Dyadic Coping in Couples Experiencing Infertility and Perinatal Mental Health Difficulties

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Thesis Abstract

Difficulties experienced across stages of reproductive health have been associated with negative psychological outcomes for individuals and couples. Research has found the importance of dyadic coping strategies to these outcomes. Despite these findings, research and clinical practice has predominantly focused on individualised models of coping and support. This thesis portfolio aimed to provide further understanding of interdependent coping processes engaged in by couples in response to stressors related to reproductive health. It aimed to consider the influence of wider surrounding systems and contextual factors. A life stages approach is also utilised to consider the additional challenges that difficulties with reproductive health may present to psychosocial development.

A systematic review and a qualitative research study were conducted to explore the factors influencing dyadic coping in infertile couples and the experiences of dyadic coping and support for couples managing perinatal mental health difficulties.

The review found initial evidence of a range of psychological, couple and social level factors associated with coping within infertile couples. Through joint dyadic interviews it was found that couples engage in dyadic coping strategies to support adaption to stress related to interconnected experiences of parenting and perinatal mental health difficulties. This study also found the importance of engagement with wider systems of personal and professional support.

Overall, these findings suggest the importance of moving beyond individualised support to consider the needs of both members of couples coping with difficulties experienced in reproductive health. They also suggest the need for further research to understand the complexities of adapting established support structures to the couple level and the impact of biopsychosocial factors on coping within these populations. This portfolio also proposes further directions of research to support development of higher quality of evidence, and clinical best practice, within the field of reproductive health and coping.

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Chapter One

Introduction to Thesis Portfolio

Introduction to Thesis Portfolio

Introduction to Dyadic Coping

This thesis portfolio explores the role of dyadic coping across two areas of reproductive health, infertility and perinatal mental health difficulties. Dyadic coping expands on individual focused coping literature to consider coping as a systemic, interdependent process within close relationships (Falconier & Kuhn, 2019). It emphasises that when coping with external stressors (situated outside of the relationship) partners respond not only to their own stress but the stress communicated by their partner, in an attempt to enhance wellbeing and relational intimacy. Stressors situated within the relationship, for example relational conflict, are proposed to be managed using individual coping strategies. Important aspects of dyadic coping also link to how individuals and couples appraise stress and relational goals, and individual and shared coping resources (Falconier et al., 2015). Dyadic coping has been widely applied to understand adaption to stressors such as physical illness (Badr & Acitelli, 2017), mental health difficulties (Landolt et al., 2023), grief (Albuquerque et al., 2018), unemployment (Schauss et al., 2021) and minority stress (Sarno et al., 2021). With a particularly established evidence base within cancer research (Traa et al., 2015).

Since its conception, several models of dyadic coping have emerged, with evolving perspectives of how couples share and cope with stressful life events. The Congruence Model (Revenson, 1994) focuses on the extent to which partners' individual coping strategies align, proposing the importance of individual resources to mutual coping. The Communal Coping Model (Lyons et al., 1998) extends thinking beyond individuals, considering communal coping as a process within close families and communities. This model proposes that for this process to occur, at least one individual must hold a belief that communal coping is beneficial (viewing the stressor as a shared problem). It also suggests there must be communication within these relationships about stressors. Although this model was developed to conceptualise coping in systems wider than couple dyads, it has been proposed as a useful model to consider the components of coping at this level.

The Relationship-Focused Coping Model (RFCM; Coyne & Smith, 1991; O'Brien & DeLongis, 1996) considers that couples respond to stress with relationship focused strategies, aimed at preserving relationships within stressful periods. Three key concepts were developed related to relational coping: active engagement (engaging the

partner in discussions related to the stressor to support emotion focused and/or problem focused coping strategies), protective buffering (denying worries or negative experiences to buffer stress for the partner) and overprotection (underestimating coping resources of the partner and providing unnecessary practical or emotional support). A fourth dimension was later added, empathetic responding, which involves attempts to understand the thoughts and emotions of the partner to respond empathetically and validate their experiences (O'Brien & DeLongis, 1996).

The Developmental-Contextual Coping Model (DCCM; Berg & Upchurch, 2007) was a later development within this field, which similarly to other models focuses on stress appraisals at an individual or shared level. The DCCM views partners responses on a continuum from under- to over-involvement across four areas of coping behaviours: uninvolved (partners providing no support to cope with stress), supportive (partners providing emotional or problem focused coping support), collaborative (shared coping strategies to manage stress), and controlling (one partner dominating the actions of the other, telling them how to respond to stress). The DCCM also emphasises the role of developmental and sociocultural factors (e.g. culture, gender, lifespan development) in how stressful situations are appraised and the coping resources within couples (Falconier et al., 2015).

The Systematic Transactional Model (STM; Bodenmann, 1997) proposes that partners attend and respond to stress communication within dyads to maintain homeostasis within relationships. This model conceptualises positive dyadic coping strategies as supportive (one member providing support strategies to the other), delegated (one partner taking over some of the responsibilities of the other to reduce stress) and common (mutual strategies in supporting each other). They also consider negative dyadic coping strategies as hostile (showing disinterest or mocking of partners' stress), ambivalent (showing unwillingness to provide support) and superficial (insincere efforts to provide support with coping).

Each of these models provides a unique perspective on aspects of coping within close relationships. This diversity of views is also reflected in the variety of measures and methods in dyadic coping research. Many studies in this area have utilised individual coping measures completed by participant dyads, with comparison of the interdependence between scores as a measure of coping within and between partners. However, others have utilised measures specifically aimed at measuring coping dyadically, asking participants their perspectives on the coping approaches that they use

to support their partner and how their partner supports them. Some models have also been explored solely within qualitative research. The RFCM and the STM have guided more of dyadic coping research than other models (Falconier et al., 2015), with instruments developed to measure model specific constructs (Dyadic Coping Inventory; Bodenmann, 2008; Relationship Focused Coping Scale; Coyne & Smith, 1991; Fiske et al., 1991). Within this thesis portfolio the STM has been applied as a predominant framework to understanding dyadic coping in the context of infertility and perinatal mental health difficulties.

Infertility Services

The availability and accessibility of infertility treatments varies worldwide, based on complex interconnected social, cultural, economic and political factors. The number of countries with developed infertility services has increased over the past decade, with an international survey in 2021 finding that 68% of countries recognised by the United Nations offered assisted reproductive treatments (ART; Horton et al., 2022). Despite these developments, widespread inequalities still exist in accessibility of infertility treatments, particularly in low- and middle-income countries (World Health Organisation, 2024; Chiware et al., 2021). Across the world, treatment cost has been identified as a major barrier to infertility treatments access, with most countries providing limited or no publicly funded ART treatment (Horton et al., 2022). Other factors such as stigma, religious beliefs, unsupportive medical infrastructure, residing in rural areas and lower educational level have been found as additional identified barriers (World Health Organisation, 2024; Mackay et al., 2023; Nachtigall, 2006). Within many countries, available infertility treatment is also restricted to specific groups, for example with prohibited access to infertility services for LGBTQ+ couples or single women (Nachtigall, 2006). Across Europe these trends have resulted in "reproductive tourism", reframed as "reproductive exile", whereby people seeking infertility services travel to other countries to receive treatment unavailable within their residing countries (Pennings, 2005; Inhorn & Patrizio, 2009).

Within the UK, infertility treatments are available through public NHS funding but despite this offer many couples still access privately funded treatment, or a hybrid funded approach, due to provision limitations and restrictions (Hamper & Perrotta, 2023). An important issue within England is in the geographical disparity in criteria of infertility services and funding decided at individual integrated care board level (ICB; Department of Health and Social Care, 2024). For example, some ICB's offer two

rounds of funded in vitro fertilisation (IVF) treatment, whereas others offer one full cycle round (one episode of ovarian stimulation and transfer of every viable embryo or one resulting in pregnancy) or one round not to full cycle. Eligibility criteria also vary across location by age and parenting status. For example, some ICB's require couples to have no children from a current or previous relationship, whereas others only require this criterion for one partner. These difficulties however have been proposed as a key development area within the Women's Health Strategy for England and may therefore soon be addressed (Department of Health and Social Care, 2022). Within other countries in the UK, the offer is more standardised across regions (Human Fertilisation and Embryology Authority, 2024).

In addition to medical treatment there are also disparities in publicly funded psychological support, despite the found impact of infertility on psychological wellbeing (Braverman et al., 2024). The National Institute for Health and Care Excellence (NICE) guideline recommends that counselling should be offered to everyone accessing (IVF) treatment regardless of outcome (NICE, 2013). However, the scope of provision again varies with some infertility clinics offering free counselling and others charging for this service (Human Fertilisation and Embryology Authority, 2024). Within the UK counselling can also be accessed through generalised NHS funded mental health support, although not specialised to the unique psychological difficulties that may be experienced specific to infertility related stress.

Perinatal Mental Health Services within England

Within England there has been an increased focus on support within the perinatal period resulting in expansions in the provision of perinatal mental health services (NHS England, 2019). Perinatal mental health support is structured through various pathways across primary, secondary and tertiary care (NHS England & NHS Improvement, 2018). Mothers or birthing people experiencing perinatal mental health difficulties assessed as requiring a lower level of intervention, are provided through a specialist perinatal pathway within NHS talking therapies. Mothers or birthing people with moderate to severe mental health difficulties, commonly with a wider range of additional psychosocial needs, are supported by established specialist community perinatal mental health teams. These services also provide preconception advice for women or birthing people who are planning a pregnancy and have current or historical mental health difficulties. Mother and baby units also provide care for mothers or birthing people who require urgent and complex inpatient support, aimed at providing

psychological treatment to enhance wellbeing and to support them to meet the needs of infants (NHS England & NHS Improvement, 2018).

In addition to these services, in many areas of England support is also provided through Maternal Mental Health Services, developed to provide specialist support for mothers or birthing people experiencing mental health difficulties related to their maternity experience (NHS England, 2019). This includes support for those who have experienced perinatal loss, loss through care proceedings, birth trauma or tokophobia, addressing previous gaps in perinatal mental health support. However, a recently published report suggests variation in the services provided across difficulties based on locality. For example this report found that only 11 out of 41 services provide support for women or birthing people who experienced removal of their baby due to care proceedings (Maternal Mental Health Alliance, 2024).

