQ-	Infants in psychiatric sample rated as more difficult (Manageability; Approach-Withdrawal; regularity) than somatic and control groups at 10 months (TBQ10). Expectations of infant temperament rated by mentally ill and somatically ill mothers were less predictive of actual temperament	TBQ15: Psychiatric group had lower scores for all dimensions of infant temperament*.

mothers regarding predicting infant temperament behaviour from expectations of such behaviour.	Goldsmith, 1994). 3). Parent Expectation Questionnaire for early Infancy (PEQ-E; Hagekull & Bohlin, 1990) based on BBQ items; PEQ 10 and 15 months based on items from TBQ.	infant 10 and 15; PEQ early - 1-6; PEQ10/ 15 - infant 8 and 12. Interven tion n/r	compared to controls. BBQ - infants rated more regular in psychiatric group. TBQ10: infants of mentally ill women show more withdrawal in new situations vs. control/somatic group. PEQ15: Psychiatric sample 15 months - significantly lower ratings vs. somatic and control groups for expectations of and reports of manageability. Psychiatric group: significant correlation between expectations and ratings of Manageability (PEQ15 and TBQ15). Control group significantly predicted all behaviours (PEQ10-TBQ10; PEQ15-TBQ15).

13. Sugawara et al. 1999. Japan.	To investigate relationship between maternal depression and infant temperament in Japanese population.	1329 women. Depressed nr. Recruited from antenatal clinic in hospital obstetric department. Non-random sampling. Exclusion: 12+ week's gestation at recruitment. Demographics* analysed whether significant predictor PND. Age 17-42years mean 27.9. (M=27.9). 48.3% primiparous.	At 5 day follow up n = 1108 dropping to 615 at 18 months. Attrition analyses between drop-out and participants found drop-outs had significantly lower educational attainment ($p<0.01$).	Observational. cohort.	1). Zung's Self-Rating Depression Scale (SDS; Zung, 1965. Validated Japanese population: Kitamura et al., 1994). 2). Japanese version (Sato, 1983) of Revised Infant Temperament Questionnaire (RITQ; Carey & McDevitt, 1978); the Toddler temperament Scale (TTS; Fullward et al., 1984).	5 dimensions extracted from RITQ and TTS: fear of strangers and strange situations; frustration tolerance; rhythmicity; attention span and persistence; audiovisual sensitivity.	1). Depression: 5 days; 12. 2). Temperament: 6 (RITQ); 18 (TTS).	Temperament: Rhythmicity (33.1% Variance at 12 months; 26.5% at 18 months), and Attention Span and Persistence (31% Variance at 12 months) showed reciprocal relationships with DPP. Depression: Unidirectional effects of DPP for Frustration Tolerance (D 5 days *r* FT 6 months), and Fear of Strangers and Strange Situations (D 12 months *r* fear 18 months).	-

4.5 Summary of Findings

4.5.1 *Depression and infant temperament [1- 13]*

All except one study [4] found a significant relationship between mDPP and pPRiT. Four studies [5, 6, 10, 12] indicated greater general *difficulty* in infants of depressed mothers, one study [9] reported more negative perceptions of iT for depressed than non-depressed mothers, and one [5] found stability of iT *difficulty* ratings between 2 and 6 months of age. Greater depression severity was shown to be associated with more negative maternal perceptions of iT for *negative affectivity/emotionality* [2, 3], *distress to limitations* [2], *frustration tolerance* [13], *approach-withdrawal* [12,7], *cooperation-manageability* [7, 10, 12], *regularity* [12], *rhythmicity-arrythmicity* [7], *irritability* [7, 10], *cry-fuss* [6], *fear of strangers* and *strange situations* [13], *withdrawal* in new situations [12], and *falling reactivity*/*reducing arousal-level* [2].

Studies investigating both maternal and paternal perceptions of iT in the context of mDPP found greater general infant *difficulty* [11] with increased mDPP severity, and more negative ratings of iT for the dimensions *intensity* [1], *mood* [1], *negative reactivity* [8], *fear* [8], and *distress to limitations* [8]. Infants of depressed mothers in study 8 were rated as having reduced *positive affectivity*, showing less smiling and laughing.

Study 4 found no correlation between maternal or paternal iT ratings at 3 months post-natal, with infant temperament explaining less than 1% of the variance of maternal depression, and although maternal and paternal ratings of iT correlated, fathers rated infants significantly more *difficult* than mothers. Another two studies found no

significant association between mDPP and iT ratings for *duration of orienting* or *soothability* [2], and *activity-reactivity* dimensions [7].

4.5.2 *Directional effects of depression and temperament [1, 3, 6, 8, 13]*

Only two studies explicitly explored the directional effects of the relationship between mDPP and pPRiT, with study 1 finding presence of mDPP to predict *difficult* iT (e.g. higher infant *mood* and *intensity* scores), however, no iT to parent depression effects were found. Another study [13] found reciprocal relationships between mDPP and pPRiT for iT dimensions *rhythmicity, attention span* and *persistence,* additional unidirectional effects were found with mDPP predicting reduced *frustration tolerance* and increased *fear of strangers* and *strange situations*. Three other studies [3, 6, 8] indicated mDPP influenced negative perceptions of iT, including *negative emotionality* displayed by the infant [3].

4.5.3 *Depression, temperament, and intervention or treatment outcomes [4, 6, 7, 10, 12]*

Of the five intervention or in-patient studies, one [6] explored the outcomes of psychosocial intervention on pPRiT and severity of mDPP and three explored ratings of *difficult* infant temperament following maternal in-patient stay [7, 10, 12]. One study [4] reported assigning mothers to either a control group (i.e. information given regarding healthy eating) or a sleep improvement intervention program, but no details of data analysis or outcomes were reported (see 4.5.1 for main outcomes). Only two studies [6, 7] explored the effects of intervention or inpatient stay on mDPP and pPRiT, and neither study 10 nor 12 conducted analyses to explore whether treatment or inpatient stay improved negative ratings of iT.

One study [6] compared Turkish depressed mothers undergoing psychoeducational intervention, and depressed mothers in treatment-as-usual group with non-depressed mothers, finding higher scores of iT *difficulty* for all assessment points for the depressed mothers, although those in the intervention group had significantly lowered *difficult*y scores post-treatment. Another study [7] found maternal ratings of iT on admission to a mother and baby unit were significantly higher than population norms for *approach-withdrawing*, *rhythmicity-arrythmicity*, *cooperation-manageability*, *cry-fuss* and *irritability* dimensions. Temperament ratings appeared stable over time, with most temperament dimensions (except *irritability*) rated significantly higher six months post-discharge; findings unaccounted for by infant behaviour as ratings of infant *cry-fuss* reduced one month after admission. A non-significant trend was found for maternal reports of fatigue at six months post-discharge potentially explaining the increased iT scores at that time-point.

Study 10 found residential group mothers scored higher on depression measures and reported higher mean infant *difficulty* ratings and significantly higher scores for the *irritability* and *manageability/cooperation* dimensions than control group mothers. Additionally, strong correlations were found in control group mothers EPDS scores and ratings of infant difficultness, with higher scores corresponding with higher *difficulty* ratings.

Study 12 found statistically significant group differences for iT ratings between women hospitalised with somatic illnesses (e.g. tumours), mothers with a variety of mental health problems (e.g. depression, depression with psychosis) and healthy controls, with 10 month old infants of women in the mental health group showing more *withdrawal* in new situations.

4.6 Study Quality

Quality is compromised for a number of studies due to various methodological limitations (e.g. sample size, sampling procedures, attrition, demographics) potentially limiting the validity of the findings.

4.6.1 *Sample size*

Sample size and study power potentially introduced bias to the outcomes. None of the studies reported a priori power calculations, therefore studies in the current review were deemed underpowered if samples had less than 25 for correlation studies and less than 50 for studies using t-tests or ANOVA, and are based on 0.5 effect size and power of 0.8 (Cohen, 1988). Using these criteria, studies 2, 4, 5, 6, 9, 11, 12 were underpowered for the statistical analyses undertaken.

The majority of studies demonstrated uneven distribution of participants between groups increasing within-group homogeneity, thus study generalisability may be limited. Three studies [3, 8, 13] did not report the number of participants experiencing mDPP within the total sample, and four studies [2, 6, 11, 12] had six or less participants for the mDPP group. One study [6] in particular was extremely unequal in distribution for the mDPP sample (n=3) compared with the non-depressed group (n=65) at the twelve-month assessment point, which may possibly explain the non-significant result between iT and mDPP at this time.

Recruitment procedures and responses may have introduced further bias; eight of the studies used convenience sampling from either childbirth education classes [4],

maternity hospitals, obstetricians offices, or health-centres [2, 5, 8, 11, 13] well-baby visits [6], and one study conducted purposive sampling from depression clinics [9].

Additional recruitment methods included targeted advertising in parent and baby publications, newspapers or hospital websites [2, 3], and three studies [7, 10, 12] recruited individuals admitted to mother and baby, residential or hospital units which may limit generalisability to community samples. Study 12 included mothers with bipolar depression or psychotic depression in the mDPP group and so any significant findings may not be directly attributable to mDPP alone. As some studies included treatments, bias may have been introduced by participants seeking treatment, as a recent study has shown participants demonstrate motivation to take part in studies which involve psychotherapy (Andresen, Wilson, Castillo, & Koopman, 2010).

Another source of potential sampling bias relates to six studies [2, 3, 4, 5, 6, 13] applying inclusion (e.g. age, depression status) or exclusion (e.g. prematurity, congenital problems) criteria for entry to the study. One study [1] reported no exclusion criteria, and studies 7, 8, 9, 10, 11, and 12 did not report this data.

4.6.2 *Attrition*

The majority of studies reported attrition rates, with only three studies [4, 9, 10] not reporting within the study and study 1 stated attrition information was available online, but on further investigation, was not accessible. Two studies [3, 13] conducted statistical analyses on group differences between responders and non-responders with significant findings of mother responders at 12 months postnatal rating infants as having lower *regulatory control* at 8 months compared with non-responders [3]. Study 13 found significantly lower educational attainment in participants dropping out of the

study, again potentially limiting generalisability. One study [5] indicated that almost all participants had at least one missing data point and had 36 measurement ratings missing at the six-month measurement period, which may have compromised the validity of the findings.

4.6.3 *Demographics*

Additional sources of bias relate to sample demographics, as a number of the reviewed studies recruited from one site thereby limiting the geographical spread of the sample. One study [13] may have introduced bias due the possible exclusion of non-working Japanese unable to access the centre due to having no private healthcare. Of the four studies reporting ethnicity [1, 2, 3, 5], between 65.2 to 97 per cent were Caucasian males or females which may limit generalisability of the results to other ethnicities.

Nine studies used a control or comparison group, of which two studies [10, 12] used matched controls, two [4, 9] used community samples, and two [2, 7] used population norms. Two studies [5, 11] compared depressed and non-depressed mothers from the same sample, and one [8] compared father and mother ratings of iT.

4.6.4 *Measurement*

4.6.4.1 *Depression*

The majority of studies employed at least one standardised measure with known reliability and validity; however, responses to self-report measures may be influenced by respondents' social desirability, denial, or and respondents may have over-reported to maintain access to services. Two studies [1, 11] used the Edinburgh Postnatal

Depression Scale (EPDS) as their only measure of mDPP (cut-off indicating depression = >12).

Five studies [3, 4, 8, 12, 13] used one mood measure for the study. One study [3] used the Beck Depression Inventory-II (BDI-II; Beck et al., 1996) only, and three studies [6, 9, 10] employed standardised clinical interviews following the EPDS. Two studies employed the EPDS followed by one other mood measure [5, 7]. One study solely used the Predictors of Postpartum Depression Inventory-revised (PDPI-R; Beck, 2002; Beck, Records, & Rice, 2006) [5] to assess for mDPP and iT. One study [12] used no depression measures for either control or somatic illness groups so presence of depression cannot be assured, limiting the validity of the findings.

4.6.4.2 *Infant temperament*

One study [5] did not employ a standardised iT measure, using instead a measure primarily assessing mDPP which included temperament related questions e.g. ‘would you consider your baby irritable or fussy?’Another [4] measured iT using an investigator-developed questionnaire which was only assessed for internal consistency reliability, with no other validity tests (e.g. content, construct) conducted.

The reviewed studies assessed a considerable variety of dimensions of iT which limits the levels of inter-study comparison that can be achieved. No studies employed additional interview techniques to elicit the subjective and experiential quality of the perceptions of iT in the context of mDPP. Corresponding to the limitations of self-report measures, objective iT ratings from independent observers may have strengthened the findings.

4.6.4.3 *Assessment frequency*

Eleven studies [1-11] assessed mDPP and iT at the same time intervals, although two [3, 8] assessed at one time point only. Study 3 assessed for depression once, however assessed iT at five time points, and study 9 assessed EPDS scores six times compared to once for iT. One study [13] assessed depression and iT at five days, 12 months, six months and 18 months, respectively. Another study [12] administered neither depression nor mood measures despite there being multiple iT assessment points questioning validity as any iT and mDPP effects were based on initial clinical interview at point-of-hospital-admission only.

4.6.5 ***Control of potentially confounding variables***

Studies employed a number of methods to address bias from confounding variables e.g. significance testing of within-group differences [4, 5, 6, 8, 9, 10, 11, 12, 13], groups with matched controls [10, 12], or by applying statistical controls as part of multivariate analysis [5].

Significance between groups was identified in two studies: Study 5 found significant results between lifetime physical abuse and anxiety for the depressed group which was controlled for in analysis; and, study 12 found significant results for different levels of schooling, although it was unclear if this was controlled in later analysis.

The most frequently reported demographics were of participant age [2*[4], 3*, 4, 5, 6, 9, 10, 11, 12, 13], infant sex [1*, 2*, 3*, 4, 8, 9, 11, 12], parity [2*, 5, 6, 11, 12, 13],

[4] No statistical analysis between groups conducted or reported.

marital status [3*, 4, 5, 9, 11], education level [1*, 2*, 3*, 6, 8, 12] and ethnicity [1*, 2*, 3*, 5].

Study 7 only reported infant age* and only one study reported employment status [6], iT [4], whether it was a planned/unplanned pregnancy [5], birth complications [5], infant apgar [8] or previous DPP [9]

Only two articles [6, 10] reported the participants' use of anti-depressant medication, although this was not controlled for and thus may have affected maternal ratings of iT for some participants (e.g. increased positivity: Harmer, Hill, Taylor, Cowen, & Goodwin, 2003). The described limitations may have impacted on the findings as group differences in the dependent variables may be attributable to socio-demographics or other confounds and not to mDPP/iT.

5 DISCUSSION

The current review aimed to systematically appraise the quantitative literature examining the relationship between maternal depression in the postnatal period and parental perceptions or ratings of infant temperament. In particular, articles focusing on parental ratings of infant temperament were used to answer three questions. Firstly, what is the relationship between parental ratings of infant temperament and maternal depression in the postnatal period? Secondly, are there any significant directional effects of maternal depression in the postnatal period on parental ratings of infant temperament? Finally, are there significant changes in parental ratings of infant temperament (pPRiT) following treatment for maternal depression in the postnatal period (mDPP)?

5.1 Maternal Depression and Infant Temperament

Five studies reported significant results, finding increased negative maternal ratings of infant *difficulty* with increased mDPP severity, and one study reported more negative perceptions of iT for depressed than non-depressed mothers.

There was considerable variety of iT domains in the reviewed articles which limited comparison, although studies generally found significant results, with three associating higher mDPP severity with more negative maternal perceptions of iT for *cooperation-manageability*, two for *negative affectivity/emotionality*, and two for *approach-withdrawal*. Another two studies found increased infant *irritability* to be significantly associated with increased mDPP. Additional findings included increased infant *distress to limitations*, *frustration tolerance*, *rhythmicity-arrythmicity*, *cry-fuss*,

fear of strangers and *strange situations*, and reduced *regularity*, *reactivity*/*reducing arousal-level* and *positive affectivity*.

The findings correspond with earlier reviews (Beck, 1996; Mayberry & Affonso, 1993) and research suggesting the infants' early psychosocial environment plays a key influence on temperament development (Chess & Thomas, 1996), with presence of mDPP significantly increasing *difficult* or negative ratings of iT (e.g. Cutrona & Troutman, 1986; Mebert, 1991; Whiffen & Gotlib, 1989).

However, there were findings that did not support the link between mDPP and iT as no correlation was found between mDPP and negative iT ratings in one study [4], although this may be due to the iT measure being investigator-devised and lacking formal validity or reliability testing.

Two studies found no significant association between mDPP and iT for *duration of orienting* or *soothability*, and *activity-reactivity* dimensions, the latter supporting previous findings whereby infant *reactivity* has been associated with prenatal anxiety and depression but not mDPP (Davis et al., 2004).

Previous reviews called for more studies exploring fathers' perceptions of iT, however, few of the reviewed studies investigated this or assessed for paternal depression. Maternal and paternal ratings corresponded in the four studies exploring both parents' perceptions of iT within the context of mDPP, reporting greater general infant *difficulty*, *intensity*, *mood*, *negative reactivity*, *fear*, and *distress to limitations*.

One study reported fathers' ratings of infant *difficulty* as significantly higher than mothers' [4] which contradicts Whiffen's (1990) findings that, despite highly correlating, mDPP significantly increased parent discrepancies on ratings of iT, with

depressed mothers reporting more negative perceptions. These elevated paternal ratings may be attributed to unmeasured effects of depression, as mDPP increases the likelihood for paternal depression (Dudley, Roy, Kelk & Bernard, 2001), and higher levels of negative paternal mood correlate with higher levels of infant fussiness (Davé, Nazareth, Sherr & Senior, 2005).

5.2 Directional Effects of Depression and Temperament

Few studies explicitly explored the directional effects of the relationship between mDPP and pPRiT. Two studies found presence of mDPP to predict *difficult* iT e.g. higher infant *mood* and *intensity* scores, reduced *frustration tolerance* and increased *fear of strangers* and *strange situations*. Three studies indicated mDPP influenced negative perceptions of iT, including *negative emotionality*, however, one study found no significant effects of infant induced variables on mDPP.

These findings correspond with the literature, with a previous study (Hart, Field, & Roitfarb, 1999) finding that depressed mothers viewed infants more negatively at birth than did examiners, compared to one month after birth when depressed mother and observer ratings were both negative and in agreement. Negative maternal perceptions were found to predict infant temperament, with infants rated as more negative with lower ratings on state organisation, increased fussiness, poorer abilities to respond to social stimulation, and weaker coping and self-soothing skills (Hart et al., 1999). One study's findings of the reciprocal relationship between the iT dimensions *rhythmicity*, *attention span* and *persistence* and mDPP corroborated Thomas and Chess's (1977) proposal of iT to be influenced by the reciprocal nature of the parent-child relationship.

These directional effects relate to research finding depressed mothers to be less sensitive, responsive and often more intrusive in their interactions with their infants (Murray, Fiori-Cowley, Hooper, & Cooper, 1996), all of which have been shown to influence negative iT classification (Belsky, Crnic, & Woodworth, 1995; Calkins, Hungerford, & Dedmon, 2004).