Across the majority of perinatal services, support is primarily available for mothers or birthing people, with limited provision for father or partners, despite identified need and recommendations within NICE guidelines (Darwin et al., 2021; NICE, 2014). However, a specialist partners pathway via NHS talking therapies has more recently been established providing counselling intervention for fathers and partners (NHS England, 2019). Specialist perinatal services also commonly provide some support for partners through systemic interventions and partner focused support groups, with scope depending again on funding distributions across ICB's and individual services.

Statement of Joint Empirical Project

The empirical research study within this thesis portfolio was conducted as part of a joint project with another trainee clinical psychologist. Joint tasks for this study included collaborative study design, ethical application, participant recruitment and data collection (each researcher conducting 50% of interviews). Individual research aims and questions were developed for the two projects, with half of the questions within the topic guide aimed at addressing each of these questions. Analysis and write up was conducted separately to address separate aims.

Aims of Thesis Portfolio

This thesis portfolio aims to further understand couples coping and wellbeing in response to stressors across stages of reproductive health. It aims to consider coping

processes beyond that of the individual, as relational processes navigated at the couple level, with discussion of wider biopsychosocial influences. The stages of psychosocial development theory (Erikson, 1963; Erikson, 1968) is applied within this portfolio to enhance understanding of research findings, considering the life stage transitions of reproductive experiences. The following chapters consist of a systematic review of infertility and dyadic coping literature, a bridging chapter, an empirical research paper exploring how couples cope dyadically with perinatal mental health difficulties, an additional methodological chapter and a critical evaluation and discussion of the portfolio.

Chapter Two

Systematic Review

Prepared for Submission to the Journal of Social and Personal Relationships

(Author Guidelines in Appendix A)

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Factors Associated with Dyadic Coping in Couples Experiencing Infertility: A Systematic Review

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Statements and Declarations

Ethical Considerations and Consent to Participate

Ethical approval was not required for this review due to the data obtained from published studies in which ethical approval and informed consent were obtained by the primary investigators.

Declaration of Conflicting Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Open Research Statement

The research was pre-registered, submitted to PROSPERO (registration: CRD42024596643):

https://www.crd.york.ac.uk/prospero/display record.php?ID=CRD42024596643

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Abstract

Infertility can have a range of negative psychosocial outcomes for individuals and couples. The degree to which couples engage in dyadic coping strategies when faced with shared infertility stressors, has been associated with positive outcomes. However limited research has been conducted on understanding factors which influence infertile couples' engagement in dyadic coping. This review aimed to provide a synthesis of the evidence of psychosocial factors influencing dyadic coping in infertile couples.

A systematic review was conducted across five databases (Medline Ultimate, PsychInfo, Pubmed, Scopus and Academic Search Ultimate). Included papers investigated factors associated with dyadic coping for people accessing an infertility clinic, using a validated coping measure. Of the 125 papers screened, 12 papers were included within the final analysis. A narrative synthesis approach was taken, with findings clustered by type of factor.

Higher attachment anxiety, avoidance, and infertility stress were found to be associated with decreased engagement in positive dyadic coping strategies. Duration of infertility was associated with decreased positive dyadic coping strategies and increased negative dyadic coping strategies. There was mixed evidence for the impact of age and length of relationship. Additional emerging psychological and social factors are examined with proposals for further research. Clinical and research implications are discussed, presenting the need for coping with infertility to be considered at a dyadic level, with further study into the risk factors for poorer coping processes for these couples.

Keywords: Infertility, Assisted reproductive treatment, Coping, Couples, Review, Stress

Factors Associated with Dyadic Coping in Couples Experiencing Infertility: A Systematic Review

Infertility is a widespread public health issue which affects approximately one in six of the adult population across their lifetime (World Health Organisation, 2024). The World Health Organisation (WHO) defines infertility as "a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse" (WHO, 2024). Difficulties in becoming pregnant can have considerable impacts on the wellbeing of both members of a couple. Research shows that infertility is associated with increased levels of depression, anxiety and lower levels of quality of life in men and women (Braverman et al., 2024; Biggs et al., 2024). These links have been found to be associated with societal and self stigmatisation (Xie et al., 2023), gender identity and role conflicts (Neter et al., 2017) and disruption to meaningful life goals (Salmela-Aro et al., 2008). Infertility has also been found to affect couples relationally, impacting on quality of life, marital and sexual relationships (Luk et al., 2015).

With the potential negative impacts for infertile couples, research has endeavoured to understand the factors related to psychosocial outcomes. Bagade et al. (2023) examined the social determinants of mental health difficulties among infertile women. They found that factors such as higher education and income, employment and private health insurance were linked to better mental health outcomes. One area gaining attention, has been the importance of the ways in which couples cope with infertility related stressors. Findings in this area indicate that use of positive coping strategies are associated with decreased depression, anxiety and infertility related distress (Chernoff et al., 2021, Chamorro et al., 2024), proposing the importance of coping in infertile individuals.

The predominant focus of study across coping literature has been concerned with how individuals cope, without considering the interdependent nature of stress within close relationships. Dyadic coping as a concept moves to a systemic view of coping, conceptualising external stressors (stressful events situated outside of the relationship) as impacting on both members of a couple through relational processes (Falconier & Kuhn, 2019). Dyadic coping itself is therefore the process by which individuals within a couple communicate stress to each other and how this is recognised and responded to, in order to adapt to and manage stress as a dyad (Bodenmann, 1997).

Infertility can be considered a dyadic stressor; commonly impacting both members of a couple. Research has found that engagement in positive dyadic coping strategies is associated with decreased psychological distress (Bai et al., 2024), reduced levels of anxiety (Zurlo et al., 2020) and higher sexual wellbeing (El Amiri et al., 2023). Whilst this research has shown the importance of dyadic coping on the wellbeing of infertile couples, a smaller proportion of research has focused on understanding the factors which influence engagement in these processes. Despite this gap, interventions aimed at supporting coping within infertile couples have been developed (Ying et al., 2017, Monirian et al., 2022). Although these interventions have been founded in evidence from couples coping research, their efficacy may be limited without understanding the factors related to coping processes specific to infertility related stress. Without this understanding, we also have limited information on which couples may be in greater need of this support, which may result in inefficient distribution of resources.

Aims

This systematic review aims to provide a preliminary synthesis of the literature of the factors related to dyadic coping relevant to couples experiencing infertility. To meet this aim the following research questions will be addressed:

- How do psychosocial factors impact dyadic coping in couples experiencing infertility?
- What factors impact on engagement in positive dyadic coping in couples experiencing infertility?
- What are the risk factors for engagement in negative dyadic coping in couples experiencing infertility?

Method

The Synthesis Without Meta-analysis (SWiM) guideline was used to enhance strategy and reporting transparency within this review (Campbell et al., 2020; Appendix B). This study was prospectively registered on PROSPERO (registration: CRD42024596643).

Search Strategy

A systematic literature search was conducted on 28th May 2024 and updated on 5th November 2024 using the databases: Medline Ultimate, PsychInfo, Pubmed, Scopus and Academic Search Ultimate. The search terms included for infertility were:

"infertility", "assisted reproductive treatment", "assisted reproductive technology", "IVF", "in-vitro fertilisation", "fertility treatment", "medically assisted reproductive treatment", "gamete intrafallopian transfer", "zygote intrafallopian transfer", "tubal embryo transfer", "intracytoplasmic sperm injection", "intrauterine insemination", "ICSI", "IUI", "surrogacy", "clomiphene citrate", "metformin", "gonadotrophin", "bromocriptine" and "cabergoline". It was decided due to the range of infertility treatments to include the most common at this stage and screen out any papers not directly related to the topic area. Decisions of key terms were guided by information from the Centers for Disease Control and Prevention and the Health Promotion and the Human Fertilisation and Embryology Authority (CDC, 2024; HFEA, 2006).

The search terms included for dyadic coping were: "dyad", "dyadic coping", "couple coping", "collaborative coping", "communal coping", "partner coping", "couple adjustment", "couple adaptation" and "partner adjustment". Terms were searched at "abstract" level, with the Boolean operator "OR" used between terms in each group and "AND" linking infertility and dyadic coping terms. MESH and index terms were included, individualised to databases. Truncation was used for terms with multiple potential pluralisation (e.g. treatment*) and to adjust for international spelling variations (e.g. fertili?ation).

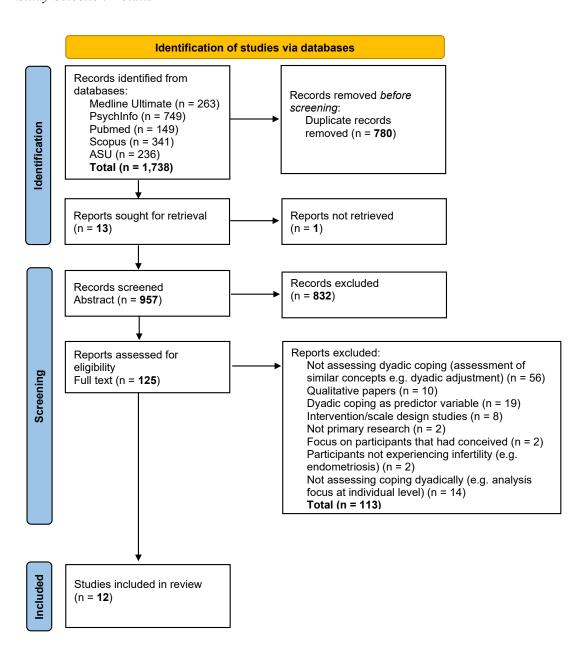
Study Selection

Studies were initially abstract screened and included if they assessed dyadic coping in people experiencing infertility, where coping was an outcome, mediator or moderator variable. Following initial screening, 125 papers were identified for full text screening. These papers were screened based on the following inclusion criteria: a) use of a validated coping measure, b) investigating coping in participants accessing an infertility clinic, c) assessing dyadic coping as an outcome, mediator or moderator variable, d) published after 1990 (point of development of dyadic coping concepts), e) quantitative and f) primary research (PRISMA 2020 flow diagram shown in Figure 1; Page et al., 2021). The decision was made to define infertility as accessing an infertility clinic due to the range of focus across studies (i.e. inclusion/exclusion criteria based on stage of infertility treatment).