5.3 Infant Temperament and Treatment or Intervention

Only two of five mDPP intervention studies reported analysis of the outcomes of treatment on iT ratings, with one finding significant improvement in maternal ratings of iT post-treatment compared to another finding persistently negative ratings on the majority of iT dimensions (except *irritability*) post-discharge. Given the limited number of studies assessing treatment effects on iT and the equivocal findings, further investigation is warranted before conclusions can be drawn.

5.4 Quality Assessment

A number of factors limited the quality of the reviewed studies as the power of the conducted statistical analyses was reduced due to small sample size for seven of 13 studies, with studies demonstrating uneven distribution between participant groups. Sampling and recruitment bias (e.g. geographical region, Caucasian ethnicity, treatment-seeking) also reduced quality.

Previous reviews called for a multimethod approach to assessment of iT (e.g. maternal and paternal self-report, independent observer) to improve the quality of studies and to establish whether ratings of iT represent actual infant behaviours rather than distorted maternal cognitions (i.e. depression-distortion effect) (Richters &

Pellegrini, 1989). Four studies included father ratings of iT, with three finding significant results, however as previously discussed, paternal depression may be associated with mDPP which may have influenced paternal self-report measures. Consequently, attributing ratings of iT to actual infant behaviours in the reviewed studies may be unfounded. Further research using additional raters (e.g. independent observers) is required to both improve study quality and clarify the existence of these effects.

The reliability of depression measures used in previous studies was questionable (Beck, 1996; Mayberry & Affonso, 1993) particularly with the BDI due to poor sensitivity for assessing mDPP. Only one study used this as a lone measure for mDPP, however, use limits the validity of the findings as iT ratings of individuals experiencing lower severity of mDPP may have not been adequately represented in the study. Similar concerns relate to the validity of the EPDS as a measure of mDPP, as the EPDS comprises an anxiety component as well as a depression component (Brouwers, van Baar & Pop, 2001). Additionally, the EPDS does not differentiate adjustment disorder or minor depression, nor does it distinguish mothers who are solely experiencing anxiety from those experiencing mDPP (Rowe, Fisher & Loh, 2008), thus any significant results may be attributable to other mental health problems aside from depression.

Beck (1996) reported previous methodological difficulties including lack of longitudinal designs and disparate data collection points. The majority of studies in this current review addressed these issues of quality, although future studies could improve quality by increasing mDPP and iT assessment frequency.

The control of potentially confounding variables is another area diminishing study quality as Mayberry and Afonso (1993) indicated other dependent variables (e.g. maternal employment, marital status) might explain some of the relationship between mDPP and iT. Employment status was controlled for in study 6 and marital status was reported by five studies, with four applying statistical controls. While the majority of studies included statistical controls for potentially confounding variables, a proportion only reported a few demographic variables. Two articles reported use of anti-depressant medications despite use possibly affecting maternal temperament ratings for some participants (e.g. increased positivity: Harmer, et al., 2003). Withholding treatment would be unethical, yet reporting the use of medications is necessary to explore possible group differences. Future studies would benefit from controlling and reporting these confounds more comprehensively to establish any significant effects.

Comorbidity of anxiety and depression was rarely acknowledged or assessed and further limits the quality of the studies, as up to fifty per cent of depressed postnatal women also experience clinically significant anxiety (Ross, Gilbert Evans, Sellers, & Romach, 2003). Only two studies assessed for additional psychopathology (e.g. state-trait anxiety), with study 10 finding maternal anxiety more highly correlated with ratings of *difficult* iT than depression. Given this finding, the significant finding between mDPP, *difficult* iT, or negative iT dimensions cannot be conclusively established, and inclusion of other mood measures in future studies would establish additional links between mDPP and iT.

Finally, few studies accounted for prenatal factors, which may limit the findings of the review. Prenatal maternal stress, anxiety and depression have been found to be predictive of iT, with infants displaying more *fearfulness* or *behavioural inhibition*

(Davis et al., 2007), increased infant *fussiness* and negative behaviour (de Weerth, van Hees, & Buitelaar, 2003), and *negative reactivity* even after controls were placed for postnatal maternal psychopathology (Davis et al., 2007); all dimensions of iT linked with mDPP by studies in this review. Additionally, parental expectations in pregnancy have been found to significantly predict iT independent of parental anxiety or depression in the postnatal period (Mebert, 1991).

Few studies assessed or controlled for prenatal maternal anxiety, depression or expectations, with one study [2] recruiting participants with depression in pregnancy although no statistical analysis was reported. Study 4 found prenatal depression predicted mDPP, however no significant results between prenatal depression and ratings of iT were reported. Given the associations between prenatal maternal anxiety, depression, and expectations with negative perceptions of iT and the lack of reviewed studies taking this into consideration, the reliability of the findings of the relationship between mDPP and iT are questionable.

5.5 Further Investigation and Clinical Utility

Given the findings from the current and previous reviews (Beck, 1996; Mayberry & Affonso, 1993) and the discussed methodological limitations, future studies could address quality issues by utilising a multimethod approach for iT assessment and multiple assessment points within longitudinal study designs. Greater clarity and consensus on the measurement of iT domains is also required to enable clearer synthesis of the evidence. Major limitations in the control for potentially confounding variables (e.g. prenatal psychopathology, comorbidity, medication effects) need to be addressed

by future studies to allow for clarification of the effects of mDPP on pPRiT. Given the limited number of studies assessing treatment effects on iT and the equivocal findings, further investigations may elicit evidence supporting the development of interventions to reduce negative perceptions of iT and any associated deleterious outcomes on infant development. Although studies have started to include fathers' perceptions of iT in the context mDPP, they were still widely under-represented and future studies will be required to address this bias. Qualitative studies would also highlight the nuances in father-infant relationship development and may elicit further factors influencing negative pPRiT.

Despite the limitations of reviewed studies, the link between mDPP and iT is clinically relevant and suggestion of mDPP influencing negative perceptions of iT should orientate clinicians to provide further assessment and support to mothers reporting negative iT. Parenting support facilitating recognition, understanding, and management of negative iT may also be beneficial in improving infant outcomes.

Additionally, including fathers within services and clinical assessment and intervention processes may clarify any negative parental perceptions of iT and infant behaviours, and enable a holistic approach that may result in more favourable outcomes for the infant.

5.6 Review Critique

The current review aimed to review the evidence base to determine the nature of the relationship between pPRiT and mDPP, establish any potential infant-induced variables influencing the development of mDPP, and evaluate intervention or treatment on perceptions of iT, however, a number of factors may limit this review. Firstly,

selection bias towards people residing in Western countries may have occurred due to inclusion of those articles only in the English language available in full text from the University of Leicester or electronically. Due to practical constraints, it was not feasible to involve more than one researcher in the current review and an additional researcher may have minimised any potential for bias or error (NHS CRD, 2001). Additional bias may have been introduced due to the application of inclusion/exclusion criteria due to time and practical constraints, and inclusion of additional articles may have provided further support for the findings. Establishing comprehensive clarity during the synthesis of the findings was hindered due to the heterogeneity of the measures utilised in the studies. Finally, the current reviews' focus on quantitative studies excluded any richness of qualitative data that may have furthered understanding of the relationship between negative parental perceptions of infant temperament and depression.

5.7 Conclusions

The majority of the 13 studies reviewed evidenced a significant relationship between maternal depression in the postnatal period and negative ratings or perceptions of infant temperament. Few studies explicitly explored directional effects of maternal depression in the postnatal period on infant temperament, prohibiting firm conclusions. Nevertheless, the most methodologically robust study by Hannington et al. (2010), conducted as part of the wider Avon Longitudinal Study of Parents and Children (ALSPAC), found strong indications that maternal depression predicted higher child mood and intensity scores. Hannington et al. (2010) suggested that maternal depression dominated the effect on negative temperament development, as opposed to infant temperament influencing the onset of maternal depression, however, further study is warranted to confirm these interesting findings. Studies in the current review rarely

explored treatment and intervention effects of maternal depression in the postnatal period on infant temperament. Of the two studies explicitly exploring treatment effects, one study found significant improvement in maternal ratings of infant temperament post-treatment, whereas another study found persistently negative ratings of infant temperament post-discharge. Consequently, such limited and equivocal findings highlight this as an area requiring further exploration.

Given the methodological limitations of the reviewed studies and the lack of control for either comorbid or prenatal psychopathology, the relationship between infant temperament and maternal depression in the postnatal period remains inconclusive, and further studies are necessary to delineate the impact of these potentially confounding variables on parental negative ratings of infant temperament and maternal depression in the postnatal period.

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PART TWO:

RESEARCH REPORT

Fathers' experiences of maternal depression in the postnatal period:

Connecting with the child in the middle

1 RESEARCH REPORT ABSTRACT

The effects of maternal depression in the postnatal period are often felt most notably by the mother's partners and children. Previous explorations of fathers' experiences of their partner's depression have predominantly occurred outside of the United Kingdom, with few explicitly exploring experiences of father's relationships with their children in the context of maternal depression. The current study aimed to explore fathers' experiences of their partner's depression and their concomitant experiences of getting to know their child. Five fathers who were living with a partner who had experience of maternal depression in the postnatal period took part in one-to-one semi-structured interviews and transcripts analysed using Interpretative Phenomenological Analysis. The process generated seven super-ordinate themes as significant in reflecting the fathers' journeys: Their ruminating to make sense of the depression and potential self blame; the impact on their psychological well-being; their struggles to connect with their child in the middle of the distress and resultant enforced disconnections; their agony at the collapse of their relationships; their struggling attempts to manage distress while containing their own distress and concerns for their child's safety; their finding a strategy to cope; and, coming through it with strengthened relationships, although lingering effects of the depression remained. The findings indicate that fathering within the context of maternal depression poses significant challenges to their own personal coping resources and psychological well-being, with potential effects on the infant. Fathers sometimes described their emotional disconnection and withdrawal in the early fathering period in relation to their perceived rejection by their child or by professionals. Fathers may benefit from clinicians who are able to reattribute fathering appraisals and contain fathers' concerns for the safety of their child.

2 INTRODUCTION

2.1 Background

2.1.1 *Transition to fatherhood*

Much has reportedly changed in Western cultural expectations of the fathering role in the last fifty years, with 'new' fathers now expected to actively participate in antenatal preparations and assume an active fathering role upon the birth of their child [1](Lupton & Barclay, 2007). Lamb (1987; cited in Fitzgerald, Mann, & Barratt, 1999) proposed fathering roles have developed from that of the disciplinarian, bread-winner, sex-role socialiser- focussing on play and de-emphasising routine caregiving, to that of the contemporary role of nurturer. Anderson (1996) identified three major stages in father- child relationship development, including making a commitment to invest and nurture, becoming connected and bonding, and making relational room to be physically and emotionally available. These perceptions of the stages in the journey towards their fathering selves reflect the current notion of the 'nurturing' father, potentially demonstrating how the transition to fatherhood is seen as a process of becoming 'involved'. 'Involved' fatherhood, defined as an intimate close relationship marked by emotional expression, connection and affection towards their child, has been previously associated by fathers as an exemplar of 'good' fathering (Dermott, 2003). Given the notion of fatherhood as a process of becoming involved, it is of interest how this is experienced within the context of additional intra-familial factors, for example, maternal depression in the postnatal period. Such exploration is pertinent, given that the concept of the 'new' or 'involved' father has been purported to be perpetuated by

[1] For brevity, *child* is used in this document as a term to include infant, baby, as well as older child, unless specified.

professionals with potential costly effects on marital and emotional well-being (Everingham & Bowers, 2006).

2.1.2 *Maternal depression and the family*

Maternal depression in the postnatal period[2] is reported to have significant detrimental effects on familial relationships including increased likelihood for the formation of insecure attachments and psychopathology for the child and increased marital disharmony for the partner (Burke, 2003). Partners living with a spouse experiencing depression in the postnatal period have also been found to be significantly more likely to report depressed mood than the general population (Benazon & Coyne, 2000). Additionally, Bielwska-Batorowicz and Kossakowska-Petrycka (2006) found that the most important correlates for fathers becoming depressed included high discrepancy between fathers' prenatal expectations and the actual reality of experiences following the birth of their child.

The ability of fathers to support their partners with the practicalities of childcare has been found to be of positive influence on mothers' depressive symptomatology (Smith & Howard, 2008), however, partners of women with depression have reported increased levels of aggression (Roberts, Bushnell, Collings & Purdie, 2006), and it is likely that elevated levels of psychological distress and aggression will reduce fathers' levels of supportive engagement within the family or fathering involvement. In addition, depression has been proposed to increase negative parental perceptions of infant temperament (Hannington, Ramchandani, & Stein, 2010), and increase negative maternal evaluations of an infant's intentions (e.g. stating infant behaviours are

[2] *Depression* will be used to refer to maternal depression in the postnatal period unless stated.

manipulative: Lundy, 2003) which may negatively impact on early father-child relationship formation. Goodman (2008) suggested that depression hinders the development of positive and fulfilling father-child relationships and resultant interactions, a finding directly contradicting other studies, suggesting that fathers act as a buffer for the detrimental effects of depression on the infant (Hossain, Field, Gonzalez, Malphurs, Del Valle & Pickens, 1994). Fathers play an instrumental role in supporting positive developmental outcomes for children and well represented within the literature (Lupton & Barclay, 1997) with secure father-child attachment positively influencing children's social development and behaviour (Verschuren & Marcoen, 1999). Given the potential negative effects of depression on fathers' interactions with their children, and fathers' valuable contribution to childrearing, it is of clinical significance to explore the impact of depression on fathers and their developing relationships with their children.

2.1.3 *The current study in context*

The focus of empirical studies exploring fathers' experiences of depression is growing, and mirrors the increasing trend within the general fathering literature (Charlie Lewis, 2009: personal correspondence). Lupton and Barclay (1997) noted that much of the psychological literature relating to fatherhood transitions focuses on the premise that these transitions frequently occur as an essentially pathological process.

Previous qualitative studies have focussed on the burden that depression places on fathers, with fathers reporting increased financial difficulties due to lack of maternal employment, burden of managing additional responsibilities as a consequence of depression, increased marital discord, and negative emotional consequences of

managing depression (Boath, Pryce, & Cox, 1998). Fathers reported anxieties relating to their efforts to cope, perceptions of how their partners had changed and fearing the changes were permanent, and described their partner's illness to be out of their control and their world collapsing in on them (Meighan, Davis, Thomas, & Droppleman, 1999).

Webster's (2002) qualitative study elicited couples' reports of a lack of freedom, perceptions that they were unable to cope, and highlighted the breakdown of communications between the couple, along with desires to be seen as a family unit rather than as an isolated individual. Communication breakdown between couples in the context of depression was explored qualitatively by Everingham, Heading and Connor (2006), finding that mothers expressed low mood in relation to not feeling understood by their partners, whereas fathers described their frustrations in not being able to understand their partner's distress. Similarly, analysis of a father's focus group indicated fathers' frustrations in their efforts to handle the impact of depression and their feeling that communications were misconstrued by the partner (Davey, Dziurawiec, & O'Brien-Malone, 2006). The same study briefly mentioned fathers' reports of the negative impact of depression on their interactions with their other children, mentioned by two participants of the focus group, with one father reporting increased irritability with his children and another, that it took a long time to 'do things' given his wife's deterioration (Davey et al., 2006). Little more was indicated of the impact of depression on the father-child relationship in this study, and the study was purely phenomenological lacking interpretative analysis. Under the theme 'loss of control', Meighan et al. (1999) briefly reported participants' fears of leaving their partner alone for fear she would harm herself, the child, or be unable to care for the

child, although no specific excerpts relating to the child were reported; the child seemingly getting ‘lost’ within concerns about the partner.

In summary, qualitative research published to date exhibits variable methodological quality and has largely sampled fathers living outside of the United Kingdom. Previous findings reported fathers’ experiences of their partner’s depression, on communication difficulties experienced by couples, and the transition into fatherhood without the context of depression. The father’s relationship with the baby appears hidden; an entity separate from the mother-father dyad, with few studies explicitly exploring the relationship between the father and child. It is necessary to gain more understanding of fathers’ experiences of developing their relationships with their child within the context of maternal depression, especially as fathers can play an integral role in childrearing.

2.2 The Current Study

The current study aimed to gain better insight into the experiences of fathers within the United Kingdom (UK) living with a partner with maternal depression in the postnatal period, and additionally exploring their experiences of their developing relationships with their child. The methodological approach aimed to allow fathers’ experiences to be explored without structuring (as far as possible) fathers’ responses within preconceived categories of ‘appropriate’ fathering. It was intended that this would potentially provide a background for further research investigating the factors influencing father-child relationship development, and influence service provision by providing insight into fathering experiences and associated concerns, rather than

childbearing services providing essentially female-driven constructions of the perceived needs of fathers within the context of traditionally female-orientated services.

2.3 Research Questions

The current study aimed to explore:

1) How fathers' experience, interpret, and cope with their partner's depression; and,
2) Fathers' experiences of getting to know their child and whether they experience the depression as influencing these relationships.

3 METHOD

3.1 Study Design

3.1.1 *Overview*

A key aim of this current qualitative study was to achieve an in-depth understanding of individuals' lived experiences of the investigated phenomena (Smith, Flowers, & Larkin 2009). Lupton and Barclay (1997) proposed that previous empirical research has focussed on the pathological process of the transition to fatherhood to ensure men comply and conform to professionals' notions of 'appropriate' fatherhood (p. 50). With this in mind, the researcher utilised the qualitative approach using open questioning in semi-structured interviews and the rigour of reflection and reflexivity that ensues to allow interpretations to emerge from the data, as opposed to quantitative methods.

3.1.2 *Researcher's background and epistemological position*

The researcher in the current study was a white, English-Finnish female in her early thirties, whose choice of the study and methodology was driven by the researcher's work and clinical training, and guided by interests in early relationship formation and attachment. The researcher sought to elicit and make sense of individuals' experiences of forming relationships using a method that allowed for complexity and idiosyncrasy. The researcher liaised with clinicians based in a maternal and childbearing service which highlighted the limitations of service provision for the partners of the individuals accessing treatment there. Given the researcher's understanding of the relevance of the quality of an individual's early relationship formation with caregivers and potential links to later psychopathology, and given the

nature of the struggles of the mothers that became apparent when on clinical placement at the service, she wished to explore how fathers were experiencing and making sense of the developing relationships with their infants in the context of depression. The researcher held the 'critical realist' position, whereby the experience of reality is constructed by the individual (Willig, 2008), and considered she was embedded in the co-creation of meaning with the participant during the interview process. More specifically, the researcher viewed the interview as an interactional object (Potter & Hepburn, 2005), where 'lived' reality was reported by the participant and co-constructed with the researcher within the realms of a complex and social interview (Larkin, Watts & Clifton, 2006; Potter & Hepburn, 2005). Interviews were consequently neither viewed by the researcher as purely objective nor as a direct 'portal' to the actual reality of the participants' lives, as Potter and Hepburn (2005) suggest in their critique of qualitative interviewing, as the researcher influences the interview by action, introduction of conversational speech and terminology, and by the researcher's own perceptions, beliefs and attitudes.

3.2 Choice of Methodology

3.2.1 *Selection of Interpretative Phenomenological Analysis*

In accordance with the researcher's epistemological position[1] and the research questions, Interpretative Phenomenological Analysis (IPA) was chosen as the approach for data analysis as this approach involves detailed analysis of the lived experiences of participants with a particular focus on the meanings and personal interpretations of events in their lives (Smith & Osborn, 2008).