The following exclusion criteria were utilised: a) assessing individual coping strategies (e.g. participants were couples, but analysis focused on coping at individual level), b) studies where participants had experienced infertility but had conceived at the

time of study, c) assessing dyadic coping solely as a predictor variable, d) intervention studies, e) qualitative and f) secondary research. Screening was conducted by the primary researcher with 15% of papers (19n) full text screened by a secondary researcher, with a found 89% concordance rate. Disagreements were discussed and a consensus reached.

Figure 1
Study Selection Details



Data Extraction and Study Quality Assessment

The Quality Assessment for Diverse Studies (QUADS; Harrison et al., 2021) was used to assess the methodological and reporting quality of studies. The QUADS was chosen due to its flexibility in quality assessment across studies with varying methodological designs, allowing for comparison using a singular tool. The QUADS demonstrates substantial inter-rater reliability (k=0.66) within health services research (Harrison et al., 2021). The data was extracted by the primary researcher using a Microsoft Excel spreadsheet (Appendix C). Quality assessment of 25% of papers (3n) was conducted by a secondary researcher, with a found 74% concordance on ratings across QUADS criterion. Discrepancies in scores were reassessed and a consensus reached.

Included papers written in a language other than English were translated using forward-only translation (Maneesriwongul & Dixon, 2004). This approach may be more susceptible to translation errors compared to other approaches (e.g. backwards testing) however this was mitigated as far as possible using two cross referenced translation tools.

Data Analysis

Across studies, there was a high level of heterogeneity due to varying: a) theoretical coping models utilised, b) measures of dyadic coping, c) roles of dyadic coping within the relationships studied (outcome, mediator, moderator) and d) approaches to defining study population parameters (e.g. stage of treatment). A narrative synthesis approach was therefore assessed as appropriate to synthesise the data. This accounted for the nuances and variations within the field, providing understanding of this developing area to support clinical and research recommendations.

Within analysis, studies were grouped by type of factors examined and their relationships to dyadic coping. These groupings were adapted from those proposed within the preregistered protocol (factors impacting positive dyadic coping, risk factors for negative dyadic coping), due to variations in methods of assessing positive and negative coping across studies. Outcomes were synthesised using textual description of the relationships between variables. Probability values and coefficients were summarised where possible to provide understanding of the evidence and range of effect.

Results

Study and Sample Characteristics

Twelve studies were included within this review with information assessed from 1,954n couples and 4,390n individuals. Out of these studies, 11 (91.6%) focused on couples, with one study (8.3%) recruiting individual participants (female members who were accessing assisted reproductive treatment as part of a couple). The decision was made to include this study as it utilised the Dyadic Coping Inventory (DCI; Bodenmann, 2008), allowing for focus on perceived dyadic coping behaviours shown towards and received from partners. Sample sizes varied greatly between studies, ranging from 57 to 595 couples (as shown in Table 1).

The average age of male and female participants was 34.4 and 32.8 yrs respectively. Information on participant education was included in 10 studies, with an average of 52% of participants having accessed higher education level (e.g. university level study). Participant income data was provided in six studies however a useful synthesis was unable to be developed due to reporting discrepancies across studies. Ethnicity was reported in three out of 12 studies and therefore not described due to providing limited information about the review sample. The average reported duration of infertility was 2-3 yrs (M=2.76 yrs). Participants experiencing primary infertility were included in four studies (33%), four studies included participants experiencing primary and secondary infertility (33%), and four studies did not report infertility aetiology metrics (33%).

There was disparity in the approach of defining a "couple". A large proportion of studies included participants that were married, cohabiting or stated as "in a relationship" (8n, 67%). A smaller proportion of studies solely included married participants (4n, 33%). Most studies (8n; 67%) included couples composed exclusively of male and female partners (67%), with four studies including same sex couples (33%).

Studies predominantly used a cross-sectional design (11n, 91.7%), with one study using a longitudinal design (8.3%). The Actor-Partner Independence Model (APIM; Kenny et al., 2006) was adopted in eight studies (67%) which accounts for the interdependence of findings within a dyad, allowing for assessment of the actor effects (association between an individual's predictor variable and outcome variable) and partner effects (association between an individual's predictor variable and their partners outcome variable). The remaining four studies (33%) used alternative methods of

dyadic assessment, for example use of the DCI as a measure and assessing correlations between couple's results across members of a dyad. Within eight studies dyadic coping was assessed as an outcome variable (67%) and four studies assessed dyadic coping as a mediator or moderator variable (33%).

Table 1Study Characteristics

Author	Year	Location	Participants	Design	Measures	Method of Assessing Dyadic Coping	Variables
Zhang et al.	2023	China	566 (233 couples)	Cross sectional	Rosenberg self-esteem scale,	Subscales of dyadic coping (Supportive, delegated, common	Self-esteem, dyadic
					Dyadic Coping Inventory	and negative), APIM	coping
Peloquin et al.	2023	Canada	282 (97 couples)	Cross sectional	Abbreviated Experiences in Close Relationships questionnaire, Dyadic Coping Inventory, Dyadic Adjustment Scale-four items	Positive dyadic coping (supportive, delegated and common subscales) and negative dyadic coping, APIM	Attachment anxiety, attachment avoidance, relationship satisfaction, dyadic coping
Rossi et al.	2023	Canada	438 (219 couples)	Longitudinal (Baseline, 6m, 12m)	Implicit Theories of Sexuality Scale–Short Form, Dyadic Coping Inventory	Positive dyadic coping (supportive, delegated and common subscales) and negative dyadic coping, APIM	Sexual growth beliefs, sexual destiny beliefs, dyadic coping
Tang et al.	2022	China	482 (individual participants)	Cross sectional	Family adaptability and cohesion evaluation scale, second edition, Dyadic Coping Inventory	Dyadic coping as an overall score (higher score indicative of more positive dyadic coping)	Family cohesion and adaptability, dyadic coping, demographics

Chaves et al.	2019	Portugal	134 (67 couples)	Cross sectional	Fertility Problem	Dyadic coping as an overall	Impact of infertility,
					Inventory, Dyadic	score	dyadic coping, dyadic
					Coping Inventory,		adjustment, anxiety and
					Portuguese version of		depression
					the Dyadic Adjustment		
					Scale—Revised,		
					Hospital Anxiety and		
					Depression Scale		
Huiquin et al.	2024	China	514 (257 couples)	Cross sectional	Fertility Problem	Four profiles of dyadic coping	Dyadic coping, infertility
					Inventory, Dyadic	(DC). Common positive group =	related stress, fertility
					Coping Inventory,	couple higher than average DC,	related quality of life
					Fertility Quality of Life	common negative group =	
					Tool	low/critical level couple DC,	
						Male positive group = female	
						high/normal range, male higher	
						DC, Male negative group =	
						female high/normal range, male	
						low DC	
Song et al.	2024	China	1,190 (595	Cross sectional	Copenhagen Multi-	Dyadic coping as an overall	Fertility related stress,
			couples)		Centre Psychosocial	score, APIM	dyadic coping, martial
					Infertility fertility		adjustment
					problem stress scales-		
					shortform, Dyadic		
					Coping Inventory,		
					Marital adjustment test		

Casu et al.	2019	Brazil	402 (201 couples)	Cross sectional	Infertility-Related Stress	Positive dyadic coping (active-	Infertility stress, social
					Scale, Infertility-specific	confronting and meaning-based)	support, coping,
					social support from	and negative dyadic coping	demographic data
					spouse and social	(active and passive avoidance),	
					network (bespoke	APIM	
					questions), Copenhagen		
					Multi-Centre		
					Psychosocial Infertility		
Boudreau et al.	2024	Canada	194 (97 couples)	Cross sectional	Experiences in Close	Subscales of seeking partner	Infertility related coping,
					Relationship, Female	support (positive dyadic	attachment anxiety,
					Sexual Function Index,	coping), denial, self-blame and	attachment avoidance,
					International Index of	self-neglect (negative dyadic	sexual functioning
					Erectile function,	coping), APIM	
					Coping with Infertility		
					Questionnaire		
Sina et al.	2010	Italy	114 (57 couples)	Cross sectional	Beck Depression	Positive coping (positive	Depressive symptoms,
					Inventory, State-Trait	approach)	anxiety symptoms,
					Anxiety Inventory,	Negative coping (conflict,	emotional frailty,
					Emotional	introspective self-blame, self-	childbearing motivation,
					Frailty Scale,	interest, avoidance).	dyadic adjustment,
					Childbearing		coping, systemic support
					Questionnaire, Dyadic		and demographic data
					Adjustment Scale,		
					Marital Coping		
					Inventory, Help		

					Received		
					and Desired Scale		
Peloquin et al.	2024	Canada	174 (87 couples)	Cross sectional	Experiences in Close	Adaptive emotion focused	Attachment anxiety,
					Relationships scale-	coping (acceptance, positive	attachment avoidance,
					short, Coping with	reinterpretation, seeking partner	coping and fertility
					Infertility Questionnaire,	support, seeking social support)	related quality of life
					Fertility quality of life	Non-adaptive emotion focused	
					tool	coping (self-blame, social	
						withdrawal, denial)	
Iordăchescu	2020	Bucharest	152 (76 couples)	Cross sectional	Brief COPE, Fertility	Positive (adaptive) coping	Coping, fertility related
					Problem Inventory	(planning, seeking social-	stress, duration of
						instrumental support, seeking	infertility (1-2yrs, 3-5yrs
						social-emotional support,	6 <yrs)< td=""></yrs)<>
						positive reinterpretation,	
						acceptance, faith, humour)	
						Negative coping strategies	
						(denial, self-distraction,	
						behavioral noninvolvement,	
						substance use, self-blame,	
						avoidance)	

Quality Assessment of Studies

Study quality ratings are presented in Table 2. The QUADS uses a four-point rating scale (0-3) across 13 criteria (Harrison et al., 2021; Appendix D). Although the QUADS provides an overall score for each study (0-39) the guidance suggests that researchers should review scores across the body of work "to discuss the quality assessment of findings narratively" (Harrison et al., 2021).

Study quality scores ranged from 15 to 35, with an average quality rating of 27. One study (Sina et al., 2010) rated significantly lower than the rest, which although suffering from methodological issues, related more to limited reporting information provided creating challenges in assessing compliance with quality criteria.

 Table 2

 Quality Assessment Ratings of Studies

Author	Date QUADS Item Scores (0-3)									Total Rating	Rating Comments					
		1	2	3	4	5	6	7	8	9	10	11	12	13		
Zhang et al.,	2023	3	3	3	2	2	2	3	3	3	2	2	0	2	30	Large sample size, uses APIM, however sampling issues and cross-sectional design
Peloquin et al.,	2023	3	3	2	2	1	3	3	2	0	2	2	1	2	26	Uses APIM, issues in sampling and inclusion criteria
Rossi et al.,	2023	2	3	3	3	1	3	3	3	3	3	3	2	3	35	Longitudinal study design. Sampling representation issues. Uses APIM, high quality analysis.
Tang et al.,	2022	2	3	2	1	1	2	3	2	2	0	2	0	1	21	Lack of reporting detail, issues in sampling, cross sectional design and using individual participants to

																measure dyadic
																concepts.
Chaves et	2019	3	3	2	2	1	3	3	1	2	0	2	0	2	24	Issues with small
al.,																sample size, cross
																sectional design,
																limited sampling
																information and
																population
																representativeness
																issues.
Huiquin et	2024	3	3	3	2	3	3	3	2	2	3	2	0	1	30	Large sample size,
al.,																cross sectional design,
																concerns related to
																exclusion criteria and
																population
																representativeness.
Song et al.,	2024	3	3	2	2	3	3	3	3	3	2	2	1	2	32	Large sample size,
																APIM. Concerns
																related to exclusion
																criteria and sampling
																issues, cross sectional
																design.
Casu et al.,	2019	3	3	3	2	2	3	3	3	3	3	2	0	3	33	Medium sample size,
																issues in sampling
																bias (participants
																included if disclosed
																infertility to social
																network), cross
																sectional design.
Boudreau	2024	3	3	3	2	2	3	3	3	1	3	2	0	2	30	Difficulties with small
et al.,																sample size and
																limitations in analysis
																method, cross
																sectional design.
Sina et al.,	2010	2	2	1	1	1	1	3	2	2	1	1	0	1	18	Very limited
																reporting, small
																sample size, cross
																sectional design.
																=
Peloquin et	2024	3	3	3	2	1	1	3	2	1	2	2	0	3	26	Reporting issues,
Peloquin et al.,	2024	3	3	3	2	1	1	3	2	1	2	2	0	3	26	Reporting issues, small sample size,

lacking power, cross sectional design.

Iordăchescu 2020 2 3 2 2 1 3 3 2 1 2 2 0 1 24 Small sample size, cross sectional design, limited sampling information.

Note. See Appendix D for further information on the QUADS criteria and explanation of scoring guidance across the 13 categories.

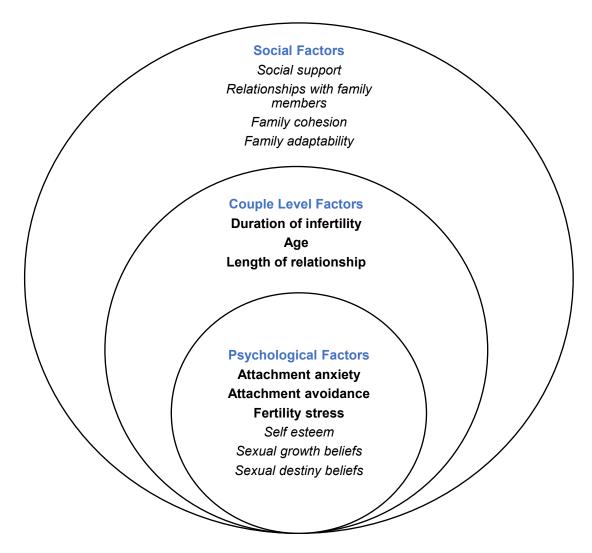
Sampling bias was an issue present across studies due to the utilisation of non-randomised convenience sampling approaches. There were also assessed issues with the representativeness of the population found within exclusion criteria across many studies. For example, five studies excluded participants who had a self-reported or diagnosed mental health disorder. Given the increased prevalence of mental health difficulties within infertile populations, this was assessed as likely to cause generalisability difficulties (Hanson et al., 2017; Biggs et al, 2024). Four studies also excluded participants who had cognitive impairments, with limited information on supportive adjustments. This raises an issue of population representativeness and wider ethical issues in non-inclusivity of research (Iacono, 2006).

Factors Relevant to Dyadic Coping

Findings were clustered into three groups: psychological, social, and couple and infertility related factors, as shown in Figure 2.

Figure 2

Visual Representation of Grouped Factors Related to Dyadic Coping



Note: Factors based on greater evidence are displayed in bold. Factors based on limited evidence, i.e. evidence provided from one study, are displayed in italic non-bold text.

Psychological Factors

Attachment Anxiety

Three studies (25%) assessed the impact of attachment difficulties on dyadic coping. Peloquin et al. (2023) found that attachment anxiety in men and women predicted lower positive dyadic coping shown towards their partner (b= -.22, p<.01) and higher use of own negative dyadic coping strategies (b= .36, p<.001). Peloquin et al. (2024) similarly found that attachment anxiety was negatively associated with adaptive emotion focused coping in men and women (b= -.115, b= -.128) and positively associated with non-adaptive emotion focused coping in men and women (b= .389, b=

.403). Boudreau et al. (2024) however found that relationships between attachment anxiety and coping did not meet significance. The coefficient findings across these studies fall within a small to medium range, suggesting that attachment anxiety predicts small to moderate changes in coping. These relationships within Peloquin et al. (2024) and Boudreau et al. (2024) should be interpreted with greater caution due to small sample sizes. These studies also utilised cross-sectional designs, which presents limitations in understanding causality within these relationships. Despite these limitations, this evidence suggests that attachment anxiety impacts negatively on engagement in positive dyadic coping for both male and female partners within infertile couples.

Attachment Avoidance

The relationship between attachment avoidance and dyadic coping was also assessed across these three studies (25%). Peloquin et al. (2023) found that attachment avoidance in men and women was negatively related to engagement in own positive dyadic coping (b= -.34, p<.001). This study also found a significant partner effect, showing that men's attachment avoidance was negatively related to their partners positive dyadic coping (b= -.21, p<.001). Peloquin et al. (2024) found that attachment avoidance in women and men was negatively associated with their own use of adaptive emotion focused coping (b= -.408, b= -.314). Boudreau et al. (2024) found that attachment avoidance in men and women was negatively associated with their own partner support coping (b= -.24, b= -.27, significant to p<.001). This study however found non-significant partner associations. These studies present small to moderate coefficients across these relationships. The trustworthiness of these relationships is again limited by sample sizes and cross-sectional designs. However, these findings do begin to suggest that greater attachment avoidance for male and female partners has a negative impact on their own use of positive dyadic coping strategies. They also suggest that there may be a relationship between attachment avoidance and partner dyadic coping strategies.

Fertility Stress

Three out of 12 studies (25%) assessed the impact of fertility related stress on dyadic coping. Song et al. (2024) found a negative relationship between both partners' fertility stress and their own dyadic coping scores (b= -.32, b= -.29, p<.05). Chaves et al. (2019) also found negative relationships between fertility stress and own dyadic

coping scores in both partners (b= -.52, b= -.32, p<.01) and in the interactions with their partners scores (b= -.44, b= -.31, p<.01). The coefficients range from small to large across these studies. Huiquin et al. (2024) found that fertility stress was significantly higher in groups with higher common negative dyadic coping scores compared to groups with high common positive dyadic coping scores (p<.05). Given the consistency of the direction of findings across these studies, the evidence suggests that higher fertility stress may be related to decreased positive dyadic coping.

Other Emerging Psychological Factors

Across studies, additional psychological factors were identified, however these findings were considered less reliable due to inclusion in single studies only. Zhang et al. (2023) found that the self-esteem of female and male partners had significant positive effects on their own dyadic coping (coefficient's ranging from b= .176 to b= .334, p≤.005) suggesting that as self-esteem of both partners increases, so does their own engagement in dyadic coping.

Rossi et al. (2023) assessed the relationships between sexual growth and destiny beliefs, and dyadic coping. Sexual growth beliefs relate to the belief that a person's sex life can change and be improved by a person's decisions in this area. Sexual destiny beliefs relate to the belief that difficulties in a person's sex life reflect a natural incompatibility between partners (Rossi et al., 2023). They found that increased sexual growth beliefs at baseline were associated with own lower negative dyadic coping scores at 6 months (b= -1.57, P<.05). They also found that individuals with increased sexual destiny beliefs across the 12 months reported higher levels of engagement in negative dyadic coping (b= .69, p=.04), additionally associated with increased negative dyadic coping by their partner (b= 1.12). These findings suggest that holding greater beliefs that one's sex life can grow and are not pre-determined may decrease the likelihood of individuals engaging in negative dyadic coping strategies.

Couple and Infertility Related Factors

Duration of Infertility

Duration of infertility was examined in seven out of the 12 studies (58%) with findings suggesting a mixed picture of the relationship with dyadic coping. Out of seven studies, four found significant relationships. Boudreau et al. (2024) found that length of infertility treatment was positively associated with use of negative coping strategies in

both partners including denial (b= .15, b= .21, p<.05), and self-blame (b= .16, b= .22, p<.01). Chaves et al. (2019) found a negative association between the number of years trying to conceive and overall dyadic coping for male partners (dyadic coping by oneself, p= .45, dyadic coping by partner, p= .14) and female partners (dyadic coping by partner, p= .30). Tang et al. (2022) also found that there were significant differences in dyadic coping across groups with varying duration of infertility (p<.01), with higher dyadic coping scores found in couples with shorter duration of infertility. Iordăchescu (2020) found that a low duration of infertility (1-2 years) was associated with use of maladaptive coping strategies whereas medium or high duration of infertility (3-5 years/more than 6 years; p<.05) was associated with use of adaptive coping mechanisms.

When considered together, these studies suggest that the longer a couple experiences infertility the less likely they are to engage in positive coping strategies and the more likely they are to engage in negative coping strategies. However, this was contradicted by the findings within Iordăchescu (2020). Collectively the former evidence is more convincing with the additional consideration that Iordăchescu (2020) was assessed as lower quality due to limited sample size and additional representation biases due to recruitment of participants with a predominantly high education attainment (77.6% bachelor's degree or above). It is also important to note that three studies also found no significant relationships between duration of infertility and dyadic coping (Sina et al., 2010; Casu et al., 2019; Huiquin et al., 2024).