[1] See Appendix K for epistemological position and choice of methodology.

As Smith and Osborn (2008) state, IPA methodology combines an 'empathic hermeneutics with questioning hermeneutics' (p. 53) enabling a deep exploration of subjective experience rather than providing an explanation of the phenomena under investigation (Smith et al., 2009), and as such, the essence of variability between individual's accounts can be maintained. It is recognised within the philosophy of IPA that an individual's accounts will be shaped by their enculturation to their specific cultural and social contexts and fused with their previous experiences, as well as the interview experience itself and resultant interactions with the researcher. Accordingly, the researcher will similarly be influenced by the aforementioned factors and IPA allows for this subjectivity to context and experience within the methodological and interpretative process (Smith et al., 2009). In particular, IPA's epistemological stance proposes that through considered and rigorous application of the interpretative methodology, the researcher is able to access an essence of the participant's internal worlds and lived experiences (Biggerstaff & Thompson, 2008).

3.3 Ethical Approval

Favourable opinion was given in May 2009 by the Nottinghamshire Research Ethics Committee (NRES: Appendix B). Research Governance approval was obtained from the sponsor (Leicester Partnership Trust) and the research site. Following significant recruitment difficulties, additional changes to the proposal (e.g. study design, addition of another study site) led to further NRES approval obtained in February 2011 (Appendix C) and the additional research site in April 2011.

3.4 Sample

The five males in the current study were partners of women who were either currently experiencing or had experienced depression in the postnatal period in the last six years. The general demographic characteristics (see Table 1 below) of the participants are not presented individually in order to maintain and protect anonymity.

Demographics		Number of participants
Age:	21-30	1
	31-40	2
	41-50	2
Ethnicity:	White British	5
	Other	0
Marital status:	Married	4
	Cohabiting with partner	1
No. of children:	1	1
	2	4
Age of oldest child:	6-12 months	1
	1-2 years	0
	2-5 years	2
	5-10 years	2
Approximate duration of partner's depression in the postnatal period:		
	0-6 months	0
	6-12 months	1
	1-2 years	3
	2-3 years	1

Table 1 *Participant demographic information*

Between five and eight participants were considered to be an appropriate number for the study's methodology as small sample sizes are generally recommended for qualitative methodologies (e.g. IPA) due to the length of time taken for case-by-case analysis (Smith et al., 2009). The breadth and depth of analysis is acknowledged as a defining quality of IPA studies rather than the number of participants, and Smith (2011) indicated that studies with 4-8 participants can demonstrate quality by providing extracts from half of the participants as evidence for each theme.

3.4.1 *Inclusion criteria*

Inclusion criteria were employed to increase homogeneity of the sample, a desirable feature for IPA studies to enable a deeper analysis of the data (Smith et al., 2009). Fathers whose partner was currently accessing or had previously accessed community-based care provided by the maternal and child bearing services were the main focus for the current study. Fathers were selected on the basis that their partner had not been accessing in-patient services or had other mental health diagnoses; although these fathers' experiences are equally valuable for study, the potential differences of their partner's illness presentation and severity, and any concomitant absence from the family home due hospital admission were deemed to reduce sample homogeneity. Fathers who heard of the study by word-of-mouth and expressed interest were included providing they met the minimum inclusion criteria that they were a father, their partner had or was experiencing depression, and that they were living with their partner.

3.4.2 *Recruitment*

Recruitment was attempted following consultation with professionals in the Clinical Psychology department based within a community maternal and childbearing NHS service, however, recruitment problems occurred due to the change in the nature of the referrals, thus an additional site was added.

Professionals (e.g. nurses, clinical psychologists) from the recruitment sites identified mothers who had experienced DPP and distributed the letter of invitation to potential participants (Appendix D) along with verbal descriptions of the study, with mothers' consent presumed if they passed on the study information to their partner.

Following recruitment difficulties, a flyer (Appendix E) with greater visual accessibility was devised by the researcher for distribution.

Participants were able to register interest by contacting the researcher by email or telephone, or by giving the contact details to the professional involved to allow the researcher to contact them directly. As a consequence, six potential participants identified from the research sites and two recruited via word-of-mouth expressed an initial interest to take part in the study. After correspondence between the researcher and the potential participants, six agreed to take part, however, one did not attend for interview and no further correspondence was achieved by the researcher. Two of the five participants taking part in the study were previously known to the researcher (one directly, one indirectly) via an occupational setting.

3.5 Procedure

3.5.1 *Development of the interview schedule*

Smith et al. (2009) suggested devising interview schedules to enable the participant to provide expansive accounts of their experiences whilst minimising potentially leading influences of the interviewer's assumptions. A schedule was designed (Appendix F) with this held in mind, along with discussion with other professionals at the childbearing service, and questions generated to be open and flexible to encourage idiosyncratic narrative.

The schedule was loosely structured to move from their initial general descriptive accounts of what their partner had been experiencing to define their terms for use during the interview, and to develop rapport within the context of the potentially

difficult and emotive topic. Being flexible with the interview schedule and following the participant has been advocated for IPA studies (Smith et al., 2009) and, as the researcher followed participants' narratives, not all questions were always asked.

3.5.2 *The Interview Process*

3.5.2.1 *Interview setting*

Interviews lasted between one-and-a-half to two-and-a-half hours (mean = 2 hours) and took place at the time and place of convenience to the participant, either in a private room at an NHS site or in their homes (following risk assessment). When interviews were conducted at the participant's home, lone-working check-back procedures and safeguards were followed to maximise the researcher's safety. Participants were advised that they might feel more comfortable if their partner and child were not in close vicinity for the duration of the interview, and of the two interviews taking place in the home-setting, partners were out for the evening and the children asleep upstairs.

3.5.2.2 *Informed consent*

Participants were handed an Information Sheet (Appendix G) before commencing the interview informing them about confidentiality and limits, rights to withdraw and other ethical considerations, which were also explained verbally by the researcher. Participants were informed that taking part in the study would have no positive or negative implications regarding their partner's or baby's care or treatment within the service. The researcher confirmed participants' understanding of participation in the study and written consent was obtained (Appendix H). It was

reiterated by the researcher that, as described in the Information Sheet, they may find discussing the issues distressing and participants were advised they were able to stop the recording at any point if they wished, and where necessary, be supported in accessing support (e.g. GP, involved professionals).

3.5.2.3 *Interview process*

The researcher focussed on building rapport and making the participant feel at ease to create an environment where they felt able to be open in discussing their experiences: participants were offered tea and cake to further welcome them and foster a casual atmosphere.

General demographic information about the participant was obtained (Appendix I) and interviews commenced, recorded by digital voice recorder, and participants were debriefed at the end of the interview to assess for any distress or concerns generated from the interview. Participants were offered a £10 book voucher on completion of the interview to thank them for their time and effort that they gave to the study, and were given the researcher's details for them to contact her if questions or concerns arose following interview.

3.5.2.4 *Interview quality*

It is likely that participants in the current study would have come into contact with other professionals from mainly female-dominated services delivering their partner's care, and these experiences may have either positively or negatively influenced their perceptions of, and interactions with, a female researcher working within the NHS. Everingham and Bowers (2006), for example, suggested that professionals perpetuate

the notion of 'involved' fathering, and such potential participant preconceptions may have inadvertently influenced the interview interaction and dynamics between the female researcher and male participant, and impaired the quality of the data produced within the interview (e.g. participants withholding or concealing thoughts or behaviours related to fathering). Additionally, given the potentially emotionally evocative topic of study, it was postulated that participants may consciously or unconsciously conceal, minimise or defend against their accounts to hide aversive or potentially shameful experiences generated in the interaction. To maximise interview quality and to facilitate generation of each participants' *gestalt* (meaning-frame: Holloway & Jefferson, 2002; p. 34), the researcher attempted to adhere to Holloway and Jefferson's (2002) approach on working with defended subjects as follows:

Using open questions: the interview employed the use of open questioning as far as possible within the constraints set by the research questions; an approach advocated by Smith et al. (2009);

Elicit stories: prompts within the interviews to elicit participants' concrete accounts and memories of actual events. By eliciting stories, the researcher was able to focus the interview on particular stories and explore meanings for the participant;

Avoid why questions: the researcher attempted to withhold 'why' questions during the interview to reduce the possibility of participants' intellectualising or abstracting from their experiences; and,

Following up using respondents' ordering and phrasing: the researcher's attempt to attentively listen and occasionally note-take to later refocus the participant and elicit greater depth.

3.6 Data Handling

3.6.1 *Transcription*

Recordings of each interview were transcribed[2] verbatim consistent with IPA methodology including spoken words, and any notable non-verbal utterances (e.g. sighs, laughter, pauses and hesitations). Three transcripts were randomly selected to be professionally transcribed and the researcher checked these for accuracy upon their return. Professional transcription was deemed undesirable by the researcher due to the benefit of transcribing on the familiarisation and immersion in the data; however time constraints precluded her preferred approach.

3.6.2 *Analysis*

The researcher engaged in multiple readings of the transcript along with listening to the original recording to become familiarised with the transcriptions. An inductive approach was taken to the analysis with the aim of entering each participant's psychological world without initially prioritising any part of their story (Smith & Osborn, 2008). Any instinctual reactions to the data and any emotional responses or recollections of the interview were noted on the text. Throughout the process, the researcher aimed to stay close to the participant's descriptions and meanings to aid rigour and minimise any potential bias of interpretations based on the researcher's expectations (Smith et al., 2009). On the data that the researcher required further clarity, she de-contextualised the data by breaking the narratives flow by reading one sentence at a time in a backwards fashion (deconstruction: Smith et al., 2009). This aided the

[2] Transcripts are provided as an Addendum to the research report.

researcher's focus and assisted with elucidating the participant's meaning without getting absorbed in a superficial reading.

Three levels of analysis (e.g. see Table 2 below) were conducted, working through each transcript systematically line-by-line, as recommended by Smith et al. (2009). Firstly, descriptive comments were made about *what* the participants' said, followed by linguistic comments about *how* the participants delivered their accounts. Finally, conceptual or interpretative comments were made, especially considering *why* the participant spoke about the issues. Emergent themes reflecting the interpretation of the participants' meanings were identified, compared and gathered into super-ordinate categories in a reflective, cyclical and evolving interpretative process.

Emergent themes	Original transcript	Descriptive, linguistic and interpretative comments
Depersonalisation/disconnection Disconnection of emotional-self Coping	*"I remember Eve being asleep and it was, Violet was crying. I remember many a time just typing like this and baby's down there. Violet in, in the chair and I'm rocking it with my foot and looking at the screen [mimics movements]... typing [laughs] [...]I'm trying to do what's right for Eve give her the rest she needs...still crack on and do childcare"*	1. Frequent multi-tasking 2. Repetition 'remember'- is he distancing himself and reiterating this was a past event? 'It'-non-human/object. Self-corrects with Violet – is he moving past→present experiences of child-use of present tense 'I'm rocking' mimicking. 3. Struggling to cope–*Why* is he able to switch off to concentrate on work? in context of whole transcript e.g. self re-development, learned emotional-regulation by disconnecting. Emotions too overwhelming so distances?

Table 2 *Example of data analysis from Rich's interview.*

3.6.3 *Quality checks*

The researcher attempted to ensure methodological quality by following Yardley's (2000) quality criteria throughout the research process, described as follows:

Sensitivity to context: the researcher aimed to demonstrate sensitivity to context from the beginning of the research process. The existing literature on the topic and associated areas was thoroughly researched and clinical skills applied during the interview process. The researcher became immersed in the data and grounded any analytic claims by the provision of evidence (e.g. data tables, quotations) and relevant literature;

Commitment and rigour: the researcher was committed throughout the research process to ensure quality of data collection, and that the participant was provided with a quality interview. Rigour was demonstrated by means of assuring sample homogeneity, and ensuring quality measures were adhered to throughout data collection, analysis, and write-up, including application of Smith's (2011) quality criteria stipulating that half of the participants demonstrate evidence for each theme;

Transparency and coherence: these were both highly considered and applied during research design, practice, analysis, and write-up. Facilitating and gaining coherence of the participants' stories was particularly prominent for the researcher during interview and data analysis, to deliver an emotionally processed and coherent account of lived participant experience; and,

Impact and importance: the current research study was both novel to a UK population and of considerable clinical interest and utility, given that fathers are

traditionally under-represented in the literature relating to familial coping with maternal depression in the postnatal period.

Additional quality checks were made by utilising an IPA research methodology peer supervision group to assist with triangulation of the data. Excerpts of coded data were cross-checked with members of the group to ensure initial analytic coding remained close to the data. More detailed quality checks were possible by presenting coded transcripts to the clinical supervisor for fuller review and discussion in supervision. Both of these methods aided in the researcher's 'reflexivity'- or her detailed and controlled reflections, analysis, and management of her pre-reflections (Smith et al., 2009) or pre-understanding (Finlay, 2008) of the research, including interview interactions and analysis. These pre-reflections are known to be particularly influenced by the researcher's cultural and historical background (Shaw, 2010), and consequently supervision was vital in facilitating such researcher reflexivity.

3.7 Ethical Considerations and Safeguards

In addition to gaining ethical approval and ensuring informed consent, the safety and well-being of the child was paramount. Child protection concerns arose in one interview which led the researcher to review limits of confidentiality with the participant during the interview and later verbally assess levels of risk to the child during debrief. A recommendation was made to the participant to discuss these concerns, had they not already done so, with the professionals involved and/or their GP. Telephone supervision between the researcher and clinical supervisor took place following the interview where the levels of risk were deemed to be low. As discussed in

supervision, given the low risk and the researcher's advice to the participant to access the involved services, no further action was taken.

4 RESULTS

4.1 Overview of Themes

A total of 28 themes emerged from analysis which were then organised into seven super-ordinate themes (see Table 3 below).

Superordinate themes	Themes
Ruminating about the depression	Desperate searching to understand Fear of permanence The self as instigator
Psychological impact of the depression on the self	Yearning and loss of the past Isolation and withdrawal Exasperation Erosion of the emotional self
Connecting with the child in the middle	Shock: the dichotomy of the imagined and living reality Struggling with enforced disconnections Mentalising the child Feeling the love and feeling adored Investing in the fathering ideal
Agony and collapse of the known relationship	Yearning for affection and the guilt of desire Misery of the home Contemplating the end Finding a cause for the collapse
Struggling in the midst of it	Loss of the competent wife Terror and concern for the baby The turmoil of being unprepared and uncertain Distress at managing distress
Adopting a strategy to cope	Containing the family in crisis Compartmentalising relationships Disconnection and concealment Defending the self Changing the self and negating personal needs Seeking support
Coming through	Enhanced self-awareness and strength Living with the lingering scars

Table 4 Table of themes.

The seven superordinate themes emanating from the analysis represented participants' journeys through their partner's depression, including initial onset, and their personal understanding and management of the depression. Analysis was

influenced by the researcher's aim to represent all of the themes between partner and child as inter-connected, given that much of the previous literature separates the family into dyads - either marital or parent and child - a feature that has been previously criticised by other mothers and fathers in research conducted by Webster (2002). This led the researcher to define the superordinate theme *Connecting with the child in the middle* as the core unifying theme, as participants' attempts at relationship formation with their child were influenced at all times (either facilitated or challenged) by the factors arising in the other superordinate themes representing each stage of their journeys. Participants' journeys began with their initial ruminative thinking as to the cause of the onset of their partner's depression, and moved systematically through to their representations of the profound effects of the depression on their well-being and their relationships, the experiential effects of struggling with the depression, and the ways in which participants learned to manage the multifarious effects of the depression. Finally, participants' accounts were analysed as moving into a more reflective and summative mode, reflecting the final stages of their journey through the depression, which again was interrelated to the core unifying theme, as fathers often reported stronger relationships with their children as a result of increased contact and involvement with their care. The described symbiotic relationships between the themes are represented diagrammatically in Figure 1, below, with the shading fade-out representative of the pronounced interrelationships between the core superordinate theme and the other superordinate themes. For clarity, the 28 themes were not included in the diagram, however, each theme within its related superordinate theme also represented participants' movement through the depression.

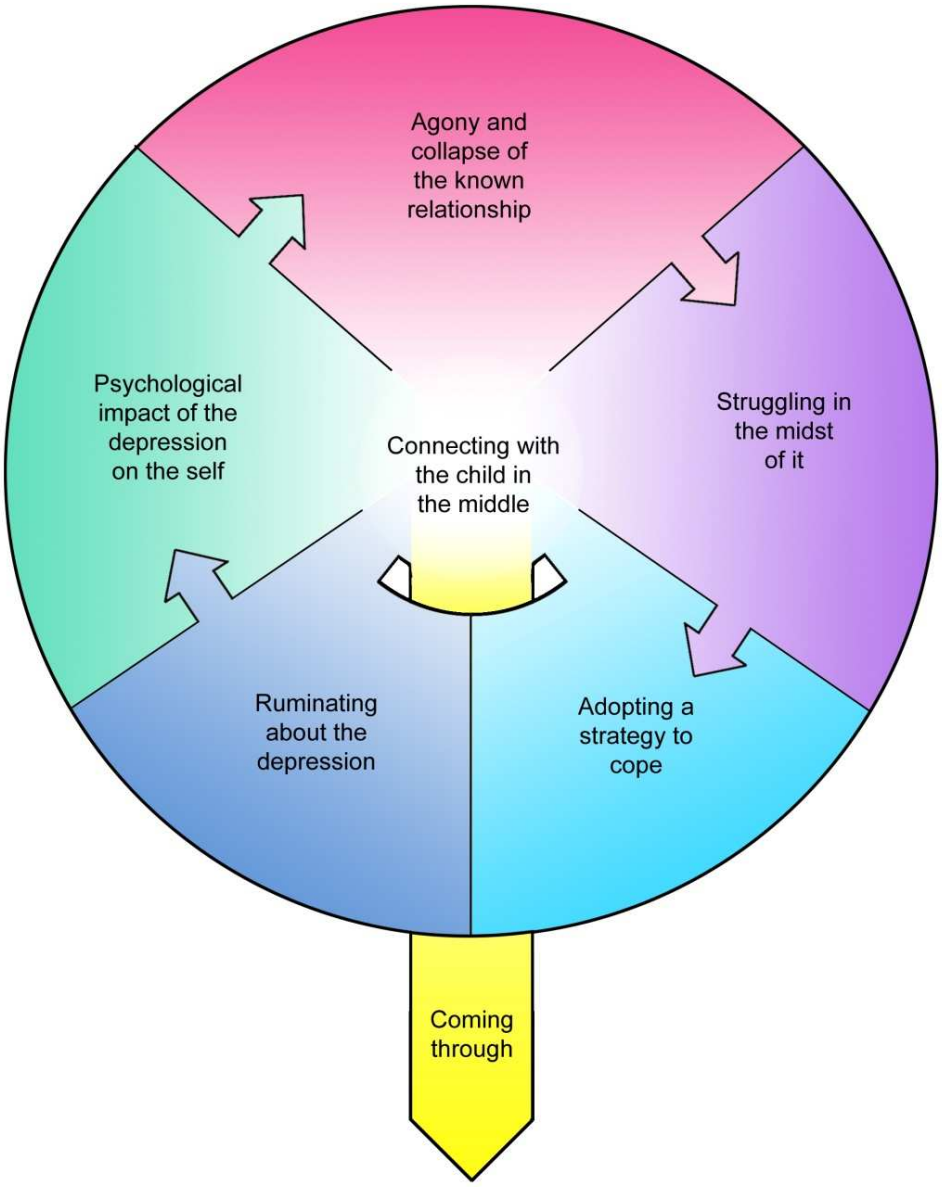

Figure 1 *Representation of superordinate themes.*

Due to practical constraints, not all of the participants' excerpts evidencing a theme were reported within the current report and additional evidence for the themes and their location within the addenda are detailed in Appendix J.

4.2 Theme 1: Ruminating about the Depression

4.2.1 *Desperate searching to understand*

The frequency of the data evidencing the participant's attempts to find meaning or cause for their partner's depression that were not attributable to the wife was interpreted to highlight both the participants' intensity of searching and need to explain the symptoms.

A number of participants attached great significance to external factors (e.g. breastfeeding difficulties, tiredness) as contributing to their partners' deterioration into depression, rather than their partner's own psychological coping mechanisms, as Rich indicated:

"Eve [ ] she wanted to breastfeed [ ] Violet was the one who decided that it wasn't for her. [ ] Which. Again. I kind of think compounded problems" (Rich, 800-805).

Other participants found it more difficult to differentiate between the depression and their overall quality of relationship, as Alex stated:

"I'm not sure if we're getting off postnatal depression [ ] or just general our relationship, it's hard to distinguish between all these things" (Alex 286-289).

4.2.2 *Fear of permanence*

Participants often expressed significant fears that the change in their partner following the onset of the depression represented a fundamental, possibly permanent change in their partner's personality or even 'madness'.

"There's always something; there's always some problem [ ] you think god am I just living with a nut pot do you know [laughs]" (Alex, 1238-1241).

Findings that participants attributed external factors to the development of their partner's depression and feared permanent change, the latter of which corroborates previous qualitative research by Meighan et al. (1999), can be interpreted relating to Everingham et al.'s (2006) research explaining men's understanding of the depression by means of meaning-frames (how fathers' understanding of their partner's depression becomes organised), with fathers understanding the maternal depression as a problem related to physical hardships such as breastfeeding difficulties or personality.

4.2.3 *The self as instigator*

Some participants' ruminations led to questions as to whether they were in some way implicated in their partner's deterioration into depression. Although not explicitly stated, the participant's tentative explorations were interpreted as participants' struggle to attend to feelings of guilt, regret, or shame, potentially leading to threats to their own self-efficacy:

"Am I being supportive enough...er is there more that I could do...or...?" (Arron, 703-705).

Additionally, engaging in what could be interpreted as upward counterfactual thinking (e.g. "if only I had ..." mental simulations to past events) may have inadvertently served to increase participants' levels of frustration (Sanna, 1997), or negative affect reported within the interviews.

4.3 Theme 2: Psychological Impact of the Depression on the Self

The partner's depression was frequently evidenced as impacting on many areas of psychological well-being for the majority of the participants, expanding previous findings (Boath et al., 1998; Everingham et al., 2006; Meighan et al., 1996).

4.3.1 *Yearning and loss of the past*

In discussing how life had changed following the birth of their child, several participants described a great yearning for the simplicity and joy in their life before children and resultant depression.

David described the emotional impact of his wife's depression as significantly influencing his yearning for the past:

"It was more, the [ ] urgent, traumatic, difficult to cope with emotional stuff [ ] it wasn't simple like before erm so yeah" (David, 528-531).

4.3.2 *Isolation and withdrawal*

Four participants reported their partner's depression as impacting on their social selves, ultimately leading to feelings of isolation, and emotional and physical withdrawal, although isolation was also influenced by the partner themselves, as David indicates:

"I wasn't really allowed to, I didn't go out, [ ] I didn't see anybody [ ] it was work or home and that was it" (David, 896-900).

David's lack of personal agency in maintaining social relationships was striking and led to questioning whether he was striving to maintain equilibrium in his partner's emotional state, as David later insinuates:

"She will make [ ] our relationship a living hell if I don't do them [tasks] (David, 1368-1370).

Although not explicitly indicated, other participants hinted at emotional isolation more indirectly, by their heightened awareness of their masculinity, different emotional coping strategies to other men or women, or others lack of understanding of the depression:

"And they [Fiona's family] didn't understand it [ ] saying I don't understand what you mean. [ ] they just couldn't grasp the concept at all" (Peter, 1485-1493).

4.3.3 *Exasperation*

All but one participant described increasing frustration with their partner, which was interpreted to leave them exasperated and overwhelmed in their physical or emotional efforts to manage their partner's depression. Others' exasperation was potentially defensive, for participants like Rich, where interpretation of his excerpt was placed in the context of his earlier fears of being unsupportive to his partner:

"I don't physically know, [ ] what else I can be doing. I'm doing this! I'm doing that! I'm going out to this. I'm doing that, I'm doing this" (Rich, 751-754).

Such exasperation was also implied by Australian and American fathers (Davey et al., 2006; Meighan et al., 1996) in their frustrations managing the impact of the depression.

4.3.4 *Erosion of the emotional self*

A number of participants described the effects of their partner's depression as having a direct impact leading to their own low mood, potentially depression. Rich described his sense of powerlessness in succumbing to the depression:

"Because you can't be the rock for that length of time without crumbling or eroding something fundamentally eroding you away sooner or later you're, [ ] gonna' get sucked into this black hole [ ]" (Rich, 928-938)

The negative impact of their partner's depression on the self is a finding consistent with research that fathers living with a partner with depression are at increased risk of their own depression (Benazon & Coyne, 2000)

4.4 Theme 3: Connecting with the Child in the Middle

Participants repeatedly evidenced their attempts to make sense of how their relationships with their children had developed in the middle of their partner's depression, although the children sometimes got lost within the interviews and discussion of the depression. Many described their sense of a disparity between actual and imagined parenting experience, of struggling with enforced disconnections in their attempts to connect to their child, however, the data evidenced participants' abilities to think about and know their child despite the shadows of their partner's depression. Finally, the data indicated how their idealised fathering images influenced their own experiences of parenting.

4.4.1

Shock: the dichotomy between the imagined and living reality

Several participants evidenced shock in response to their child's traumatic birth and subsequent parenting experiences, indicating the disparity between imagined and actual reality. Given participants' heightened emotional affect, the researcher interpreted this to indicate its lasting - and mostly negative - impact on their experience of becoming a father. On discussing his transition to parenthood, Arron stated:

"Well it starts with the afterbirth. [ ] ...and er...the baby's come out blue. No one ever told me that. They need to put that, in the leaflets. I thought he was dead! [ ] That, that was horrible. [ ] ..." (Arron, 410-415).

The depth of emotional trauma was expanded by Rich's ongoing, immediate emotional response in the interview:

"Yeah...Pfff...[ ] I didn't think I was going to get emotional, but. Jesus. [ ] Certainly...Not...Er...Certainly not. [Cries]...[ ] The joyful scenario that you kind of expected..." (Rich, 543-557).

Andersen (1996) indicated that fathers (with presumed non-depressed partners) similarly reported a sense of helplessness and fear following particularly traumatic deliveries. The researcher wondered whether initial birth trauma may have impacted on the developing relationship with their child, perhaps negatively impacting on the formation of positive feelings toward fatherhood, as Arron describes parenting as aversive:

"Are you ever going to be ready for parenthood? [ ] Because it's such a big slap in the face anyway" (Arron, 405-408).

Peter expands this point:

"Just the reality of it all…isn't in these books. [ ] they don't tell you in the middle of the night um you are going to have thoughts of throwing your baby out the window because she won't go to sleep [laughs] they don't tell you these things" (Peter, 327-330).

Participants' disparity between imagined and lived reality may be interpreted in the context of research suggesting fathers often envisage the fun and shared activities they can engage in with their child in the future, rather than the realities and demands of infant care (Lupton & Barclay, 1997). For Peter, it is possible his violent thoughts also reflect potential depressive symptoms, as such disparity between real and imagined fathering is indicated in the onset of paternal depression (Bielwska_Batorowicz & Kossakowska-Petrycka (2006).

4.4.2 *Struggling with enforced disconnections*

Participants described feelings of being somewhat removed from the mother-baby dyad either promoted by professionals at the birth, or during the early months of fatherhood, especially when the mother was breastfeeding. Some participants struggled to generate a connected role with their child, mirroring Lewis's (1986) research, although Peter described improved involvement as the partner's depression became more severe:

"Oh great [ ] I am doing something now, [ ] I am looking after Fiona, I am looking after Grace" (Peter, 952-955).

Another described his struggle in being blocked from engaging fathering by his partner:

"I was so [ ] desperate to [ ] do the right thing as a parent, feeling like that wasn't an opportunity. I wasn't able to do that; my wife wouldn't let me do the things that I thought were right [ ]" (David, 987-992).

Such blocking by the partner, or indeed perceptions of exclusion, may be understood in terms of the maternal gatekeeping hypothesis – where mothers mediate the father-child relationship by inhibiting participation in family work (Allen & Hawkins, 1999; cited in Gaunt, 2008). When mothers believe fathers should be involved in childrearing, levels of fathering involvement have been found to be positively influenced by maternal perceptions of fathering roles (McBride et al., 2005), and Lupton and Barclay (1997) found fathers to welcome any instruction in delivering care. Depression and any associated reduction in maternal self-esteem, may lead mothers to inadvertently increase gatekeeping to retain her feelings of self-efficacy or identity (Gaunt, 2008), or devalue fathering involvement.

Some participants described their struggle with the rejection and resultant enforced disconnection from their child in their attempts to connect, as Rich recounts:

"I do but it makes me as sad as shit [laughs] [ ] resentful. Why won't you fucking love me? [ ] I'm your dad, you know? [ ] I can do everything your mum can apart from breastfeed" (Rich, 791-799).

Here, Rich's intensity of response to what he perceives as a personal rejection instigated by his child was interpreted as representing an enforced disconnection in the father-child relationship. Disconnections, or disruptions in attunement naturally occur

within early caregiver-child relationships and optimally involve sensitive reparation by the caregiver (Gerhardt, 2004). Greater paternal sensitivity corresponds to greater paternal psychological well-being (Broom, 1994), and it was interpreted that in participants' elevated affective states, paternal sensitivity was diminished and reparation may not have occurred - potentially leading to distress displays from the child. In these participants' accounts, they were perceived as a rejection in their attempts at becoming connected.

4.4.3 *Mentalising the child*

Participants frequently described their ability to attend to and infer about their child's intentions and mental states, with such levels of physical or psychological accessibility indicated in models of paternal involvement (Lamb, Pleck, Charnov, & Levine, 1987; cited in McBride et al., 2005), and were interpreted to be indicative of parental mentalizing (Fonagy, Gergely, & Target, 2007), as Alex demonstrates:

"They [children] actually say I want more telly but in actual fact when you're playing with them [ ] they like that a lot more" (Alex, 1217-1219).

Other participants indicated little in the way of adapting their response to their child:

"Generally, I'm very open. I don't change my language [ ] I speak to them as I am speaking to you now. I don't baby them, I don't mother them" (Rich, 1245-1249).

The researcher wondered how much of Rich's well-intentioned method of responding to his children may have hindered his inital attempts at connecting to his child.

Other participants demonstrated their ability to hold their child in mind in a reflective capacity, with Arron reflecting his children's emotional states may be affected by his partner's depression:

"Then it gets a little bit snappy...[ ] they can tell before you even speak they know if you are angry [ ] so, [ ] they will surely know if two people are at odds with each other..." (Arron, 308-317).

4.4.4 *Feeling the love and feeling adored*

The majority of participants indicated they had developed an intense emotional bond, and desired to feel close to their children or admired by them. The researcher was particularly struck by David's poetic description of meeting his child for the first time before the onset of his partner's depression, and interpreted it to be like a re-emergence of an emotional self from a pre-fatherhood, emotionally repressed state:

"It was very much like a film called Equilibrium [where they've] eliminated emotions through drugs and [ ] everything's very uniform, very boring [ ]. Christian Bale's character [ ] plays a symphony [ ] It's the first time he's heard classical music and he just bursts into tears, [a] realisation that this is what I've been missing all my life and the pain of this is too much to bear. How do I bear this sort of feeling, it's like that" (David, 466-482).

The researcher found his use of the imagery from a film intriguing and although not qualified by the participant, was interpreted as potentially serving a protective function, using film as familiarity to ground him in his emotionally overwhelmed state, or as a means to express emotions for which he had no direct vocabulary or language.

This sense of overwhelming love, or engrossment, also seemingly fused with an overpowering fear of strength, like Rich:

“But I guess...[sigh]. I guess I was frightened of hurting her? [ ] I’ve never, never hit them, never lifted my finger on em. [ ] But, there is that, you know, you’re squeezing too hard and they’re so fragile” (Rich, 1308-1315).

The researcher wondered whether this also reflected unexpressed aversive or shameful and violent feelings towards his child, especially in the context of him previously being rejected by the child. Indeed, Rich reported a change in his relationship with his child from aversive, perhaps repulsive, to joyful as he began to feel loved and accepted by his child:

“Our relationship [ ] changed as she changed from being pink, wriggly, screaming ... thing that produces vomit and poo, to [ ] where she becomes a toddler. That awareness, that actually big, fat, hairy beast is actually quite fun to be around” (Rich, 1256-1266).

That some participants’ emotional affection took so long to develop was especially poignant, similarly described by Arron:

“I got mine about six months. [ ] Leo started laughing at me. I managed to get him laughing, [ ] It was that acknowledgement that, I think, [ ] And I’m just starting to see that with Charlie now” (Arron, 455-463).

Lewis (1986) described comparable findings, with some fathers reporting initial fears of the fragility of their infants, and improved relationships towards the end of the first year of life (p 117), often with the child’s improved paternal recognition. Lupton &

Barclay (1997, p.137) reported fathers as experiencing slower relationship development when they had been less involved in early-infant care, meanwhile, Andersen (1996) noted improved father-child relationships after two months, with the onset of increased infant responsiveness (e.g. eye gaze, smiling). Lewis (1986, p.136) acknowledged that he did not establish prevalence of depression in the postnatal period, although indicated depression was mentioned by participants, and assessment of depression was not reported by Andersen (1996) or Lupton & Barclay (1997). Accordingly, it remains possible that these findings of delayed relationship development are influenced by adverse effects of maternal depression, given father-infant interactions have been found to be negatively affected by the presence of maternal depression (Goodman, 2008), which may ultimately make interactions less rewarding.

4.4.5 *Investing in the fathering ideal*

Many of the fathers reported investment in engaging with the child in a fun way, sometimes appearing to serve a function other than connecting with the child, for example, as a protective function or a way to express resentment of the pressures in the relationship; a situation described by David, mirroring previous findings of parents channelling relational conflict through the child (Entwisle & Doering, 1981; cited in Lewis, 1986):

"When things were bad [ ] I would most certainly be quite deliberate about how much fun I was having with my daughter" (David, 980-984).

Other participants described the psychological relief that engaging in fun brought:

"When I'm with the children, I act like a child and all, all that [concern] goes away... [ ] I'm [ ] focussed on playing with Leo. [ ] trying to make things fun" (Arron, 631-634).

Other participants described a sense of childlike investment in the fathering role, exemplified by Alex:

"You're [sic] also try and remember that you know when I have played dad for a day or two, you kind of get taken away with going to the park or amusing the kids" (Alex, 552-554).

His use of language 'playing dad' was interpreted as though engaging as a father entailed a level of choice - a dynamic role to be put or taken on. Alternatively, it was possible that his intermittent fathering was governed by unrealistic ideals of intensely fun and 'involved' fathering (including emotional involvement: Lupton & Barclay, 1997), at levels that could not be maintained without impacting his personal well-being, given the context of the additional demands placed on participants by the depression. Alex described the difficulty of living up to his idealised fathering image later:

"I'm not as good as a dad as I thought I'd be [ ] I always thought I'd have so much time and attention and energy for them and I haven't. I mean I'm tired after a day at work and stuff..." (Alex, 1095- 1101).

A point expanded by Arron:

"I would really like them [his children] all to be here [ ] in my perfect world all my family lives with me...in my, in my real world I would probably struggle [ ] my head would implode [laughs]"(Arron, 929-937).

4.5 Theme 4: Agony and Collapse of the Known Relationship

4.5.1 *Yearning for affection and the guilt of desire*

Three participants expressed anguish over the loss of affection in their relationship following the birth of their children and onset of their partner's depression, relating to their partner's diminished nurturance, or emotional and physical intimacy, illustrated by Arron:

"There's no like hugs or kisses anymore, or...erm...how have you been, she's, she's so tired and so drained from looking after the kids, and there's me asking...for her to be" (Arron, 157-161).

Several of the participants described diminished sexual intimacy, which frequently invoked guilt:

"But when a kid comes into it and your drive's greater you feel guilty to want that intimacy" (Alex, 344-347).

Similar findings were reported in an American sample (Meighan et al., 1999), and reduced libido is reflective of the symptomatology of the depression (Cox & Holden, 2003).

4.5.2 *Misery of the home*

The data repeatedly showed evidence for the participant's loss of a satisfying and enjoyable relationship, which could be interpreted as being indicative of the intensity and significance of the emotional impact on the participants. Participants described

battles of communication contributing to the unhappy atmosphere, occasionally manifesting in violence, as Rich indicated:

"...bowl sort of went flying past my ear [actions of arms behind his head]. Sort of cake mix [laughs] [ ] all down the door. You know? [ ] Erm...but I probably deserved that" (Rich, 179-193).

A number of participants explicitly attributed the misery and unhappiness to their partner or depression, like David:

"The time at home was no fun at all. It wasn't really allowed to be" (David, 900-901).

These findings corroborate previous reports in other samples describing the breakdown in communication within the relationship (Everingham et al.,2006; Webster, 2002) and tense atmosphere within the home (Boath et al., 1998).

4.5.3 *Loss of the team and contemplating the end*

Several participants reported fears of the breakdown of their relationship due to loss of team-working, anticipated separation from their partner, or doubted their partner's emotional investment in their relationship, described by Arron:

"But I, I worry, cause [ ] what's the commitment of my team mate sort of thing, and where will that leave me if..." (Arron, 846-851).

Arron's anxiety and uncertainty with what would happen to him was apparent, but was interpreted as being more significant to how his relationship with the children may be affected, earlier stating:

"...if she left...would she take the kids? Do I get the kids?" (Arron, 369-372).

Such fears are sadly founded within the literature, with depression increasing likelihood of family breakdown (Cox & Holden, 2003).

4.5.4 *Finding a cause for the collapse*

A number of participants seemed to engage in reflective dialogue to make sense of their deteriorated relationships, with their children sometimes indirectly implicated in the deterioration, for example, arising from conflicts of inter-parental opinion in parenting approaches advocated by professionals, or as reducing the amount of time available to spend as a couple. Other participants evoked the impression that the children were seen as causing less joy within the relationship, like Arron:

"We'd started saying we'd do nice stuff together; [ ] that was really nice, even though all the kids were there" (Arron, 807-812).

His perhaps flippant statement 'even though the kids were there' provides a striking example of potential unrecognised implication of the children as contributing to the problems, and although unqualified, may reflect an underlying resentful or depressed mood.