Age

Out of the 12 studies, four (33%) investigated age and dyadic coping, suggesting a mixed picture of these relationships. Casu et al. (2019) found that the age of female partners was negatively associated with their own scores of active and passive avoidance coping (b=-.14, b=-.21, p<.05). They also found that age of male partner was negatively associated with active avoidance coping for female partners (b=-.14, p<.05). These findings suggest that as age increases, engagement in negative dyadic coping strategies decreases for female partners. They also found that female partner age was also negatively associated with their own meaning based coping scores (b=-.16, p<.05) and male age was significantly negatively associated with male active confronting coping strategies (b=-.14, p<.05). These findings suggest that increased age of both partners may also decrease engagement in positive coping strategies. It is important to note that the magnitudes of these relationships were small, suggesting that

age may not greatly impact on coping. Tang et al. (2024) found that female dyadic coping differed between age groups (p<.01), with ages 36-40 years showing the lowest dyadic coping scores. Huiquin et al. (2024) found that there was no significant difference in female age between groups of negative and positive dyadic coping. They did find that male age was significantly different between these groups (p=.036), with men being older in the negative dyadic coping group. Chaves et al. (2019) also found insignificant relationships between age and dyadic coping scores. These findings present an unclear picture of the relationship between age of male and female partners and dyadic coping.

Length of Relationship

Four out of the 12 studies (25%) assessed the associations between length of relationship and dyadic coping. These studies predominantly show non-significant relationships between these factors (Chaves et al., 2019; Huquin et al., 2024; Casu et al., 2019). Tang et al. (2022) however found significant differences between dyadic coping scores across groups with varying lengths of marital relationships (p<.01), with participants in the shortest marital length group having the highest mean dyadic coping score. These findings suggest that there may be no relationship between dyadic coping and length of relationship, with further research needed to assess the validity of these findings. Comparability is difficult across studies within this area due to differences in conceptualisations of length of time (e.g. length of relationship vs length of marriage).

Social Factors

Across two of the included studies there was examination of the influence of social factors on dyadic coping in infertile couples however these factors were limited to exploration in one study.

Casu et al. (2019) assessed the relationship between perceived social support and dyadic coping. They found small negative associations between female partners perceived social support from spouse and male partners active avoidance coping (b= -.10, p<.05). They found small negative associations between male partners perceived social support from spouse and their own (b= -.10, p<.05) and female partners active avoidance coping scores (b= -.30, p<.001). They also found negative associations between male partners support from spouse and their own passive avoidance coping (b= -.28, p<.001) and that of their female partners (b= -.25, p<.001). These findings suggest that greater perceived social support experienced from their spouse may be related to

decreased use of negative dyadic coping strategies. They also found predominantly insignificant associations between support from social network and negative coping strategies. This suggests that support from social network may be less related to dyadic coping than support perceived within the couple relationship.

Tang et al. (2022) found that family cohesion, family adaptability and relationship with family members were all positively related to dyadic coping (b= .38; b= .38, b= .09), with medium coefficients found between family cohesion and adaptability and dyadic coping. This study conceptualised family cohesion as "the emotional relationship among family members" and adaptability as "the ability to respond to situation changes and sudden stress" (Tang et al., 2022). These findings initially suggest the potential importance of family related variables to dyadic coping.

Discussion

The findings within this review suggest that attachment anxiety and avoidance impact negatively on dyadic coping strategies used within couples experiencing infertility. Attachment theory proposes that through the emotional responses of caregiver's, children develop internal working models relating to themselves and the world, which lay the foundations for how they relate and regulate emotions as adults (Bowlby, 1969). It is proposed that adults who have developed an insecure avoidant attachment style (in response to caregivers who were unresponsive to their emotional needs in infancy), tend to find closeness and intimacy in relationships uncomfortable, are more likely to suppress emotional experiences such as distress and anxiety and show a preference for self-reliance and independence (Hazan & Shaver, 1987; Shaver & Mikulincer, 2007). It is also proposed that adults who have developed an insecure anxious attachment (in response to inconsistent care from caregivers in infancy) are more likely to show increased preoccupation with intimacy whilst also feeling insecure and fearing rejection within relationships, and are often hypervigilant to their emotional experiences, commonly seeking external responses to support emotional regulation (Hazan & Shaver, 1987; Shaver & Mikulincer, 2007).

The finding that attachment anxiety impacts negatively on dyadic coping may relate to the tendency for individuals with higher attachment anxiety to feel overwhelmed by their own distress which may then lead to decreased engagement in positive dyadic coping strategies shown towards their partner (Fuenfhausen & Cashwell, 2013). Research has found that higher attachment anxiety is associated with

greater appraisal fluctuation (re-evaluation of relationship and instability in shared dyadic goals), suggesting that this difficulty may also impact on the degree to which stressors are viewed as shared within the couple (Lee et al., 2020). This review found that greater attachment avoidance for both male and female partners negatively impact on their own use of positive dyadic coping strategies and a tentative association with the dyadic coping strategies used by their partners. With the suggestion that avoidantly attached people tend to suppress difficult emotions to avoid activation of their attachment systems, this may lead to decreased communication of stress within the partnership, resulting in less opportunities for partners to support their partners to cope dyadically (Shaver & Mikulincer, 2007).

The Dynamic-Maturational Model (DMM) of attachment proposes that children develop strategies in response to experiences of danger (threats to their security), with strategies adapted to their contextual surroundings (Crittenden, 2006). It conceptualises that although these strategies may be adaptive within their developmental contexts, as children mature these strategies may become maladaptive, resulting in adaptation of strategies if individuals perceive that their strategies no longer fit with their current context. Building on the concepts of attachment theory, the DMM suggests that avoidantly attached individuals attend to cognitive information, omitting their own negative affect. It also suggests that as individuals mature, they may develop strategies where they focus on meeting or complying with the needs of others to the avoidance of their own needs, in order to feel safe and secure. Relating to dyadic coping, in response to stressful situations, these strategies may impact on the ability for individuals to attend to and communicate their own needs within relationships, resulting in reduced capacity for reciprocal coping strategies. Research has found that attachment avoidance is more consistently associated with dyadic coping than attachment anxiety (Fitzgerald & Shuler, 2023; Fuenfhausen & Cashwell, 2013). Overall, the findings are consistent with the literature, suggesting the importance of clinical consideration of how attachment insecurities of members of infertile couples may impact on their ability to engage in dyadic coping strategies.

This review found that higher fertility stress may be related to decreased dyadic coping. This is somewhat inconsistent with the theoretical understandings of dyadic coping as a process aimed at reducing stress which exceeds individual resources. Considering the cross-sectional nature of the studies included within this review, this raises questions of the directionality of this relationship. The evidence within this

review and within the wider literature (Ngai & Loke, 2022), suggests the likelihood that fertility stress is related to dyadic coping, but with further longitudinal and randomised controlled studies needed to understand whether higher fertility related stress should be considered a risk factor for lowered dyadic coping.

Alongside psychological aspects, this review also found relevant couple and infertility related factors. Duration of infertility was found to be associated with dyadic coping. This aligns with research finding that increased duration of infertility is associated with greater levels of anxiety, depression and psychological distress in women (Kazmi et al., 2016; Ramezanzadeh et al., 2004). Moura-Ramos et al. (2016) also found that couples with longer duration of infertility reported greater importance of parenthood, which mediated reduced emotional adjustment. This suggests that when infertility is experienced for a prolonged period, engagement in positive coping may be impacted which may lead to worse psychological outcomes. The evidence for the impact of age and length of relationship on dyadic coping was unclear, with mixed directions of findings for age and a single found significant association for relationship length. Staff et al. (2017) conducted a narrative synthesis, finding relationship length as an antecedent to dyadic coping. This study suggests that a longer relationship length may foster greater dyadic appraisals and engagement in dyadic coping strategies. However, the evidence for these associations is limited within the wider literature, highlighting the need for further research to provide insight into the importance of these factors to dyadic coping processes within this population.

Self-esteem, sexual growth and destiny beliefs, were also highlighted within this review as emerging factors that may be related to dyadic coping in infertile couples. However, these relationships have only been examined within individual studies, leading to tentative appraisal of these relationships. The factors of social support, relationships with family members, family cohesion and adaptability were also proposed as potentially relevant factors, with similar limitations. Studies within this area have found that greater perceived social support from family reduces infertility related stress, anxiety and depression, though engagement in coping strategies (Martins et al., 2011; Khalid & Dawood, 2020). Studies have also found that infertile couples perceive themselves as socially excluded and commonly hide their infertility status from their communities due to fear of social stigma (Ergin et al., 2018). Given the complexities related to how infertile couples engage with their social systems and the potential

benefits from receiving social support, expanding research to investigate the role of social aspects of coping seems like a worthy area of focus.

Strengths and Limitations

Synthesis of findings was supported by the structure of this review, grouping evidence by type of factor, supporting insight into the varying individual, couple and systemic factors which may need to be considered in intervention development, and in identification of couples in greater need of support. A main limitation within this review was the challenges in comparison between studies and drawing conclusions within findings due to the heterogeneity in study designs and analysis methods. Causality of relationships was also a prevalent issue due to most studies using a cross-sectional design.

There are also considerations related to the validity of these findings due to issues highlighted in sample representativeness. Many of the studies excluded couples who had experiences of mental health difficulties, cognitive difficulties and in some studies, experiences of other diseases. Excluding these commonly experienced difficulties causes likely bias, increasing the likelihood that findings are not fully representative of these relationships within the population. Within this review, an average of 52% of participants were also found to have accessed higher education to university level. Education within the literature has been found to be an important protective factor for emotional adjustment in infertile women (García-Quintáns et al., 2023). This presents potential difficulties in generalising these findings to those who have accessed lower educational levels.

It is also important to consider international disparities in the accessibility and affordability of infertility treatments. Research has found that financial factors such as income and insurance coverage influence the utilisation of infertility treatments (Farley & Webb, 2007). This raises a limitation of these studies and a wider issue across infertility research, in that results may be biased through recruitment of couples who have financial resources to access infertility clinics and may not be representative of how couple cope who require treatment but may be unable to seek it.