4.6 Theme 5: Struggling in the Midst of it

4.6.1 *Loss of the competent wife*

Several of the participants described their escalating concerns relating to their partner's mental health, eventually resulting in their inability to recognise the woman in

front of them as their known and previously competent partner. Peter described his partner as physically unable to function:

"And she was [ ] just lying there on the landing [ ] saying I can't go in, I can't [ ] have anything to do with Grace, I have had enough you are going to have to do it yourself" (Peter, 150-158).

His language 'just' enhances his sense of shock that the once admired and competent wife had deteriorated in such a severe way that he was left in sole charge of their child. Peter later went on to describe his experience of the severity of the loss:

"The shit hit the fan [ ] as far as Fiona was concerned" (Peter, 981-984).

For others participants, shock or trauma were experienced on their partner's disclosure of the severity of their symptoms, as illustrated in Alex's example and his language of 'shell shock':

"She said that she'd considered ending it, it all.[ ] I was completely shell shocked by that. [ ] Yeah a bit tired and grumpy and stressed [ ] But nothing...outwardly that bad" (Alex 80-90).

Alex's disbelief and shock was significant and appeared later in the interview:

"She's not that kind of person...Do you know what I mean?" (Alex, 975-978).

Meighan et al.'s (1999) American sample reported similar findings, and such change in their previously supportive partner appeared to be felt profoundly by the participants in the current study.

4.6.2 *Terror and concern for the baby*

The majority of participants indicated varying intensity of concerns for the well-being and safety of their child resulting from the effects of their partner's depression, due to the fears of the partner hurting the child from frustration and anger, or inadvertently through diminished competence or misguided maternal care. Arron clearly described the context of his concerns:

"I heard this like banging. [ ] And I thought what the hell was that? So I er came running through and Andrea was sat on the bed [ ] with the baby [ ] screaming in the corner" (Arron, 44-48).

Arron's tangible fear at managing the levels of risk were interpreted to potentially leave him with an impending sense of doom, and living with the uncertainty of knowing whether to act or take further action to protect the child, a point indicated later:

'We'd have these conversations she's like I've had a terrible day I'm gonna throw the children out of the window. And I'm just like...mmmm [laughs] [ ] Does she mean that? Is this building to something? Is this a little tell-tale sign [ ] Or do I just erm ignore it?" (Arron, 78-87).

The significant fear of something 'bad' and potentially life threatening happening to their child as a result of their less 'competent' partner was mirrored by two participants, and hinted at in an American sample of fathers by Meighan et al. (1999), although the samples' fears were embedded within the theme of 'loss of control'. Maternal depression has been identified prior to infanticide (killing of a child within 12 months of its birth: Friedman, Horwitz, & Resnick, 2005), and although a relatively rare

occurrence, cases often receive sensational media coverage (Radano, 2007). What is striking is that participants frequently appeared to be managing or containing these concerns alone, what the researcher viewed as overwhelming, considering they were experiencing their own psychological adjustment to fathering.

4.6.3 *The turmoil of being unprepared and uncertain*

Participants frequently evidenced the sense of being emotionally overwhelmed in managing the family and the depression, whilst being left within the vacuum of absent knowledge of how to support their partner or identify with the female experience, findings corroborating previous studies (Davey et al., 2006; Meighan et al., 1999), and indicated by Rich:

"Just this massive shortfall in information. Everything was about...Eve and the baby [ ] Absolutely nothing...out there, at all, for blokes. [ ] You couldn't make any direct comparisons or relate to anybodies ...story because it's all about the female" (Rich, 912-921).

Other participants appeared to engage with the turmoil in the quest to compare the experiences of the couple to that of the general population and imagined or normative experiences of parenthood:

"But I, I don't know if [ ] I am generally ok, and Andrea is [ ] generally ok...how does the rest of the country deal with parenting? Does everybody go through this?" (Arron, 870-873).

4.6.4 *Distress at managing distress*

Participants described how being in the midst of their partner's depression promoted a heightened personal emotional distress in response to other family members' emotional demands, which at times felt overwhelming, as illustrated by Rich:

"I felt like I was in the centre of a ring of people who were all pulling at you in different directions and [intake of breath, sigh] erm..." (Rich, 470-472).

Other participants described their escalated distress and conflicting emotions in managing their child's distress, such as Alex:

"Very [ ] tired, can't get him down, just really sick of it. Feel like you want to throw them down but I'll just swear or whatever. [ ] but no, that's mixed up with the kind of care and love as well so you want to, I mean do your best" (Alex, 889-896).

In the above excerpt, it appeared that Alex's distress in managing his child's distress took on the form of an internal struggle or battle to regulate this frustration, evidenced by other participants like Arron:

"So I kind of battled through with the crying baby...erm…" (Arron, 297-298).

Interpreting these extracts in terms of mentalising, times of heightened distress can diminish an individual's ability to mentalise and regulate others' emotional states (Fonagy et al., 2007). Emotion regulation develops in childhood facilitated by the caregiver and difficulties in emotional regulation have been implicated in psychopathology, including personality disorders (Fonagy, Gergely, Jurist, & Target, 2005). Being able to mentalise other's distress enables a parent to effectively appraise then regulate their child's emotional state, and mentalisation can be transmitted

nonverbally, through parental kinaesthetic movement with infants (Shai & Belsky, 2011). It is possible that participants were experiencing difficulties in mentalising, compounded by additional stressors (e.g. maternal depression), potentially transmitted by their physical interactions with their child.

4.7 Theme 6: Adopting a Strategy to Cope

4.7.1 *The instinct to contain the family in crisis and protect the child*

Participants frequently evidenced this theme, perhaps mirroring their urgency to handle the family suffering in the crisis of their partner's depression, often describing their engagement as 'fire-fighting', as indicated by David:

"I found [out] what my wife had done with my daughter and [ ] instantly that [ ] protective button popped out [ ] that sense of a real rift between and constantly fighting fires" (David, 556-563).

Other participants indicated their need to contain the family by taking charge, encouraging mother-child contact, or making suggestions on their partners handling of the child, as described by Alex:

"But I've said to her [ ] where things come to a head and I've said look I just think you should prioritise food and patterns of time of the day 'cos I think that would really help" (Alex, 564-567).

Participants frequently indicated what was interpreted to be adopting a role of a vessel of containment, for both partner and child, often presenting when the partner

could no longer manage the child although their choice was negated in the relational transaction, as a number of participants including Rich highlight:

"[sniff]...It vented itself in frustration, I suppose. [ ]...You know. Sort of thrusting the baby Violet sort of, there you have her. I've had hrrr [ ] storm off..." (Rich, 859-862).

Several of the participants noted their concern to shield their child from the arguments in the family, as evidenced by Arron, who additionally indicated that this would often cause arguments to escalate:

"We try not to argue with it in front of the kids, but that makes it even worse because she bottles it up then. I suppose maybe I do in a respect too" (Arron, 304-306).

Adopting the role of protector is a phenomenon of fathering similarly reported by Lupton and Barclay's (1997) sample, and Meighan et al. (1999) reported fathers frequently attempted to 'fix' the problem, and mirrors the current sample's urge to take charge or make recommendations in the daily care of their children. Given the earlier context where participants reflected on whether they may have contributed to their partner's depression, such instinctual behaviour may relate to Thoits' (1991) finding that men implicating themselves in negative events often take direct action. Indeed, this 'righting reflex' as participants describe is similar to problem-solving coping strategies (e.g. managing the stressor by solving the problems, information seeking etc) in the coping literature (Lazarus & Folkman, 1984), and can promote more adaptive coping.

4.7.2 *Compartmentalising relationships*

Four participants explicitly discussed the compartmentalisation into mother-child, father-child, or mother-father dyads which was interpreted to be a means of attempting to cope and adjust to the new family dynamics and the depression. David recounted revengefully uniting with his child against his partner:

"I'd spend more time [with his child] and, and almost deliberately make it more quality time so that she could hear, so that my wife could hear that this time was quality time" (David, 956-958).

Other participants hinted at their compartmentalisation of the self from the child and mother relationship:

"There was those two and me" (Rich, 1050).

The researcher also interpreted these accounts as indicating the difficulty of integrating the child into the family and adapting to the resultant shifting family dynamics, represented by a shifting between the dyads, as Rich had earlier exemplified a different separation:

"It's me and her [Eve]. You're [Violet] not even in the equation right now, you know. It's me and her" (Rich, 1148-1150).

Arron expanded this point:

"No one should ever hear this because people will think it's children tha, that ruin, ruin people's lives [ ] there's nothing wrong with the babies...it's, it's the adults and their approach I believe" (Arron, 691-694).

Genesoni and Tallandini's (2009) recent review suggested that mothers facilitate the adjustment to the triadic family relationship, and given the depression (and associated difficulties) the participants' partners may leave them unable to facilitate this, leaving such shifting dyadic roles for participants to negotiate themselves.

4.7.3 *Disconnection and concealment*

All participants described a degree of disconnection or concealment which was interpreted as a means of coping or responding to the highly emotive and distressing impact of the depression on the family, potentially to maintain emotional distance.

Such emotional disconnection was interpreted by the researcher in Rich's account:

"I remember Eve being asleep and it was, Violet was crying and it was just like 'go and pick up the baby'. I remember many a time just typing like this and baby's down there. [ ] [laughs]. [ ] Still crack on with work and do childcare" (Rich, 658-668).

Rich's view of distant fathering by multi-tasking and not engaging with the child, and other participants' use of 'it' highlights disconnection by de-personalising their child, and mirrors findings by Andersen (1996). Participants frequently indicated lack of recall of any emotional affect, and reported de-personalisation of their partner that often extended into a physical disconnection from their child or partner. Participants sometimes indicated an understanding for their disconnection, like Peter:

"I think that helps me at work to not be emotionally connected, and [ ] part of me flipped into that. Um if I don't get involved in it [ ] then I can [ ] cope with everybody" (Peter 420-424).

Participants frequently reported concealing the partner's depression, with some envisaging the necessity for concealment of the depression in the long-term future, like Peter:

"Um [ ] I don't think we will tell her [Grace], [ ] it's not relevant. [ ] I really struggle to see any way that she has been affected by that [depression]" (Peter, 1250-1255).

Everingham and Bowers (2008) previously noted fathers' withdrawal from the caregiving process when the family environment was distressed. Thoit (1991) indicated that men who perceive themselves as responsible for the occurrence of a negative event, perhaps their partner's depression, often think about the problem but refrain from disclosing feelings, which may be interpreted as occurring in the current study.

4.7.4 *Defending the self*

Participants also appeared to engage in frequent social comparison, normalisation, justification or minimisation of their experiences, perhaps as a means to improve their mood by deflecting the emotional impact of the events, as highlighted by Rich:

" ....There was blokes [ ] getting stabbed and all sorts. [ ] It doesn't matter what the hell I was experiencing it was nothing to what this guy had been through" (Rich, 886-899).

Such findings have not been previously described by previous studies, however can be interpreted as downward counterfactual thinking (e.g. "at least it wasn't as bad..." mental simulations to past events) serving to generate positive affect (Sanna, 1997).

4.7.5 *Changing the self and negating personal needs*

Participants often described the effort ascribed to changing themselves to mirror or manage their partner's negative affect; in contrast, some participants remained steadfast in their approach and maintained resistance to change. On asking him whether he changed his interactions with his child in the presence of his partner, Rich said:

"No. I'm…I'm me. [ ] You either like me or you don't. If you don't, fuck off" (Rich, 1224-1231).

Other participants described changing themselves for the benefit of nurturing their children in the absence of their competent partner, as Peter indicated:

"I became in many ways like the breastfeeding mother, um, you know they say sleep when the baby sleeps, [ ] I knew [ ] that was my job" (Peter, 490-492).

Previous findings with American fathers indicated they made personal sacrifices (e.g. emotional and personal time) to get through their partner's depression (Meighan et al., 1996), although changing themselves (or not) in relation to their child was not reported.

4.7.6 *Seeking support*

Participants' searching for support was interpreted as a means of coping with the partner's depression and transition to fatherhood, with participants receiving equivocal support from family and professionals. One participant appeared relieved that staff supporting his wife were able to mentalise and potentially contain his own distress, as Rich described:

"She [staff member] recognised that the partners [ ] may also be suffering some kind of trauma or some kind of depression" (Rich, 923-928).

Other participants indicated the absence of support, like David:

"There was [no] access to professionals for a man because you're at work. [ ] you can't take a day off work and say I'm just not coming [ ] because firstly it's never available and secondly you don't get paid or [ ] you're jeopardising your work. So [ ] it didn't exist" (David, 1133-1145).

Additionally, some participants insinuated what was interpreted as a double-bind of seeking support, hinting at the negative responses they received from their partners. Others indicated they closed the door to support, for example in fighting against their partner's in-patient admission, as Peter described:

"They were talking about putting Fiona in hospital. [ ] I said [ ] you are not doing that no [ ] They said about the mental health act and I said you will have a fight on your hands" (Peter, 1327-1331).

The impact and importance of professional- and social-support is especially relevant given that fathers with partners with depression often report low social support and is implicated in impairing their own mental well-being (Zelkowitz & Milet, 1997).

4.8 Theme 7: Coming Through

4.8.1 *Enhanced self-awareness and relational strength*

A number of participants described the journey of their partner's depression as an emotional rollercoaster full of highs and lows, although indicated an enhanced capacity

for self-reflection and awareness. Other participants reported the relationship with their wife (e.g. team-working) or child had been strengthened as a consequence of the depression, like Peter:

"If Fiona had been really well [ ] then there would have been no need necessarily for me to be so close to Grace" (Peter, 739-741).

Participants occasionally moved, sometimes unprompted, within the interview into almost philosophical discussions that can be interpreted within the realms of posttraumatic growth literature reporting strengthened selves and relationships with others, with their experiences of their partner's depression reflecting a personal challenge to their adaptive coping (Tedeschi & Calhoun, 2004).

4.8.2 *Living with the lingering scars*

Most participants described their partner's depression as leaving fundamental traces within the relationship, with no real sense of definite recovery:

"If anything [ ] I wouldn't be surprised if she's got postnatal depression [ ] now it looks similar" (Alex, 457-473).

Others felt the depression had impacted so intensely they understandably wanted to protect against potential relapse with future children, as Peter indicated:

"I just think about [ ] how do we prevent that from happening again. I think that's what I think about more than anything, [ ] what do I need to do [to] stop it from happening again" (Peter, 731-735).

The lingering effects of managing the depression manifested within the interviews as a number of participants were interpreted by the researcher to exhibit anxiety and defence at disclosure of their experiences throughout the interview process. This was interpreted as their continued need to conceal and protect the partner, and potentially guilt at their disclosure:

"It's not a witch hunt" (Alex, 1328).

5 DISCUSSION

5.1 Summary of Findings

The current study aimed to explore fathers' experiences of their partner's depression in the postnatal period, with a particular focus on their experiences of the development of their relationships with their children within the context of their partner's depression. Participants described their emotional journeys in trying to understand and negotiate their partner's depression, their attempts to contain the crisis and develop the relationships with their children, with the depression frequently impacting on their own well-being. Some of the findings, although essentially novel to a UK sample, were corroborated in other samples (e.g. external causes for their partner's depression, fears of permanent change: Meighan et al., 1996, psychological deterioration: Boath et al., 1998; Davey et al., 2006; Everigham et al., 2006; Meighan et al., 1999; impaired communication: Everingham et al., 2006; Webster, 2002, relationship strain: Meighan et al., 1996, Webster, 2002).

Participants' emotional and social withdrawal, role as a container of distress, fears or contemplation of relationship breakdown, indirect implication of factors related to

their child as a cause for collapse of their partners, fitting the arguments around the baby, the function of fathering ideals and the sense of strengthened relationships although lingering presence of the depression, are all new findings emerging from the data that, to the researcher's knowledge, previously unreported in related qualitative studies and are all avenues that warrant further research. Additional new findings relating to this population emanating from the current study include insights related to: enforced disconnections; delayed relationship development; compartmentalised relationships; and, participant distress in managing distress, discussed in more detail below.

5.2 Facilitated Connections?

Previous findings (Andersen, 1996; Lewis 1986) reported fathers' lack of roles as potentially contributing to delayed relationship formation with their child, with some fathers bonding once children became more responsive. Everingham and Bowers (2006) suggested withdrawal in distressed new families (e.g. due to maternal anxiety) was due to fathers' frustration of being unable to support their partner. Findings evidenced by the current study tentatively suggest that other factors aside from their perceived lack of roles contributed to fathers' experiences of disconnections with their child, either created by professionals (e.g. exclusion from learning early-infant care), being blocked by their partner, or feeling rejected by their child in their attempts to connect and impaired by their own distress and diminished abilities to mentalise. Consequently, fathers may be potentially facilitated in their relationship with their child by mothers, and depression and associated familial distress may inhibit this. Goodman (2008) reported maternal depression to hinder optimal father-child interactions, and it is possible that such 'blocking' is one aspect that underlies this finding. However, not all

fathers in the current study initially withdrew from their children, and such findings may represent the equivocal research implying fathers sometimes act as a 'buffer' for the detrimental effects of maternal depression e.g. by compensating in infant care (Hossain et al., 1994).

The participant indicating he felt 'blocked' from fathering as he wished mirrors Burgess's (1997) suggestion that it is mothers who prevent fathers from actively engaging in early childrearing; however, like Everingham and Bowers (2006), the researcher wishes to move away from such overt claims of maternal intentionality in such behaviour. Within the literature exploring maternal 'gatekeeping', Gaunt (2008) suggested that mothers may increase gatekeeping to retain feelings of self-efficacy or identity. Extending the concept of gatekeeping into a facilitative function, mothers have also been indicated in supporting the triadic adjustment within the new family (Genesoni & Tallandini, 2009). The new findings highlighting fathers' struggle with the shifting compartmentalisation of relational dyads, generates further avenues of research to explore mothers' roles in family adjustment within the context of depression.

5.3 Managing Distress

Some participants perceived rejection in their attempts to connect with their child, and some inadvertently implied that children were getting in the way of their relationship with their partner (e.g. sexual intimacy, fun, time as a couple), potentially signifying underlying resentments to the children. Participants' increased levels of distress at managing their child's distress has not previously been mentioned in qualitative studies relating to this population, however was briefly indicated by Lewis (1986), and Lupton and Barclay (1996), with fathers in Andersen's (1996) study

minimising negative aspects of parenting young children (p.86). Current participants disclosed reaching the limit with their crying infant, and given the potential for maternal mediation of positive father-child relationships, the researcher considered the maternal facilitative function of managing familial distress levels as potentially hindered by the depression. Further research is needed to establish whether fathers' distress at managing infant distress is influenced by their partner's depression and additional demands. This would be especially pertinent, given that distress inhibits individuals' ability to mentalise (Fonagy et al., 2007), and mentalising is necessary to promote safe and nurturing environments for the development of secure attachments (Gerhardt, 2005) which are important for children's later socio-emotional functioning (Verschuren & Marcoen, 1999). Additionally, it is possible that fathers found managing the heightened rejection or distress overwhelming, leading them to withdraw from their relationships with their children and is another area that requires clarification with further study.

The researcher is unaware of any additional studies (aside from within a previous studies' theme 'loss of control') (Meighan et al., 1999) explicitly evidencing fathers' concerns for the safety of their child due to the depression and is an area requiring additional research.

5.4 Methodological Limitations

5.4.1 *Sample and recruitment*

Several participants spoke retrospectively about their experiences of their partner's depression potentially biasing recall or representation of events, however, fathers often report negative events when they have ended (Thoits, 1991), thus this may be an issue in this population, and possibly contributed to the current study's

recruitment difficulties. One participant indicated (during debrief) they would not have spoken about these events whilst 'in' their partner's depression: it is possible that potential participants refrained from engaging in emotional dialogue due to withdrawal or to retain their role as container for family distress.

5.4.2 *Validity*

The researcher held Smith's (2011) quality criteria in mind throughout analysis ensuring that at least three participants demonstrated evidence for each theme; nevertheless, validity of the findings may have been improved. Participants could have been consulted in the analysis to establish whether interpretations were representative of their excerpts, however, due to time constraints was not feasible. The breadth of the research questions might have impacted on the validity and analysis, and improved by limiting to explorations of fathers' experiences of their partner's depression, experiences of father-child relationship development, or around a theoretical framework (e.g. fathering identity).

As previously discussed (please see section 3.5.2.4), it is likely that participants in the current study would have come into contact with other professionals from mainly female-dominated services delivering their partner's care, and these experiences may have influenced their perceptions of, and interactions with, a female researcher working within the NHS. Subsequently, participants' apparent desires to connect with their children may have potentially been influenced by preconceived ideas of what females working in mental-health professions expect, for example, relating to 'involved' fathering behaviour (an issue cited as being perpetuated by professionals by Everingham & Bowers, 2006). Alternatively, the female researcher may have

potentially been perceived as ‘maternal’ or a ‘nurturer’, that may have led participants to want to present themselves as an ‘involved’, and thus socially acceptable, father. Consequently, it may be beneficial to conduct similar qualitative studies with a male researcher to determine any potential effects of gender dynamics.

5.5 Clinical Implications

Despite limitations regarding generalisability from qualitative studies (Willig, 2008), there were indications of some of the findings corresponding to other non-UK studies, which strengthen the value of the clinical implications of the current study.

Participants described equivocal accessibility and experiences of clinical services, as such, fathers may benefit from service-delivery models that enable accessibility to the associated mental health professions (e.g. nurses, psychologists, and psychiatrists) involved in their partner’s care.

Based on the current findings, fathers’ adaptive coping may be enhanced when clinicians:

- Heighten awareness of the realities of infant delivery and care (recommended by Webster, 2002);
- Provide clarity of when symptoms of normative adjustment to parenthood have elevated to clinical depression;
- Contain fathers in their management of risk to the partner and child;
- Utilise fathers’ problem-solving approaches by offering practical advice of how to get involved in optimal infant interaction e.g. infant engagement (Hotelling, 2004), given

the potential for mothers being unable to facilitate father-infant relationship development;

- Assist in reframing of fathers' appraisals of infant behaviour or the depression (e.g. appraisals of rejection); and,
- Are aware that fathers' withdrawal from services may potentially be driven by their appraisals of self-blame and emotional-coping strategies.

5.6 Conclusion

The current study intended to explore fathers' experiences of their partner's depression in the postnatal period, and their developing relationships with their children, using a methodology that enabled richness in individual accounts to manifest without the researcher assuming their experiences would follow an inherently pathological process. Nevertheless, the findings of the current study have provided valuable insight into the sometimes distressing life-worlds and frequently challenging journeys fathers made as they moved through their understanding and management of their partner's depression. Even when fathers were able to connect with their child situated in the middle of the turmoil of the depression, acting as the container for the distress within the family appeared exhausting, monotonous, scary, and lonely. Fathers frequently described the difficulty of living up to idealised fathering images, and highlighted their desperation to access not only professional knowledge and support, but also the support and understanding of other fathers experiencing similar journeys. The current study's findings suggest that it is time for other fathers to mutually and honestly share their stories in their social domains and eschew any idealised fathering images including the 'involved', perhaps 'perfect' and essentially 'unattainable' father.

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PART THREE:

CRITICAL APPRAISAL

1 CRITICAL APPRAISAL

2 INTRODUCTION

Qualitative research is both interpretative and reflexive and intrinsically influenced by personal experiences and values. This critical appraisal is an account of my reflections on the journey through my research process and analysis and based on my reflective diary.

3 CHOOSING THE TOPIC

3.1 Choosing Research with Fathers

3.1.1 *Interest in parenthood*

Throughout the course of my experiences as a clinician I have been interested in peoples' experiences of being parented and how these experiences have had lasting influences on their daily-life. In particular, working with young people in custody as an assistant psychologist led me to experience and understand how damaging abusive and neglectful parental behaviours were for the young people I worked with, and hearing their stories generated powerful feelings including disbelief, shock, sadness and anger. This led me on a path of learning relating to the impact of early care giving relationships on internal working models of attachment and how to assist as a clinician in any small part of repairing some of that damage.

3.1.2 *Professional experiences of parenthood*

In my first year of training, whilst conducting a literature review relating to treatments for maternal depression in the postnatal period (mDPP) I became

increasingly intrigued by the relative dearth of psychological research relating to relationship formation between father and child compared to the vast collection for mothers. The more I read, the more I realised research relating to fathering had come a long way from the 'forgotten fathers' of recent decades. Nevertheless, I found fathers unable to access the childbearing service given that the entry criteria related to maternal symptomatology alone. I had heard stories from the women and worked with them clinically, yet was left feeling somewhat professionally unsatisfied and somewhat concerned as to how men were left to manage, living within the midst of their partner's difficulties.

3.1.3 *Personal experiences of parenthood*

I was interested in how my own personal experiences of being fathered may impact on the interpretative process and was able to reflect and monitor how I responded to the individual accounts of the participants, particularly when certain themes resonated at a personal level. During both interview and particularly analysis, I was careful to make sure I stayed close to the participants' accounts with interpretation grounded in the data.

This research topic was made even more salient, when I became a mother shortly after entering my third year of training. Having some understanding of the experience of parenting a new baby, having watched my husband transition into a father, and having openly shared my experiences in friendships has been valuable in highlighting the challenges that new parents face.

I was surprised that I could partly identify with some of the accounts, particularly relating to tiredness and sleep deprivation. On occasion, I found I moved into shock, fear, and worry for the welfare of all the members of the family during the interviews and analysis. The importance of accessing supervision and guidance relating to any child protection concerns was especially highlighted at these times, along with making use of my own internal supervisor and acquired clinical skills in the assessment of risk during interviews.

4 SELECTION OF QUALITATIVE METHODOLOGY

During my undergraduate degree I studied sociology, women's studies, and anthropology alongside psychology and had been interested in emic and etic perspectives and ethnographic accounts of various peoples, yet qualitative research remained elusive as I focussed my psychology studies within the positivist position. I perceived qualitative methodology as rather high-brow and something I was fearful of being able to manage along with being engulfed with data.

During clinical training and associated individual clinical work, I became increasingly aware of my opinion of the importance for an individual to have their rich accounts heard, validated, and contained and as such, decided to face the challenge of engaging in a qualitative study.

5 THE RESEARCH PROCESS

5.1 Planning

Given my inexperience in research within the NHS, I explored my ideas and potential research questions with my identified supervisor within the childbearing service, and determined typical referrals to ensure potential availability for recruitment. Additionally, discussions led me to consider inclusion and exclusion criteria that may have affected homogeneity of the sample (e.g. parents with more than one child, children with disabilities). Key decision points at this time included the method of recruitment through the service as a means to ensure the presence of clinical mDPP. In addition, I also decided to exclude the partners of women who had been admitted to the in-patient unit as this brought additional stressors to the family including separation of the family unit for the duration of the mother's stay; all factors I believed a worthwhile topic of study in its own right.

Initial ethical approval went relatively smoothly, given the preparation and use of academic supervision, and I now feel I have the knowledge and confidence to negotiate ethics procedures and committees, liaise with NHS Trust research and development teams (R&D) and relevant professionals.

5.2 Participant Recruitment

Prior to taking maternity leave, recruitment had not elicited any interest in the study, despite efforts to liaise with team members and keep their motivation of the study, develop my communication skills about the research, and reflect on the adequacy

of the recruitment materials. I felt desperate and explored recruitment with another NHS Trust, which due to staff resources, was unable to come to fruition.

The difficulties with the recruitment process continued upon my return and were frustrating, stressful and exceptionally de-motivating, given other stressors I faced at the time. I viewed the extra fight involved for the additional ethics resubmission and additional recruitment site as exceptionally 'unwelcome medicine'; however, I now appreciate this as a time of invaluable learning in managing the planning and process, overcoming difficulties when they present, and more importantly for me, knowing when to move research site, how to juggle multiple demands and maintain motivation through adversity. I now also see the value in seeking support from individuals interested in the research area, finding in them great solace and motivation to carry on and found this helped me gain a balanced view to maintain professional relationships with the staff at the unit, given I was also on clinical placement there. In hindsight, recruitment may have benefited from using other methods (e.g. newspaper or online forums), and this is certainly something I would consider in the initial ethics applications when planning future studies.

5.3 The Interview Process

Throughout the interview process, I felt I was experimenting with Holloway and Jefferson's (2002) interview techniques with defended subjects by using open questions and encouraging free association. I found this initially uncomfortable and different to the clinical skills I had developed, however, my confidence to move away from the interview schedule gradually increased, although at times I felt uneasy with letting the

participant go further into their personal history than what I deemed perhaps necessary. Nevertheless, I was curious as to what participants would bring and how these meanderings may influence interpretation, and now feel more able to gauge the relevance of my contributions within this interview style. Listening to the recordings following an interview was challenging as I found I had wished I had asked certain questions 'better' or probed more, although despite this initial difficulty, I found this helpful in adapting my technique for later interviews.

5.4 Power, Roles, and the Male-Female Relationship

Prior to the interviews, I wondered how being female would impact on the interview relationship, and was a little surprised at how anxious I felt about being an outsider to the male experience and at my heightened awareness of my femininity and mothering role. In particular, I was interested how being female may influence the interview, either by what I personally would bring to the interview, but also what role the participants would potentially project onto me following any potential previous contact with female professionals delivering interventions related to their partners' depression.

I noticed I was careful not to wear makeup, dressing in trousers and high-necked tops for the interviews, and later reflected that this was something I had previously done working with the young offenders in an attempt to reduce the young men's sexually provocative comments being directed at me. I reflected I may have been returning to this safety behaviour due to anxiety over how I may be perceived or impact on each participant's engagement within the interview.

Throughout the course of the interviews I became increasingly aware of the role participants may have projected onto me, and found supervision an invaluable place to discuss how I may have influenced the content of the interview by triggering participants' attachment strategies, as well as by my own experiences brought to the interview. The roles and resultant potential power differentials that I felt had come up within the interviews included being perceived as: a 'feared academic/intellectual'; 'analysing clinician'; an 'idealised woman/partner'; 'judgemental woman'; 'feeble woman' unable to cope with male technology (e.g. digital recorders); and 'young and inexperienced'. Consequently, I developed my understanding of how participants may present their experiences to me and how this might have impacted on their disclosure of more emotionally challenging content. On reflection, I would have liked to take this further into the interpretative process yet felt too inexperienced being a novice in the method, which may have impaired the interpretative process.

Additionally, I found myself adopting the subservient role especially at the beginning of the interview process, although it partly enabled the participant to feel power in the interview, to feel listened to and to facilitate rapport by reducing any threats for the participants which were uncovered by the research topic.

5.5 Data Analysis

Interpretative Phenomenological Analysis (IPA) had interested me due to the level of creativity that could be applied during the analysis of the data within this

methodology. In practice, the potential for creativity with the data was initially overwhelming, and I felt paralysed as to where I could take the analysis whilst remaining close to the data. Gradually my confidence increased, and I now believe that this uncertainty was healthy and enabled me to ensure validity of the results by reigning in any potentially superfluous or tangential interpretations. I gained confidence by being able to share the initial concerns of analysis with my peers using IPA methodology going through similar experiences, and this process also enabled triangulation of data.

The emotional content in some interviews occasionally felt suffocating, so I found doing analysis outside in the sunshine in a clearing in the woods away from people enabled more full immersion. I needed to take frequent time out and do something else related to the research and found this a significant learning point in that this was actually beneficial to the analytic process. I considered my tendency to need space from analysis and interpretation may also have been an element of counter-transference, reflecting participants' involvement with their partner's distress yet also their need for escape.

Another significant learning point was the experience of the hermeneutic cycle, moving through stages of being overwhelmed with the data, making tentative analysis, joyful clarity which again quickly followed with deflation and despair at being uncertain. Once I became accustomed to this, I became more able to identify when it was happening and the stage I was going through, and ultimately felt comforted knowing that enhanced clarity would again soon follow.

Occasionally, I became stuck with some aspects of analysis of the data and learnt to overcome this by reading sentences backwards or cut out quotes to move away from the participant dialogue, leading to richer interpretation and later theme generation. The length of the interviews occasionally felt arduous and frustrating as I went into deep analysis making links with the participant's history presented within interview and social background, for example, yet knew this may be lost in synthesis with other interviews and due to the limited word count.

At times, analysis was drawn into the coping literature, reflecting what I believed to be indicative of each participant's personal journey. Participants were motivated to attend and I became aware of the stage they were at in processing their events (e.g. some had received support through fathers' groups, others had little involvement with professionals), and the feel of the interviews was very different, with some tentatively exploring, others taking a more reflective and summative approach – processing and reflecting on how they coped and 'got through' their partner's depression and new fatherhood. Although I wasn't their therapist, I could not disband myself from my training as a clinical psychologist, and I believe I took their occasionally incoherent stories and delivered it back in a (hopefully more) coherent form in the research report– essentially as a means of containment of their distress.

5.6 Writing Up

My experience of writing up the research enabled me to discover how the analytic process continued to flow and expand the depth of analysis by generating new questions and ideas. I became very self-conscious of maintaining anonymity, and *very* aware when choosing quotes about how easily their partner may recognise them and the ethical consequences for the family or relationship. In supervision, I reflected how this was partly brought by my own feelings of personal responsibility coupled with the initial responses to particular interviews, which left me with the impression that engaging within the interview had opened up a proverbial 'can of worms' for their particular marital relationships.

I became frustrated as I felt the write-up could not do complete justice for each participant's idiosyncratic account as so much rich data was generated, and I had to resist the temptation to thoroughly write up analysis from just one or two interviews for the research report. I significantly reduced the number of quotations as initially I was over-inclusive in representing each theme, driven by my strong ethical commitment to the participants and view that all accounts were relevant and important. I consider this was especially strong as I felt a sense of loyalty and duty to get their stories heard, given some participants were so candid and the interview having been their first means of expressing their experiences.

6 REFLECTIONS ON PERSONAL AND PROFESSIONAL DEVELOPMENT

6.1 Personal Development

Finishing this research coupled with highly emotive clinical work alongside my personal life was a huge challenge to overcome. At times I felt overwhelmed by the prominence the research and clinical training took in my personal life, and despite my residual desire to see the course through to the end, I *seriously* contemplated handing my notice in on a number of occasions. I wonder now if this was partly parallel process and may reflect some participants' desperate searching over whether their troubled relationship with their partner would end. I found writing reflections in the research diary helpful along with increasing my own help-seeking behaviour and allowing myself occasional time out to reconnect with my personal life.

6.2 Professional Development

6.2.1 *Research skills*

The research process of the current study has enabled me to develop skills in: designing a study and conducting interviews to address specific research questions; generating recruitment from participant groups often excluded from services; transcribing, analysing and interpreting data within IPA methodology; and, linking research findings with psychological theory. Additionally, I now recognise I am frequently overly optimistic in estimating how long tasks take to complete, which I can partly attribute to inexperience of doctoral research process and adapting to time demands of motherhood. I now feel more able to set realistic time schedules by at least tripling any timescale I initially estimate.

On reflection, I have actually enjoyed the research process and using qualitative methodology and feel very excited that so many new questions have been generated from the study. I look forward to continuing the analysis and hopefully publishing, once I have spent some time reconnecting with my family. I feel privileged the participants decided to share this part of their lives with me, and would like to see more fathers coming forward to discuss their experiences to promote social change and enhance the provision of services.

7 REFERENCES

Holloway, W., & Jefferson, T. (2002). *Doing Qualitative Research Differently: Free Association, Narrative and the Interview Method.* London: Sage Publications.

APPENDICES

Appendix A

Definition of terms

Infant Temperament Dimensions

Activity level frequency, speed, vigor of gross motor movement and locomotion. Imposed inactivity poorly tolerated.

Adaptability behavioural inhibition, positive and negative reactivity in response to novel stimuli (e.g. people, situations).

Approachability reactivity and approach to new stimuli.

Attention regulation ability to regulate attention.

Attention/persistence ability to focus and control attention for voluntary behaviour.

Behavioural inhibition/fear inhibition of behaviour in response to unfamiliar people/situations.

'***Difficult child***' defined as arrhythmic, withdrawing, non-adaptable, intense, and negative – more likely to develop mental health problems.

Difficult iT characterised by the primary behavioural indices of *infant adaptability* and *predictability*.

'***Easy child***' regular, approaching, adaptable, mild and positive – little link to behavioural problems.

Excessive crying defined as frequent and long crying episodes.

Intenstity of behaviours and emotional reaction.

Irritability/frustration aggressive or irritated behaviour in response to painful and /or frustrating stimuli.

Motor activity intensity and frequency of motor movements.

Negativity/Negative Affectivity/Emotionality characterised by discomfort, distress, sadness, anger/frustration, fear, shyness, and low soothability.

Positive emotionality tendency to experience positive emotions, usually associated with approach behaviours (e.g. positive anticipation, investigation, eagerness).

Reactivity intensity of physiological response to stimuli.

Regulatory Capacity/Effortful Control includes inhibitory control, attention, perceptual sensitivity, and low-intensity pleasure.

Rhythmicity the regularity of biological rhythms e.g. sleep-wake cycles,

Sensory sensitivity ability to react to sensory stimuli e.g. visual, auditory, or tactile of low stimulative value, proneness to sensory discomfort.

'***Slow-to-warm-up child***' inactive, withdrawing, nonadaptable, mild, negative – reactive disorders.

Sociability positive emotionality.

Surgency/Extraversion including activity level, high-intensity pleasure/risk-seeking, impulsivity, positive excitement, smiling and laughter, low shyness and rapid approach tendencies. Shows strong similarities to the personality construct of extraversion.

Appendix B

Letters to and from Ethics

Approval:

North Nottinghamshire Research Ethics Committee

1 Standard Court

Park Row

Nottingham

NG1 6GN

Telephone: 0115 8839390 (Direct Line)

Facsimile: 0115 9123300

21 April 2009

Miss Kristina M Keeley

Department of Clinical Psychology

University of Leicester

104 Regent Road

Leicester

LE1 7LT

Dear Miss Keeley

Full title of study: **Experiences of supporting partners with postnatal depression: Fathers' lived experiences of the developing relationship with their infant**

REC reference number: **09/H0407/15**

The Research Ethics Committee reviewed the above application at the meeting held on 6 April 2009. Thank you for attending to discuss the study.