Implications for Research and Clinical Practice

First, these findings suggest the importance of assessing and formulating attachment insecurities of individuals within infertile couples to consider how these

developed ways of coping with stress and relating to others may impact on engagement in shared coping strategies.

Second, it was found that couples who have experienced infertility for a longer period may utilise decreased positive dyadic coping strategies. Based on these findings it seems that duration of infertility is an important consideration for practitioners working with infertile couples, as part of assessing which couples may be in greater need of coping related support. The evidence for other couple-based and emerging factors was limited within this review, presenting potential areas for further study, to assess their importance to dyadic coping in this population.

Third, given the difficulties related to representativeness of samples, it would be important for further research to attempt to recruit greater diversity of participants to establish greater validity within the evidence base. This could particularly focus on recruitment of participants who have lower educational attainment. Studies should also aim to report on participant demographics, such as income and ethnicity, in greater detail to provide further transparency of sample representativeness. A particular issue found within this review was studies adopting restrictive exclusion criteria. Future studies should also aim to consider sampling criteria, with further reporting detail on justifications for adopted exclusions.

Finally, with the found heterogeneity in definitions and measurement of dyadic coping, further research would be beneficial to establish more consistent approaches. One approach would be to more widely utilise measures specifically designed to measure dyadic coping (e.g. DCI) in research with infertile couples to support the development of a cohesive evidence base. The limitations of the studies within this review also indicate a need for longitudinal and randomised controlled studies to establish interactions between factors with dyadic coping.

Conclusion

Several factors were found within this review to be related to dyadic coping in people experiencing infertility. Psychological aspects such as attachment insecurities and infertility related stress and couple characteristics such as duration of infertility were found to be related to dyadic coping and important for clinical consideration to support infertile couples. Several recommendations for further research are discussed, including proposal of further assessment of relationships with factors found in single studies, research adopting longitudinal and randomised designs to establish greater

confidence in findings and a greater emphasis on inclusion of more diverse and representative samples.

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Chapter Three

Bridging Chapter

Bridging Chapter

The systematic review in chapter two presents the individual, couple and social level factors relevant to dyadic coping in couples experiencing infertility. Within this review, infertility is presented as a dyadic stressor which can be communicated and managed within the couple through shared coping processes. This review was considered important due to the known positive impact of dyadic coping on psychosocial couple outcomes (Bai et al., 2024; Zurlo et al., 2020), but with a limited evidence base on the factors that influence engagement in these processes. This was also considered relevant to the development of couple coping focused interventions for people experiencing infertility. The clinical implications of this review were also appraised, potentially supporting clinical understanding of the characteristics which might influence recognition of couples who may be in greater need of this support.

Previous research has established evidence of the psychological impact of infertility, finding greater prevalence of mental health difficulties within this population (Braverman et al., 2024; Kiani et al., 2021; Kiani et al., 2023). However, what is more unclear is the additional longitudinal impact of these difficulties, beyond experiences of infertility, to the implications for those who then successfully conceive. Some research suggests that previous experiences of mental health conditions put people at greater risk of developing mental health difficulties within the perinatal period (O'Hara & Wisner, 2014), with history of mental health difficulties as a key aspect of antenatal screening tools (Austin et al., 2013). However, the evidence investigating these relationships are stronger for severe and enduring conditions such as bi-polar disorder, with less clear relationships on the impact of conditions such as perinatal anxiety or depression (Rusner et al., 2016; Howard & Khalifeh, 2020). With evidence suggesting links between infertility and mental health conditions and the latter associated with increased risks of development of perinatal mental health difficulties, it might be hypothesised that conception through assisted reproductive treatment (ART) may be related to perinatal mental health difficulties.

However, literature investigating these links have found mixed evidence on the impact of difficulties with infertility and perinatal mental health. Some studies have suggested no associations between infertility treatment status and prevalence of postpartum depression (Lynch & Prasad, 2014), or levels of stress and anxiety (Raguz et al., 2014). Other findings within larger cohort studies have suggested marginally higher risk of postpartum mental illness in populations that had accessed ART in comparison

with the general population (Dayan et al., 2022). It is however important to note that this research, consistent with wider limitations within reproductive literature, predominantly focuses on postnatal depression and anxiety difficulties, with limited exploration of these links with other conditions. This also focuses almost exclusively on maternal mental health difficulties as opposed to paternal and couple based psychological outcomes.

Despite the unclear relationships between infertility and perinatal mental health, what does link these two areas of study is that these experiences can be conceptualised as dyadic stressors across stages of reproductive health which may lead to engagement in dyadic coping processes. These two areas are both also under researched within coping literature, with particularly limited quantitative evidence bases, providing basis for a review of emerging evidence and qualitative exploration to further understand couple's experiences of dyadic coping.

Chapter four moves away from infertility difficulties to consider stress and coping for couples within a differential area of reproductive health, perinatal mental health difficulties. This chapter presents a qualitative exploration of how couples cope dyadically with experiences of moderate to severe maternal perinatal mental health difficulties. This will contribute to development of understanding of dyadic coping within this wider research area, whilst also adding to the understanding of how these processes are experienced within perinatal mental health, supporting research and clinical understanding.

Chapter Four

Empirical paper

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Dyadic Coping in Couples Experiencing Perinatal Mental Health Difficulties Within the Community: A Qualitative Study

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participant information and generated themes from analysis. This additionally

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perinatal mental health teams who supported in recruitment for this study.

Statements and Declarations

Ethical Considerations

The study was approved by the Health Research Authority NRES Committee East of England (REC approval reference 24/EE/0063, IRAS 333583) on 11/04/2024.

Consent to Participate

All participants provided written informed consent.

Consent for Publication

All participants were made aware prior to interviews that findings would be published in academic journals and provided written consent for anonymised quotes to be used within publications.

Declaration of Conflicting Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Open Research Statement

This research has electronically been made available in the public domain on the UEA Digital Repository: https://ueaeprints.uea.ac.uk/, and the British Library's EThOS archive: https://ethos.bl.uk/Home.do, as part of Doctoral thesis submission.

Abstract

Existing perinatal mental health research has primarily focused on understanding the experiences of mothers and birthing people, despite growing evidence of paternal difficulties. Research also suggests the importance of the ways that couples cope with these difficulties on psychosocial outcomes. This study aimed to understand dyadic coping processes in response to experiences of moderate to severe perinatal mental health difficulties. A further aim was to understand how couples engage with wider systems of support and the resulting impact on coping. Semi-structured joint interviews were conducted with eight couples, recruited through specialist community perinatal mental health teams.

Thematic analysis was used to generate themes across levels of support and coping. Two themes were developed related to dyadic coping experiences: Common dyadic coping and Partner approaches to dyadic coping, with underlying subthemes of Shared compassion, Joint coping with parenting tasks, Supportive and delegated dyadic coping and Protective buffering. Three themes were found to relate to couples' experiences of support systems: Disparities in care experiences, with two underlying subthemes, Person-centred perinatal mental health care and Adverse maternity care experiences, Where individualised models of care fall short with two subthemes, Insufficient couple focused support and Support as a supporter, and an additional theme of Engaging with family support. These themes advocate for the importance of dyadic coping processes for couples experiencing perinatal mental health difficulties. They also suggest the limitations of individualised support focused on the mother or birthing person and the importance of shifting support structures to consider couple level interventions and partner involvement in care.

Keywords: Perinatal, Mental health, Coping, Couples, Stress, Community, Support

Dyadic Coping in Couples Experiencing Perinatal Mental Health Difficulties Within the Community: A Qualitative Study

It has been well established that within the perinatal period (during pregnancy and up to 24 months postnatally), women and birthing people are at increased vulnerability to mental health difficulties, with findings of prevalence rates between 10-20% (Howard & Khalifeh, 2020). Research has also found that maternal mental health difficulties are associated with higher rates of mortality (Oates, 2003) and greater developmental difficulties in infants (Stein et al., 2014). Many of the studies within this area have focused on populations accessing primary health care services or inpatient settings (Howard & Khalifeh, 2020). This has left gaps in our understanding of the experiences of women and birthing people accessing secondary community mental health support.

Research within perinatal literature has also traditionally focused on the experiences of the mother or birthing person. However, more recently this has begun to change, with increasing focus on the importance of partners to the wellbeing of mothers and infants, and recognition of paternal perinatal mental health difficulties (Antoniou et al., 2021). Within this wider focus, studies have also begun to conceptualise experiences within a shared systemic frame (Alves et al., 2020). Findings from Lever Taylor et al. (2018) however suggest that partners continue to feel neglected by services, emphasising the need for further research to develop understanding of the complexities of expanding service provision to the family context.

The shift in focus from individual to wider experiences highlights the importance of considering how couples cope dyadically with perinatal mental health difficulties. Dyadic coping models have developed to understand how stress is communicated and managed through relational processes (Falconier & Kuhn, 2019). The Systemic-Transactional Model (STM) proposes that stress experienced by one partner is communicated and responded to by the other partner to maintain a state of homeostasis within the couple (Bodenmann, 1997). The STM proposes positive forms of dyadic coping which include supportive dyadic coping (one partner engaging in problem or emotion focused strategies directed towards the other), delegated dyadic coping (one partner taking over some of the responsibilities of the other) and common dyadic coping (problem focused or emotion focused strategies which are engaged in by both members in a symmetrical way). It also proposes negative forms of dyadic coping such as hostile (distancing, disinterest or minimising the stressor), ambivalent

(communicating that support is offered unwillingly) or superficial strategies (surface level attempts to provide support). The STM has been used to examine how couples cope with physical illnesses such as cancer (Badr et al., 2010) and cardiovascular disease (Kar et al., 2023) and psychological difficulties including depression and trauma related difficulties (Landolt et al., 2023).

Existing research utilising dyadic coping models to study how couples cope with perinatal mental health difficulties, has found that decreased engagement in dyadic coping strategies within the perinatal period are associated with lower quality of life and increased depressive symptoms (Alves et al., 2020; Meier et al., 2020). Research also suggests the importance of family and wider social support to coping within the perinatal period (Chen et al., 2022, Sufredini et al., 2022). Much of this evidence has utilised qualitative designs, predominantly interviewing members of dyads separately (Ruffell et al., 2019). This methodology focuses on understanding shared experiences through an individualised frame, missing the opportunity for dyadic interactions.

This study will therefore aim to address these gaps by utilising dyadic methodology to firstly gain insight into the experiences of couples coping with moderate to severe perinatal mental health difficulties within the community, through a joint lens. Secondly, it will also aim to also understand how experiences of dyadic coping for these couples are influenced by interactions with surrounding personal and healthcare support systems.

Research questions

The following research questions will be addressed within this study:

- How do couples and co-parents cope dyadically with moderate to severe perinatal mental health difficulties?
- What is the impact of how couples and co-parents interact with support from their surrounding systems on how they cope dyadically with moderate to severe perinatal mental health difficulties?

Method

Design

Ethical approval for this study was obtained from the NHS Research Ethics Committee (ID number: 333583; Appendix E) and local NHS trust sites (Appendices F to G). Data were handled in accordance with General Data Protection Regulation (GDPR, 2019). Semi structured joint interviews (members of couples interviewed together) were utilised to explore couples and co-parents in-depth experiences of dyadic coping within the context of moderate to severe perinatal mental health difficulties. Eisikovits and Koren (2010) propose that dyadic designs generate greater depth of understanding due to interactions between participants prompting ideas and co-constructing meanings. However, within this approach individuals may also feel less able to share sensitive aspects of their experiences. To address this additional challenge, experts by experience supported in development of the interview schedule to enhance the acceptability of interview questions within this study design.

Participants

Participants were couples involved in a personal relationship, or engaged in shared co-parenting activities, where the mother or birthing person accessed support from a specialist community perinatal mental health team, within the post-natal period (from birth up to one year). Antenatal mothers or birthing people were excluded due to a focus on the transition into parenthood. Community perinatal mental health teams provide multidisciplinary support for mothers or birthing people experiencing moderate to severe mental health difficulties based on a recovery model of care. This population tend to have more complex psychosocial needs, which commonly involves coordination of care with multiple agencies (NHS England & NHS Improvement, 2018). Participants were recruited through community perinatal mental health teams across Cambridgeshire, Peterborough and Norfolk.

Mothers or birthing people included within this study accessed support for any perinatal mental health difficulty and were over the age of 18, with a good level of spoken English. It was considered that experiences may differ across types of difficulty. However, incorporating this range of experience was considered helpful to broaden understanding of coping, with evidence of comorbidities across clinical diagnoses also suggesting the importance of understanding perinatal experiences transdiagnostically (Falah-Hassani et al., 2017).

Procedure

Couples and co-parents eligible for inclusion were identified by clinicians within involved mental health teams. Clinicians discussed the study within routine appointments and gained consent to share contact details. Researchers contacted

participants via phone or email with further study information. Written consent and demographic data were also collected. Both members of the couple and co-parenting dyads were required to consent to participate.

Interviews were conducted face to face or online. Couples or co-parents were interviewed together to facilitate interactions between members of dyads to gain further depth of understanding of shared experiences of coping beyond the scope of the individual interview methods. It was permitted for infants to be present during interviews to enhance accessibility for participants. Interviews were conducted for approximately 90 minutes and were audio and video recorded using Microsoft Teams. Transcription was conducted by the interviewing researcher using Microsoft Word. Participants received £10 shopping vouchers each as a thank you for participation. A debrief was also held with participants post interview.

Data Analysis

Thematic analysis was used to allow the flexibility to explore common patterns of experience across couples and co-parents, alongside exploration of their in depth lived experiences (Sundler et al., 2019). This allowed for new meanings to be generated from the data to add to the emerging research base. Analysis followed the six stages outlined by Braun and Clarke (2006) to ensure quality of methodology and analysis transparency: 1) Familiarisation with the data, 2) Generation of initial codes, 3) Searching for themes, 4) Reviewing themes, 5) Defining and naming themes and 6) Writing the report. This approach was adapted to incorporate the dyadic methodology across these stages, for example considering examination of agreements or disagreements between participants and use of dyadic quotations. An inductive-deductive approach was used within analysis to allow for themes to be generated from the data whilst also informed by established dyadic coping theory (STM). To increase trustworthiness of interpretations within analysis, two experts by experience reviewed the generated themes.

Pseudonyms are used throughout presented quotations to protect anonymity of participants and their family members.

Results

Sample Characteristics

Although this study aimed to be inclusive to co-parenting dyads, all the eight dyads (16n) that participated were couples. Most participants identified as heterosexual

(11n, 69%), two identified as gay women/lesbians (13%) and three identified as bisexual (19%). Overall, seven of the couples were composed of opposite sex partners with one same sex couple included. Participants were all within the age ranges of 25 to 34 yrs (11n, 69%) and 35 to 44 yrs (5n, 31%). Most participants identified as White British (13n, 81%) with two participants identifying as a differing White Ethnic category (13%). Ethnicity data was not recorded for one participant. For half of participants this was their first child (8n, 50%).

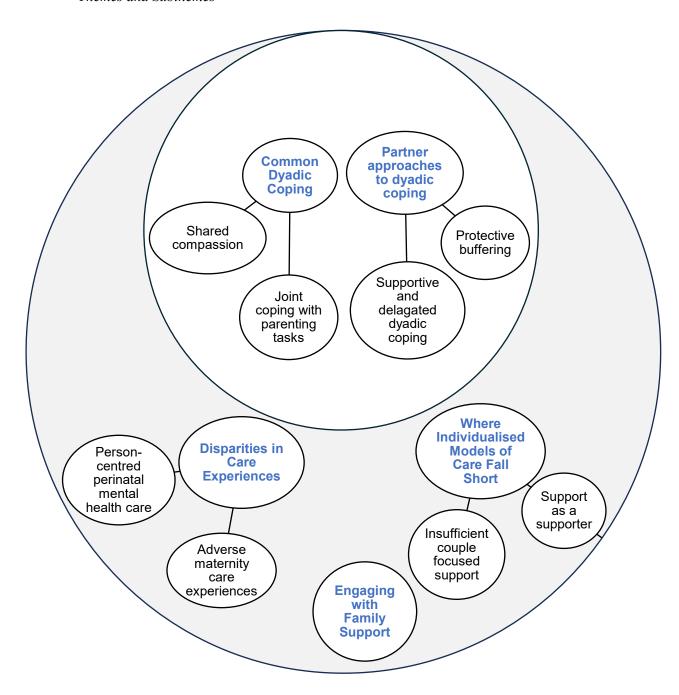
Overview of Themes

Two themes were generated which support the understanding of how couples cope dyadically with perinatal mental health difficulties. The first theme was "Common dyadic coping" explained by two subthemes, "Shared compassion" and "Joint coping with parenting tasks". The second theme was "Partner approaches to dyadic coping", explained by two subthemes, "Supportive and delegated dyadic coping" and "Protective buffering".

Three themes related to couples' experiences of support from surrounding systems and the impact on coping mechanisms. The first theme was "Disparities in care experiences" with two subthemes, "Person-centred perinatal mental health care" and "Adverse maternity care experiences". The second theme was "Where individualised models of care fall short" with two subthemes, "Insufficient couple focused support" and "Support as a supporter". The third theme was defined as "Engaging with family support".

Figure 3 shows a visual representation of the themes and subthemes at the couple level, influenced by themes and subthemes of experiences situated within wider systems.

Figure 3Themes and Subthemes



Theme One: Common Dyadic Coping

Common dyadic coping within the STM relates to couples engaging in shared coping strategies in a balanced way (Bodenmann, 1997). Across all interviews, couples described the life changing transitions and difficulties in meeting the demands of becoming parents. A key aspect of this experience was the shift from individual to shared goals of coping, highlighting that for these couples their foremost focus was on

supporting their children. This suggests the importance of attending to how couples cope with parenting more generally as part of the overall picture of how couples cope with perinatal mental health difficulties.

Shared Compassion

The theme of shared compassion was present across most interviews. Couples commonly talked about an agreed perspective that to cope with the demands of the perinatal period both members are unable to experience emotional overwhelm at the same time. This acknowledgement led to shared compassion, where individuals monitor and respond to the emotional state and needs of their partner when appraised that they have reached a point of being unable to cope:

Freya: If we start to get overwhelmed (...) rather than being like, don't do that you're going to mess up our kids, like we'll sort of just tap the other one and be like, OK, I'm going to step in now and we have kind of an agreement that we will just, we'll back off then (...) I've had like kind of mental health issues in the past too, like when that starts to show up, he knows what to look for.

Within interviews, shared compassion was described with the goal of supporting the wellbeing of the other person and to manage emotional responses towards children. Here Freya describes how attentiveness to emotional states is impacted by experiences of mental health difficulties. Freya also alluded to a sense of worry of the impact of emotional regulation difficulties on children, which may be a particular experience for mothers or birthing people experiencing perinatal mental health difficulties. Some couples also talked about their experiences of childhood and the impact of this on their coping needs and approaches to parenting:

Katie: I grew up in a household that didn't really show too much love (...) like sometimes going from what I grew up with to now, I do have to kind of, not force, but remember to say like I love you and remember all those little things 'cause I'm not used to that.

This describes the additional challenge for Katie in parenting due to her difficult childhood experiences and developed ways of relating to others and coping with emotions. An important aspect of engagement in shared compassion for many was the identification and adaptation to individual coping needs within the couple, enhancing overall dyadic coping.

Joint Coping with Parenting Tasks

The subtheme of joint coping with parenting tasks was described frequently across the data, interpreted through the lens of common dyadic coping. Couples talked about dyadically managing practical tasks by distributing based on individual strengths and attuned to emotional capacities. A theme that arose was the process of learning parenting through doing. Couples talked about this process being impacted by a sense of avoidance within society of discussing the difficult realities of becoming a parent. An aspect of this experience for many couples was the process of engaging in joint problem solving of parenting decisions:

Freya: We kind of tried and tested um, sort of figured out what was working, what wasn't working (...) it just immediately freed us, like we had this kind of set idea as to what we should be as parents and that isn't at all how we parent now.

Adam: And just admitting that you can't do it as well.

Freya: Yeah, that's, I think we both still struggle with that, like it's a kind of constant drive being, needing to prove that you can do it.