Documents reviewed

The documents reviewed at the meeting were:

Document	*Version*	*Date*	
Participant Consent Form	1	17 March	

		2009	
Participant Information Sheet	1	17 March 2009	
Protocol	1	17 March 2009	
Investigator CV		17 March 2009	
Application	16368/3094 1/1/531	17 March 2009	
Response to Peer Review		06 March 2009	
Self-Report Demographic Sheet	1	17 March 2009	
content for Poster/Flyer	1	17 March 2009	
Letter of invitation to participant	1	17 March 2009	
Interview Schedules/Topic Guides	1	17 March 2009	
Peer Review		22 January 2009	
Investigator CV	Academic Supervisor		

Provisional opinion

The Committee would be content to give a favourable ethical opinion of the research, subject to receiving a complete response to the request for further information set out below.

- The Committee discussed with you the ethical issues around recruiting participants via posters/flyers in waiting areas. You stated that primarily, you would recruit via the mother/Clinician. The Committee indicated *that you should remove this method of recruitment via poster/flyer, or have a clearer process for recruiting by this means that addressed the ethical issues that were raised.*
- The Committee discussed the exclusion criteria with you and the implications of excluding those fathers where this may not be their first child. The Committee informed you that this *exclusion should be applied prior to recruitment or alternatively, if you wish to apply it following*

enrolment, justification should be supplied together with a process which minimises any potential impact. It should be also be made explicit in the Participant Information Sheet (PIS) that exclusions may be made following recruitment so that participants do not feel aggrieved or surprised that they are unable to continue in the study.

The Committee delegated authority to confirm its final opinion on the application to the Chair.

Further information or clarification required

1. The Committee agreed that you should remove the recruitment method via the poster/flyer method from the study. However, if you still wish to undertake additional recruitment via this means this would need to be justified, and a clearer process should be submitted to the Committee.

2. The Committee agreed that if you still wish to apply exclusions, as discussed at the meeting, they should be applied prior to recruitment or alternatively, you should justify why they are applied after recruitment, and describe a process which minimises any potential impact. It should be also be made explicit in the Participant Information Sheet (PIS) that exclusions may be made following recruitment.

3. The Committee felt that the PIS was overly repetitive and should be condensed for easier reading. There is also too much jargon e.g. 'pseudonym', verbatim' etc. and should be removed or simplified. There are also some overstatements e.g. 'You will take part…' etc. These should be softened to e.g. 'You will be asked to take part…' etc.

Page 2 of the PIS, 1st paragraph, the wording relating to the place where interviews will be taking place is contradictory i.e. firstly it mentions it will take place at 'the unit' and the next sentence it states they will be held 'at a time and place convenient to you…..either at your home or in a private room at 'the unit'. This should be amended accordingly.

Under heading 3. 'Are there any disadvantages of taking part in the study?', on page 2 of the PIS, the Committee request that the wording 'It is unlikely that taking part in this study will be a disadvantage or pose a risk to you.' etc. be amended as it appears too positive. The wording should be replaced by a text which acknowledges the small potential for taking part to cause distress and the time commitment that is required.

Under the heading 4. 'Are there any potential benefits to taking part? On page 3 of the PIS, the words 'are vital to' in the 1st sentence should be removed.

Under heading 5., 'Will taking part in this study affect my, my partner's, or my infant's treatment or care?, in the PIS, it states that participants can withdraw from

the study ‘at any time’. However, this may not be the case e.g. following analysis of the data, on publication of the findings etc., therefore, it should be amended to state ‘up to’ what stage they can withdraw.

A mechanism for complaints should be made explicit in the PIS. This should include a name (e.g. departmental name) and contact telephone number where participants may complain should they wish to. This should be a department independent of the research e.g. the Trust’s Patient Advice and Liaison Service (PALS) etc.

The closing statement on page 6 of the PIS, the last sentence ‘I look forward to meeting you.’ should be removed, as it is too coercive.

There should be clear process outlined in the PIS, how the results of the study can be obtained by participants.

4. In the Consent Form the statement ‘I understand that relevant sections of my medical notes and data collected during the study, may be looked at by individuals from [company name], from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.’ should be included, as detailed in the guidelines for consent on the NRES website at www.nres.npsa.nhs.uk

5. In the last paragraph of the Invitation Letter, the words ‘…and hope to hear from you soon.’, should be removed, as it is too coercive.

When submitting your response to the Committee, please send revised documentation where appropriate underlining or otherwise highlighting the changes you have made and giving revised version numbers and dates.

The Committee will confirm the final ethical opinion within a maximum of 60 days from the date of initial receipt of the application, excluding the time taken by you to respond fully to the above points. A response should be submitted by no later than 19 August 2009.

Ethical review of research sites

The Committee agreed that all sites in this study should be exempt from site-specific assessment (SSA). There is no need to submit the Site-Specific Information Form to any Research Ethics Committee. However, all researchers and local research collaborators who intend to participate in this study at NHS sites should seek approval from the R&D office for the relevant care organisation.

Membership of the Committee

The members of the Committee who were present at the meeting are listed on the attached sheet.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

If you have any queries about the content of this letter, please contact the Coordinator.

09/H0407/15	**Please quote this number on all correspondence**

Yours sincerely

Dr David Walsh

Chair

Email: trish.wheat@nottspct.nhs.uk

Enclosures: *List of names and professions of members who were present at the meeting and those who submitted written comments.*

Copy to: *David Clarke - LPT*

R&D Department for NHS care organisation at lead site –

University of Leicester
104 Regent Road
Leicester
LE1 7LT

Dr David Walsh
North Nottinghamshire Research Ethics Committee
1 Standard Court
Park Row
Nottingham
NG1 6GN

19 May 2009

Dear Dr Walsh

Full title of study: **Experiences of supporting partners with postnatal depression: Fathers' lived experiences of the developing relationship with their infant**

REC reference number: **09/H0407/15**

Thank you for your correspondence relating to the amendments advised by the Committee at the Research Ethics Committee meeting held on 6 April 2009.

Please find enclosed the following documents: the amended research protocol Version 2 dated 1 May 2009; the Letter of Invitation to Participants Version 2 dated 1 May 2009; Participant Information Sheet (PIS) Version 2 dated 1 May 2009; and the Consent form Version 2 dated 1 May 2009. Amendments have been underlined as requested. Previous wording is shown and has been formatted using the strike-through function, as stated in the guidelines on notices for amendment on the NRES website at www.nres.npsa.nhs.uk.

My responses to the amendments advised by the Committee are presented below.

Amendments

1. The Committee agreed that recruitment via the poster/flyer method be removed from the study or justify this means if recruitment via this method was still to go ahead. My response has been to remove the entry in the

research protocol regarding poster recruitment (please see Page 13, paragraph 3). Appendix A has been deleted from the protocol – Appendices now begin from Appendix B.

2. The Committee agreed that if exclusions were to be applied they be done prior to recruitment or be justified why they are applied after recruitment. My response is that any exclusions will be applied prior to recruitment by the clinicians recruiting for the study via records (if available) and on discussions with the mother. In light of this, any father who then contacts the principal researcher and volunteers to take part in the study will be interviewed. In the research protocol, page 13, paragraph 1, 'prior to recruitment' has been added to the following sentence 'Professionals, including community nurses… will identify mothers that meet the inclusion and exclusion criteria'.

The sentence 'The principal researcher will then contact all those who have indicated interest or agreed to take part in the study and a further check will be undertaken to ensure all inclusion and exclusion criteria are met.' has been removed from the research protocol from paragraph 3 (page 13).

3. The Committee requested that the PIS be condensed for easier reading and the jargon and overstatements be amended.

a) In response to the committees request to condense the PIS for easier reading, various sections of text have been removed or amended which can be seen in text formatted with the strike-through function and underlined text, respectively.

For example, on page 1, paragraph 2, the wording '…further or if there is anything you are unclear or unsure of' has been added. The wording 'if there is anything you are unclear of …' has been deleted from paragraph 3, page 1.

Examples of some of the deletions due to repetition within the PIS include:

- 'feel free to contact either myself…'under heading 3 *'Are there any disadvantages to taking part in the study?'* page 2;
- '…will inform current research…'under heading 4 *'Are there any potential benefits to taking part?'* page 3;
- ' if you decided not to take part or wish to withdraw from this study…. informing the current information on postnatal depression and anxiety' and later in the same section '…although the study may be helpful in informing the service… to identify you or the information from your interview in any way.'under heading 5 '*Will taking part in this study affect my, my partner's, or my infant's treatment or care?'* page 3;
- 'transcriptions of the interview….we agree at interview'paragraph 5 page 4; and
- 'inform the current literature relating…' paragraph 6 page 4.

b) Jargon has been amended as requested by the Committee, for example, 'pseudonym' has been changed to 'different name to use' (page 4, paragraph 3), and 'verbatim' has been deleted and changed to 'sections of your interview may be used word for word' (page 4, paragraph 4).

c) Overstatements have been amended and softened as requested by the Committee, for example, 'you will take part' has been changed to 'you will be asked to take part…' (page 2, paragraph 1), and 'if you decide to take part' has also been added on page 2, paragraph 2. Further amendments have been made as necessary within the documents.

d) On page 2 of the PIS, 1st paragraph, the wording relating to the place where interviews will take place was contradictory. My response has been to remove the text '…which will be arranged at the (name of Unit), at a time for your convenience.' and replace with 'Interviews will take part at a time convenient… either at your home or in a private room at (name of Unit)'.

e) The Committee noted that under heading 3 'Are there any disadvantages of taking part in the study?' on page 2 of the PIS, that the wording 'It is unlikely that taking part in this study will be a disadvantage or pose a risk to you.' etc. be amended as it appears too positive. My response to acknowledge the small potential for taking part to cause distress is indicated under heading 3, page 2 with a change in wording from 'It is unlikely that taking part in this study will be a disadvantage or pose a risk to you' to 'if you take part in this study there is a small potential for distress as the interview questions ask…'. In the same paragraph, an addition has also been made acknowledging the time commitment involved 'This study also requires a small time commitment which you may feel is inconvenient.'

f) Under heading 4 **'***Are there any potential benefits to taking part?'* on page 3, the Committee requested that the words 'are vital to' in the 1st sentence be removed. My response has been to remove them accordingly and change the wording to 'are likely to'.

g) Under heading 5 '*Will taking part in this study affect my, my partner's, or my infant's treatment or care?'* amendments to the wording relating to when participants can withdraw from the study. My response has been to remove the text '…withdraw from the study at any time…' from heading 5. New details have been added under heading 9 '*What if I want to withdraw from the study'* on page 5 'if you decide that you consent to take part in the study you are free to withdraw at any time up until the data has been analysed. Following data analysis, it will not be possible to withdraw from the study.'

h) The Committee requested that a mechanism for complaints should be made explicit in the PIS. My response has been to add Section 11 (page 6) of the PIS to inform participants of the procedure for making a complaint to the Trust's Patient Advice and Liaison Service (PALS).

i) The Committee indicated that the closing sentence 'I look forward to meeting you' on page 6 of the PIS was too coercive and was to be removed. My response has been to remove the sentence as requested.

j) A clear process of how the results of the study can be obtained by participants was requested by the Committee. My response has been to add further information under heading 7 'Where can I get a copy of the study findings?' on page 5.

4. The committee instructed that the statement *'I understand that relevant sections of my medical notes and data collected during the study, may be looked at by individuals from [company name], from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.'* be added to the consent form. Please see additional text in paragraph 4 of the Consent form for the addition in response to this request.

5. In the last paragraph of the Invitation Letter, the words '…and hope to hear from you soon.' were deemed too coercive and my response has been to remove this sentence on page 2. The text now reads 'I would like to thank you for taking time to read this letter'.

If you have any questions relating to the above changes, please do not hesitate to contact me at the above address.

Yours Sincerely

Kristina Keeley

Trainee Clinical Psychologist

University of Leicester

Appendix C

Letters to and from Ethics - resubmission

University of Leicester
104 Regent Road
Leicester
LE1 7LT
0116 223 1639

Mr Robert Johnson
The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

21 January 2011

Dear Mr Robert Johnson

Full title of study: **Experiences of supporting partners with postnatal depression: Fathers' lived experiences of the developing relationship with their infant**

REC reference number: **09/H0407/15**

I am writing to inform you that I have been experiencing considerable difficulties in the recruitment of participants for the above research study. Consequently, I have completed the application for substantial amendments to the study.

Please find enclosed the following documents: the notice of substantial amendments form; the new site-specific form; the amended research protocol Version 3 dated 11 January 2011; the flyer Version 1 dated 11 January 2011; and the self-report demographics sheet Version 2 dated 11 January 2011. Amendments have been underlined and deleted text has been formatted using the strike-through function, as stated in the guidelines on notices for amendment on the NRES website at www.nres.npsa.nhs.uk.

My descriptions of the amendments to the protocol and additional supporting documents are presented below.

Amendments

1. Study Design: Page 11, paragraph 4. Added text ‘or have recently experienced’ and removed text ‘support from health professionals for’.
2. Clinical setting for research: Page 12, para. 2. Added text ‘primarily’; Page 12, para 3. Added text paragraph from ‘Further recruitment will be made…’ to ’…as well as offering outpatient services’.
3. Participant identification: Page 13, para 1. Removed text ‘outpatient or community…’ and added text ‘ the childbearing…’; Page 13, Para 2. Added text from ‘Additionally, fathers who…’ to ‘able to take part’.
4. Participant recruitment: Page 13, para 4. Added text ‘Further recruitment will be…’. Page 14, para 1. Added text from ‘A flyer…’ to ‘support groups in the locality’.
5. Potential problems in recruitment: Page 14, para 4. Added text from ‘ As recruitment of potential…’ to ‘be clearly specified on the flyer’ (continued to page 15).
6. Inclusion/exclusion criteria: Page 15, para 2. Added paragraph text from ‘Where possible, inclusion and exclusion…’ to ‘if their partner does not have PND etc.’
7. Inclusion criteria: Page 15, para 3. Added text ‘the clinicians at the research sites as’, ‘and are accessing/have recently accessed services’, and ‘Similarly, fathers who respond to the flyer…’; Page 16, para 1. Deleted text ‘Fathers whose partners are…’; added text ‘Participants may have more than…’; deleted text ‘Both mother and father must…’.
8. Exclusion criteria: Page 16, para 2. Deleted text ‘have previously received or’; added text ‘as the women may be too…’; deleted text ‘ admission will have…’; added and deleted text from ‘as the women may be…’ to ‘prior to contacting potential participants’. Bottom of page 16, para2. Added text ‘if known by the childbearing…’; deleted text ‘Fathers will be excluded if…’.

Amendments to self-report demographic sheet

1. Page 2, entry 2. Added text ‘Please state the number of children you have: I have ..... children.’

Additional Documents

A flyer has been composed to assist in recruitment. It will be made available to potential participants via clinicians involved in recruitment for the study and will also be distributed at relevant father self-help groups.

If you have any questions relating to the above, please do not hesitate to contact me at the above address or contact telephone number.

Yours Sincerely

Kristina Keeley

Trainee Clinical Psychologist

University of Leicester

Nottingham Research Ethics Committee 1
The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

Tel: 0115 8839390 (Direct Line)
Fax: 0115 9123300

02 February 2011

Miss Kristina M Keeley
Department of Clinical Psychology
University of Leicester
104 Regent Road
Leicester
LE1 7LT

Dear Miss Keeley

Study title: **Experiences of supporting partners with postnatal depression: Fathers' lived experiences of the developing relationship with their infant**

REC reference: **09/H0407/15**

Amendment number: **1**

Amendment date: **29 January 2011**

Thank you for submitting the above amendment, which was received on 01 February 2011. I can confirm that this is a valid notice of a substantial amendment and will be reviewed by the Sub-Committee of the REC at its next meeting.

Documents received

The documents to be reviewed are as follows:

Document	Version	Date	

Self-report Demographic Sheet	2	11 January 2011	
Flyer	1	11 January 2011	
Protocol	3	11 January 2011	
Notice of Substantial Amendment (non-CTIMPs)	16368/184106/13/403/5265	29 January 2011	
Covering Letter		21 January 2011	

Notification of the Committee's decision

The Committee will issue an ethical opinion on the amendment within a maximum of 35 days from the date of receipt.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval for the research.

09/H0407/15: Please quote this number on all correspondence

Yours sincerely

Ms Trish Wheat

Committee Co-ordinator

E-mail: trish.wheat@nottspct.nhs.uk

Copy to: *R&D office for NHS care organisation at lead site – Derbyshire Mental Health Services NHS Trust*

Mr David Clarke – Leicestershire Partnership Trust

Page for trish wheat email favourable opinion from ethics

Appendix D

Letter of invitation to participants

Trust Logo

Letter of Invitation to Participants

Experiences of Supporting Partners with Postnatal Depression

January 2011

Dear Father

I am contacting you about a current study that I thought you might be interested in hearing about. The study is being conducted by me, Kristina Keeley, Trainee Clinical Psychologist, I am currently a third year on the University of Leicester Doctorate of Clinical Psychology training programme.

Aim of the study: The purpose of this study is to explore the experiences of fathers who are supporting partners with postnatal depression. In particular, I will be exploring fathers' relationship with their baby.

If you decide you would like to take part, you will be asked to participate in a one to two-hour interview at an NHS site in a private room, at your home, or a place of your convenience, whichever is more convenient for you. This interview will be on a one-to-one basis with myself and you will be asked questions relating to your experiences of postnatal depression and your developing relationship with your baby.

As your partner is, or has recently been, a client within the Childbearing and Mental Health Service, your input would be very valuable. It is hoped that the results of this study will inform current care relating to postnatal depression.

If you would like to take part in this study (details of which are given on the [information leaflet/flyer] enclosed) or have any questions, please contact either me on the telephone number below. Interviews will be taking place from **Date**.

Trust Headquarters: Tel: Fax: Chariman:

I would like to thank you for taking the time to read this letter. If you have any queries, please feel free to contact me directly on the telephone number or by correspondence to the address below.

Contact details: **Kristina Keeley**

Tel:

Address: **(Name of Unit)**

Yours Sincerely

Kristina Keeley

Trainee Clinical Psychologist

Supervised by

Michelle Cree

Consultant Clinical Psychologist

Appendix E

Participant flyer

Blank for flyer

Blank for flyer

Appendix F

Interview schedule

Can you tell me your thoughts about what your partner has been experiencing? Examples?

Tell me about your baby. How would you describe your (experiences with your) baby when s/he was born.

- How do your experiences of your baby compare to your expectations?

What was your experience of the transition to fatherhood/having a new member of the family?

- Any ways depression influenced this transition?
- Can you tell me about any challenges you faced at this time?

How do you feel your relationship with your baby has been influenced by your partner's depression?

Tell me about a time when you were with your baby...

- Are there any ways in which depression affected the way you interact with your baby?
- Are there any ways in which you change the way you are with your baby when wife/partner is/was around? Examples?

How might things have been different if depression wasn't there: fatherhood / relationship with baby?

How do you think your friends and family would describe your experiences? E.g.?

If your baby/child was able, what do you think s/he would say about your experiences?

Can you tell me about any positive consequences of depression in your life/relationship with your baby?

Examples of prompts

- *Can you think of any examples?*

Appendix G

Participant Information Sheet

Participant Information Sheet

Experiences of Supporting Partners with Postnatal Depression

Principal Investigator: Kristina Keeley

You may contact Kristina:

Email: **kmk8@le.ac.uk**

Tel:

Address: Clinical Psychology

University of Leicester

104 Regent Road

Leicester

LE1 7LT

You are being invited to take part in a one-to-one interview. It is important for you to understand the aims of the study and what it will involve before you decide whether you would like to take part. Please take your time to read the following information carefully.

If you wish to discuss this further or if there is anything you are unclear or unsure of with myself, (staff at unit), or your key worker/therapist please feel free to do so.

Please take time to decide whether or not you wish to take part.

Thank you for taking the time to read this information.

1. What is the purpose of the study?

The purpose of this study is to find out how fathers experience their partner's postnatal depression and explore the relationship with their baby.

2. What will be involved if I take part in the study?

It is up to you whether or not you would like to take part in the study. If you agree to take part then you will be required to contact me on the telephone number or address above.

You will be asked to take part in a one-to-one interview which will last between one to two-hours. If you decide to take part, the interview will focus on your experiences of your partner's postnatal depression and your relationship with your baby. Interviews will take part at a time convenient to you, either during the day up or in the evening either at your home or in a private room at the (name) Unit. After the interview you will be asked to complete a short form asking a few details about yourself, your partner and your baby. At no time will you be asked to disclose the name or identity of your partner or your baby.

Interviews will start from January 2011 and be completed by the end of July 2011 at the latest.

3. Are there any disadvantages to taking part in the study?

If you take part in this study there is a small potential for distress as the interview questions ask about personal feelings and thoughts relating to how you have experienced your partner's postnatal depression and your relationship with your baby. If you decide to take part and you start to feel upset during the interview, you do not have to continue it if you do not wish to. This study also requires a small time commitment which you may feel is inconvenient.

4. Are there any potential benefits to taking part?

Your experiences, views and comments are likely to enhance current understanding of postnatal depression, and its impact on fathers and infants. This is a valuable opportunity for you to provide your comments and suggestions relating to your experiences. The results of this study may provide information to support any future developments of services. In addition, you will be offered a £10 retail voucher as a small token of thanks for the time and effort you have given to take part in this study.

5. Will taking part in this study affect my, my partner's, or my infant's treatment or care?

No. Your decision to take part or not or withdrawing from the study will have no impact on the type of care or treatment you, your partner or your infant receives, either currently or in the future. The study will not alter the choices that are currently offered or provided to you or your partner by the (name) Unit mother and baby service.

6. I don't want people to know I have taken part. Will my information be kept confidential?

All information that is obtained from the interview and information sheet will be strictly confidential and will be anonymised. No medical records are needed for the study and no outside agencies are to use the information collected. We do not inform your GP of your involvement in the survey.

If this information leaflet is passed to you by your partner I will think that your partner has consented to you taking part in this study. No information relating to you or your interview will be discussed with your partner at any time. However, if you wish to discuss the contents of the interview with your partner or with others you are free to do so.

Any interview data will be anonymised by agreeing a different name to use with you at the interview.

As part of the write-up of the study, due to the method of data analysis, sections of your interview may be quoted word-for-word. The reader will not be able to identify you in any way as all personally identifiable material will be anonymised

No personally identifiable information will be stored on a computer. Any personal information relating to you will be stored in a locked cabinet on NHS Trust premises for the analysis and then will be destroyed once transcription is completed. Digital recordings will be transcribed using the agreed name and then the recording will be destroyed in accordance with Trust and University guidelines.

On completion of this study, it is anticipated that the findings and any implications will be used to educate staff involved at the (name) Unit. The findings will be written up as a thesis for the partial fulfilment of the Doctor in Clinical Psychology training program, and the findings might be published in peer-reviewed journals, made available on relevant websites and be presented at a conference relating to postnatal depression. NO participant will be identifiable in any publication relating to the study.

7. Where can I get a copy of the study findings?

Summary reports of the study outcomes will be made available for collection from the (name) Unit once the write-up has been completed (from approximately September 2011 onwards). Alternatively, you can contact Kristina, or (staff) at the (name) Unit and a copy can be posted to you.

8. What if I don't want to take part in the study?

Participation in this study is entirely on a voluntary basis. You do not have to take part in this study if you do not wish to. If you decide that you do not want to take part in the study it will not affect you, your partner's or your baby's care either positively or negatively, now nor in the future.

9. What if I want to withdraw from the study?

If you decide that you consent to take part in the study you are free to at any time up until the data has been analysed. Following data analysis, it will not be possible

to withdraw from the study. If you decide to withdraw from the study, any personal information for the study relating to you and any interview data will be destroyed.

10. What if I am harmed by the study?

The NHS Trust provides indemnity insurance and this is similar to the insurance cover as for patients undergoing treatment in the NHS. Compensation is only available if negligence occurs.

If at any time you become distressed during this study you may stop the interview at any time. If, on discussion with you, you would like to be referred for further support, I will discuss with you how you may access the services you need.

If you disclose any information expressing beliefs (or are acting in a way) that is harmful to yourself/others or if I feel that others are at risk I will need to discuss this with you and also inform other professionals as necessary in order to get the appropriate support for you.

11. What if I want to complain?

If you wish to make a complaint to someone independent of the research, you can contact the (name of trust) Trust Patient Advice and Liaison Service at:

Address

Or on the following number:

Tel no

Thank you for your time and cooperation.

Appendix H

Consent form

Participant Consent Form
Experiences of Supporting Partners with Postnatal Depression
Principal Investigator: Kristina Keeley

Trust Logo

This form should be read in conjunction with the Participant Information Sheet, version no 2 dated 1 May 2009.

Please tick box and initial to indicate you have read and understood

I agree to take part in the above study as described in the Participant Information Sheet. ☐

I understand that I may withdraw from the study at any time without justifying my decision and without affecting my, my partners or my infants normal care and medical management. ☐

I understand that all the information I give will be treated as confidential. ☐

I understand that relevant sections of my medical notes and data collected during the study, may be looked at by individuals from Leicestershire Partnership NHS Trust, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in the research. I give permission for these individuals to have access to my records. ☐

I understand medical research is covered for mishaps in the same way as for patients undergoing treatment in the NHS i.e. compensation is only available if negligence occurs. ☐

The nature and the purpose of the study to be undertaken have been explained to me and I understand what will be required if I take part in the study. ☐

I have read the Participant Information Sheet on the above study and have had the opportunity to discuss the details with Kristina Keeley and ask any questions. ☐

Signature of patient.....Date.....

(Name in BLOCK LETTERS) …….....
I confirm I have explained the nature of the study, as detailed in the Patient Information Sheet, in terms which in my judgement are suited to the understanding of the patient.

Signature of Investigator.....Date.....

(Name in BLOCK LETTERS) ……...
Signature of Field Supervisor ……...Date……...
(if applicable)
(Name in BLOCK LETTERS) ……..

Copy for file ☐ Copy for participant ☐

Appendix I

General demographic information form

Trust Logo

Self-report Demographic Sheet (*to be completed at interview*)

Experiences of Supporting Partners with Postnatal Depression

Thank you for taking part in the interview. It would be helpful if you could provide a few bits of information about yourself and your relationship with your partner so that I can put your interview in a greater context.

The information you give is confidential and when this information is reported in write-up it will not be possible to identify you from any of the details you give. Please feel free to ask the researcher any questions relating to confidentiality and data storage of this question sheet.

Interview date…… Agreed pseudonym……. *(this information is for the researcher for identification purposes only).*

Please give your age on the interview date:

I am …… years old.

Please give details of employment status and primary occupation:

…….

Please state how long you have been in the relationship with your partner:

I have been with my partner for …… years.

I am also interested in how satisfied you are with your marriage/ relationship *(please circle the number that describes you best)***:**

1	2	3	4	5	6	7
Extremely dissatisfied			Neither satisfied nor dissatisfied			Extremely satisfied

Please state the age of your baby/child:

My baby/child is …… months/years old.

Please circle the sex of your baby:

Male Female

Please state the number of children you have:

I have ….. children.

Approximately how long has your partner been experiencing postnatal depression?

My partner has experienced postnatal depression for …… weeks/months/years *(please delete as appropriate)*

Please rate your opinion of how **severe** you partners PND is *(please circle a number)*:

1	2	3	4	5	6	7
Not very severe			Moderately severe			Extremely severe

In your opinion, was your partner experiencing depression prior to the birth of your baby? *(please circle)*

YES NO DON'T KNOW

Your ethnicity:

I would describe myself as: *(please circle or write in a box below)*

White	**Mixed**	**Asian**	**Black**	**Other Ethnic Groups**
British	White and Black Caribbean	Indian	Caribbean	Chinese
Irish	White and Black African	Pakistani	African	
	White and Asian	Bangladeshi		
Other white background (please state):	Any other mixed background (please state):	Any other Asian background (please state):	Any other Black background (please state):	Any other Ethnic groups (please state):

Thank you for taking your time to complete this information

Appendix J

Table of themes from interpretative analysis

Super-ordinate theme	Theme	Subtheme	David	Alex	Rich	Peter	Arron
Ruminating about the depression	Desperate searching to understand	Making sense of the depression	397-390	68-74;286-289		1481-1484	21-23
		Feeding and the child	1053-1057		800-805;816-817	270-273;279-281	57-61
		Tiredness	99-103;129-138	30-32		144-147;240-242;254-255;1415-1418;1421-1423	9-13;55-57;685-687
	Fear of permanence	Sense of permanence		1007-101;1238-1241	59-60;235-240		639-643;875-886
	The self as instigator	Doubt of supportive self			125-126;143-146	259-263;268-270	703-705
Psychological impact of the depression on the self	Yearning and loss of the past		499-507;528-531	1275-1277			174-176;732-741
	Isolation and withdrawal	By the self	896-900;1098-1102		717-719;1184-1187	1207-1212	
		Indirectly from others - invalidation	31-40		1093-1098	1485-1493	
		Heightened maleness	1122-1125;1200-1202;367-368		1189-1193	710-714	
	Exasperation	Struggling with feelings of exasperation	747-760;760-766;777-778	255- 258;568	459-467;751-754	0-75;77-78;78-81;1125-1130	
	Erosion of the emotional self	Deterioration of competent-self	891-896	1015-1019	935-938;350-354		
		Acknowledging limits/finite resources			928-933		
		Relief of working			257-262		780-786
		Needing time away	250-251; 323-331	447-453;630-637;617-		488-490;933-942;945-948	

				619;630-637			
Connecting with the child in the middle	Shock: the dichotomy of the imagined and living reality	Impact of birth/trauma of delivery	18-22	145-149	594-595		410-415
		Loss of control at birth	394-405;410-413;443-446.	136-141	516-524		
		Disappointment/loss real imagined		163-166;686-692	543-557;571-573		451-455
		Feeling unprepared for the shock/reality			599-602	117-119	422-428
		Entering unknown territory	413-415			327-330	93-96;405-408
	Struggling with enforced disconnections	Being the outsider		387-391		265-266 952-955 963-967	449-451
		Enforced disconnection	355-360;987-992		528-531	525-527;588-590	
		Rejection by others/trying to connect	370-374		763-767, 791-799		434-439;468-472;474-479;481-486
	Mentalising the child	Mind-mindedness and the sentient baby	984-987	1208	703-707;1144-1150	343-345;1018-1023;1242-1245	308-317
	Feeling the love and feeling adored	Feeling the love	466-482;484-488;488-490		1308-1315	1185-11875;829-833	
		Being close		167-168			553-560;533-542
		Importance of getting something back			1256-1259	527-528	446-447;455-463
		Feeling admired	1266-1271		1263-1266 1428-1432	1316-1320	
	Investing in the fathering ideal	Function of being the fun dad	863-867;980-984	552-554			631-634

		Identifying/striving to meet image of good father		1095-1101;1147-1150		307-309	915-916;929-937
Agony and collapse of the known relationship	Yearning for affection and the guilt of desire	Craving affection	1015-1020	570-578			157-161
		Guilt of desire	286-294	304-321;28-335;344-347;349-352			146-150;178-185;372-374;375-381;381-383;600-604
	Misery of the home	Battle of communication	240-244;304;543-544	75-77	410-414		280-282;618-623
		Loss-mutually supportive relationship	285-286		410-414		282-285
		Loss-enjoyable relationship	294-298		179-193		143-146;732-741
		Loss-joy	301-303;900-901	1028-1036;1052-1056		101-103	521-528
	Contemplating the end	Loss-team	545-547;1046-1053;1032-1037		197-198		846-851
		Imagining the end	807-811;835-838	1248-1253;1338-1345			365-369;369-372;859-864
	Finding a cause for the collapse		1056-1065	1413-1417		807-812	
Struggling in the midst of it	Loss of the competent wife	Making sense of severity	548-551	490-492		242-243	224-230
		Noticing deterioration	27-31; 43-51; 140-145; 841-851; 992-997	475-476	60-66		13-14;652-657
		Facing the collapse	272-277		148-152; 168-173	150-158;981-984	17;745-746
		Attending to severity		80-90;975-978	853-857	42-45;1339-1341	76-78;652-657

	Terror and concern for the baby	Risk	91-97;116-124;901-905	842-851			42-48;78-87;113-116
	The turmoil of being unprepared and uncertain	Lacking knowledge		141-144	912-921	18-19;1471-1476	93-96
		Inconsistency-depression	976-978;965-972	479-484	440-448	21-26.	52-55;99-103
		Social comparison	1067-1071			126-128	870-873
	Distress at managing distress	Managing it all	851-858		872-878;470-472		
		Conflictual emotions -baby		889-896	872-878	330-335	346-349
		Desperation Managing wife	1304-1309	58-59;1021-1022		8-15;158-159	73-76
		Inability to mentalise	979-980		877-880;1394-1395		131-132
		Reaching the limit	563-572	641-646;905-909		794-802;1098-1099;828-833	297-298
Adopting a strategy to cope	Containing the family in crisis	Protecting the child	703-708;827-832			255-259	348-349;505-512
		Fitting arguments around baby			689-698	236-239	304-306; 49- 52
		Fire-fighting	556-563			164-167;667-670	68-73
		Vessel of containment	639-642	610-613;858-868	859-862	438-441	
		Urge to ‘fix’	218-226			921-929	708-712;834-846
		Acknowledging limits	51-58	124-126	1098-1101	167-171;695-700	
		Taking charge	585-587	564-567		901-904	
	Compartmentalising relationships	Disrupted dyads	539-543		1047-1050;1144-1150	447-449	152-154;594-597
	Disconnection and concealment	Focussing on doing-emotional disconnection			658-668	161-164	790-792;798-801
		Depersonalisation-function	743-747;925-927		263-266	433-436	

		Pain/unbearable connection	729-735			420-424	804-807
		Surreal bodies	517-519	404-406	610-614		
		Depersonalisation-baby	924-925	679-683	(658-668)		
		Concealment	814-817;1149-1154	1439-1443;991-993		1250-1255;1234-1239	137-140
	Defending the self	Minimising/normalising		650-654	886-899	122-124	
		Comfort in comparison		271-275	668-671	1451	
		Justification and defence	937-946				804-807
		Revenge and resentment	956-958;999-1000		939-942	1524-1528	
	Changing the self and negating personal needs	Duty to	906-910		1224-1231		528-529
		Do more;try harder	838-841;910-914	258-263;981-985		490-492;557-559	
		Responsibility to step-up	972-976		456-460	550-552	425-428
		Forgoing need	1372-1376	313-316;875-878	1480-1484		
	Seeking support	Feeling the void	777-779;788-793;1133-1145	794-798		1151	
		Others as mentaliser	811-814;1131-1133		923-928	301-307	
		Closing the door	1126-1131		846-852	1327 – 1333	
		Double bind	720-729		899-908		
		Let down	150-160	196-197;199-201;832-833	951-960	1288-1292	
Coming through	Enhanced self-awareness and strength	Consequences of mentalising	1429-1432		1448-1452		563-568
		Uniting the team	1313-1318			350-355	568-575
		Stronger relationships	868-871;1337-	1400-1408	1331-1334;1241-	739-741;749-750	172-174

			1338		1243;1418-1421		
		Assimilating the experience	1287-1292			175-181;1413-1415	968-973
		Reflecting on the journey		673	1442;1459-1462	1375-1378	
	Living with the lingering scars	Changed partner	1357-1370;1468-1471	457-473			687-689
		Uncertain future			1037-1039	731-735	607-609
		Anxiety/defence at disclosure	1462-1468		972-983	1072-1085	
		Guilty disclosure	1020-1022	1321-1328			761-766
		Adoring the wife		303-304;561-562		27-30	755-759
		Managing difficult-emotion	1285-1287			171-175;703-704	

Appendix K

Trainees' statement of epistemological position

Trainees' statement of epistemological position

Based on the researcher's epistemological position and the research question, Grounded Theory (GT: e.g. see Glaser & Strauss, 1967) and Interpretative Phenomenological Analysis (IPA: Smith & Osborn, 2008) were considered as the most fitting potential methodologies for analysing the data. GT provided opportunity to generate theoretical understanding of how phenomena develop using a systematic approach, and was considered as useful in generating theoretical models into how fathers develop their relationships with their children. However, given that the researcher was unaware of any previous qualitative research exploring fathers' experiences of their children within the context of maternal depression in the postnatal period, the precise phenomenon to explore within GT methodology was hard to determine. The researcher viewed IPA as offering the opportunity to gain a deeper understanding of participants' individual constructions of their experiences of what it was like to live with a partner with depression in the postnatal period while getting to know their child. IPA methodology suited such an initial exploration of the topic to provide rich data which would potentially lead to further avenues of research, for example, within GT methodology.

REFERENCES

Glaser, B.G., & Strauss, A. (1967). *Discovery of grounded theory: Strategies for qualitative research.* Mill Valley, CA: Sociology Press.

Smith, J. A., & Osborn, M. (2008). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative Psychology: A Practical Guide to Methods* (2nd Edn). London: Sage.

Appendix L

Chronology of Research Process

Chronology of Research Process

May 08	Consult with staff at childbearing service about study and potential recruitment.
Sep - Nov 08	Consult staff at childbearing service regarding recruitment procedures.
Dec 08	Submit proposal for final peer review – make amendments. Develop draft interview schedule & participant forms.
Feb - April 09	Submit ethics and participant forms to IRAS and Trust R&D. Share drafts of interview schedule and participant forms with staff team – adapt accordingly.
May 09	Ethical approval received.
June 09	Recruitment drive of participants via childbearing service. Make amendments to interview schedule where necessary.
Aug - Nov 09	Frequent staff/referral meetings attended at childbearing service in a bid to boost recruitment. Exploring other avenues of potential recruitment e.g. PCTs.
(Dec 09 - Jan 10)	(Maternity leave).
Nov - Dec 10	Attempt further recruitment. Liaise with staff at potential additional site.
Jan - Feb 10	Resubmission to ethics committee. Continuing attempts at recruitment.
Mar - April 11	Ethical and R&D approval of resubmission.
	Data collection, transcription,

Feb - Sep11	coding and analysis.
	Share findings with supervisor/IPA peer supervision for triangulation of data.
(End July 11)	(Final interview)
Oct11	Complete draft thesis write-up.
	Complete final thesis and hand in.
Nov 11 +	Disseminate findings to involved services.
	Preparation of journal article and poster presentation.

Appendix M

Guidelines to authors for journal targeted for literature review