This describes the need for couples to find a level of acceptance in managing unrealistic expectations related to parenting tasks and how couples can support each other to navigate related difficult feelings. Within this experience, some couples alluded to the impact of wider pressures on parenting (e.g. family expectations, conflicting parenting information within media).

Theme Two: Partner approaches to dyadic coping

For many couples, experiences of perinatal mental health difficulties meant that the mother or birthing person needed more support at points to cope with these difficulties, alongside parenting demands. This was navigated within the couple through the partner providing greater levels of supportive and delegated coping.

Supportive and Delegated Dyadic Coping

Some couples described the support that partners provided in helping with emotional self-reflection and validation of difficult feelings. Many couples also described how important partners were to providing support in times where they were struggling more acutely with perinatal mental health difficulties:

Maria: It might feel alone, but I, I learned to recognise if I'm really spiralling and I can't calm down on my own in the middle of the night, I know that I can wake him up (...) yeah, I can always like, count on him.

Many couples also described partners taking on greater parenting tasks to support the mother or birthing person to engage in individual coping strategies, aligning with the concept of delegated dyadic coping. For Laura, this allowed her to have time alone to support her mental and physical needs:

Ben: It's really important that you, you get a chance to have those extra hours of sleep (...) I think it can become almost self-fulfilling. You have a bad week because you're too tired to kind of take him out then obviously he's grumpy because he hasn't had much in the way of stimulation (...) but actually I'm gonna take you out (referring to baby) for, you know, five hours in the morning or whatever, actually, I think makes a pretty significant difference overall.

However, some couples also alluded to the difficult feelings that this dynamic can create for the mother or birthing person, and the challenge of finding the balance within couples in engagement in supportive and delegated coping strategies.

Protective Buffering

A common theme found within the data was the partners' experiences of perinatal mental health difficulties and birth trauma. However, alongside this was the experience of partners finding it difficult to communicate their feelings:

Maria: You ask him, how are you? There's just like the kind of good, you know, which is something you expect to hear from a stranger on the street.

Luke: And again, as I just told you like there are different reasons for that, sometimes I feel like I don't want to be a burden.

This emphasises a found common experience of partners avoiding communication of their difficulties due to beliefs that this would be burdensome for their partner. Within interviews there was a sense that due to the mother or birthing person experiencing mental health difficulties, partners felt that sharing their own feelings would result in further difficulties for the couple. Similarly, some partners felt that they needed to be "strong" as a strategy to provide support:

Jade: Where I was finding it quite tough, but didn't want to admit.

Lucy: I think I probably felt if you want to try and be strong for me.

Jade: Yeah.

Lucy: And I was like, oh, yeah, you can be struggling to.

Jade: I think I just sort of thought, well, well only one of us can be struggling.

This links to the previously discussed perspective that only one member of the couple can struggle emotionally at once. However, this suggests that although at times this may be engaged in communally, at other points this dynamic can shift to the partner hiding their difficulties in an attempt to support overall coping. Within several interviews the impact of male gendered norms was linked to this avoidance and created barriers for partners communicating stress within the couple:

Ben: Maybe that's a male thing. I think there's certainly an element of that, you know the need to be perceived as being strong (...) I think I'm aware of that in myself, you know, I think self-awareness is half the battle, but I think the issue is, it's quite kind of societally inherent thing.

In several interviews mothers or birthing people expressed their feelings of guilt related to an awareness of this dynamic and the unspoken difficult experiences of their partners.

Theme Three: Disparities in Care Experiences

A theme that was evident across the data was the disparities that couples experienced in the support they received in differing areas of their care and the impact that this had on coping.

Person-centred Perinatal Mental Health Care

Couples commonly described support received from specialist perinatal mental health teams as fast and holistic, tailored to the needs of the mother or birthing person. For some couples this support helped the mother or birthing person to reflect on emotional states. Some couples also described how therapeutic support received from perinatal services aided the mother or birthing person to take a more compassionate approach to relating to themselves, supporting them to regulate their emotional responses as a parent:

Ethan: Learning to be, you know, kind to yourself (...) and then compassion feeds into parenting and it seems to be this massive theme of well you know

maybe he didn't break your favourite thing because he wants to break it. Maybe he broke it because he's a baby.

An important element of this experience for some was having professional support outside of the couple due to the emotional distance. Couples also described how this support enhanced coping as a parent and as a couple to maintain the wellbeing of the relationship.

However, many couples also held the perspective that the level of mental health support that they received should be a standard level of care for all parents:

Jade: I just think it's quite a comprehensive package. I can't fault it. I just think it's been amazing. I think everyone should get it as standard.

Lucy: There's so many people that probably are struggling, but maybe not bad enough, but actually they would benefit from having some extra support (...) but you have to, you have to be like in a bad way to be able to get the support.

These discussions were held within the context of support for parents focused on a physical health model of care, with limited generalised perinatal mental health support.

Adverse Maternity Care Experiences

Couples frequently discussed their experiences of receiving maternity health care support. Although not all descriptions of these experiences were negative, there were common themes of unhelpful interactions with staff which caused greater difficulties in how couples coped within this period. Couples described experiences of not feeling listened to and the insensitivity of approaches of some maternity staff:

Ruby: She was awful. Not a very good bedside manner.

Tom: The bedside manner was shocking and I did mention it to one of the midwives. And she says "unfortunately, doctors do go into doctor world where they'll start reciting". (...) it was all "well, you know, destiny and the babies may not last, last days and you know a lot of them die in childbirth." (...) we were like, "I'm sorry. What?"

This interaction caused a greater level of prenatal anxiety for this couple. Others also expressed their experiences of a lack of trauma informed approach from medical staff:

Laura: I was already quite upset and um quite anxious, and the obstetrician just said, oh why are you so anxious? Why are you so upset? (...) and when you gone

to all of that effort with the hospital to make sure that everybody is aware how stressful this situation is going to be for you (...) it was like a slap in the face.

Couples communicated the impact of these interactions on their mental health, which highlights the iatrogenic harm which can occur in these early interactions within the perinatal period. An important factor to this was the acknowledgement that interactions with maternity staff provided opportunities for access to specialist perinatal mental health support. Some couples described how positive relationships with professionals was a facilitator for communication and receiving support. However other couples described barriers in accessing support due to the inaccessible way that perinatal mental health support was communicated. Some couples also talked about the difficulties they experienced in recognising perinatal mental health difficulties, highlighting the importance of these interactions in the identification of mental health needs.

Theme Four: Where individualised models of care fall short

A common theme that was generated was the sense of the limitations of models of support focused solely on mothers or birthing people, with minimal support available for partners and at a couple level.

Insufficient Couple Focused Support

Some couples described the lack of integrated couple-level support and the perspective of the potential benefits for this on couple coping processes:

Freya: It would make so much more sense if there was, like, more of a joint working (...) we can get individual help, that's great but like there's no then connection with us anymore (...) and you get so focused on just trying to get through and fix yourselves that there's no kind of relationship work and loads of couples don't work anymore because of that, like they break.

This shows the perspective of the limitations of individual therapeutic support in its ability to support dyadic coping processes between couples and facilitating connections within the relationship. Freya went on to describe their view on the benefits of couple therapeutic support for providing a psychologically safe space for facilitation of stress communication processes. One couple also described the beneficial impact of their partner being involved in therapy sessions:

Ethan: I think that could possibly be offered a lot more because that taught me a lot about (mental health difficulty). And how sometimes I was maybe taking on

some of the responsibility (...) so she was avoiding that trigger and it wasn't making her get any better, feeling any better. So I was just sort of shielding and yeah. So I think doing that together really helped.

Athena: That's obviously amazing. We need to remember we're not, not all partners get to do that.

This highlights the facilitation of the partner gaining a greater understanding of perinatal mental health difficulties and how through supportive processes they may unintentionally maintain some these difficulties. These themes also suggest that therapeutic support available at a couple level may support positive coping processes for couples beyond individual therapeutic sessions.

Support as a Supporter

A concept that was frequently discussed was the lack of involvement of partners in care. This interaction describes the felt lack of awareness that partners can also experience perinatal mental health difficulties and the missed opportunities for partners to receive support:

Louis: Yeah, I've not had any kind of, contact or, exposure to any of the mental health team (...) I don't know if it's just because they've not asked you "do you have a partner and can we speak to them?" Or it's all just been a focus on you? But nobody's ever asked me how I'm getting on or I guess they're just waiting for me to reach out when things aren't right (...) It's a shame because I felt there was an opportunity there.

Ava: There needs to be more conversations had about the effects of parenthood for both parents because I think people forget that both parents can have postnatal depression.

This proposes the partner's lack of involvement and contact with perinatal mental health teams as a barrier to partner's receiving support for their own difficulties. This also speaks to a wider societal difficulty of a lack of awareness of partner perinatal mental health difficulties, which likely influences the ability for partners to recognise these difficulties within themselves. Other couples also talked about how the focus of the support that partners did receive differed from their expectations, focusing on support for partners as a supporter rather than on how partners cope as individuals.

Theme Five: Engaging with Family Support

A common factor of support discussed by couples was the benefits and complexities in engaging with familial support. Many couples talked about the practical support that families provided, which allowed them to have more time to engage in activities as a couple outside of being a parenting team:

Jade: And I think there was also maybe, a bit of guilt there. Like, are we bad mums for wanting people to feed him a bottle or hold him or do a nappy or getting to sleep. Like does that make us not bonded to him? Because we're happy to accept the help, but we kept having to remind each other, we don't want to do it all (...) like we're lucky to have family who live really close. So why wouldn't we accept the odd evening off?

This also describes the guilt that couples may have to navigate in accepting practical support offered by family members. Couples also discussed using family members as a source of emotional support aiding coping. However, couples also commonly described additional barriers in accessing support from wider family systems, such as a lack of understanding of perinatal mental health difficulties and difficulties navigating disclosure of information. A common factor that was also found for many couples was the impact of geographical and emotional distance from family on the ability to access this support.

Discussion

These findings suggest that couples engage in common dyadic coping strategies, as defined within the STM, to support management of their emotions and to jointly cope with parenting tasks. Within interviews, couples talked about coping with the demands of becoming parents whilst coping with co-occurring mental health difficulties. This suggests the importance of considering how couples cope with these interlinking experiences together, to provide a fuller picture on the realities of challenges that are faced by this population. This study also found that mothers or birthing people required greater support within the couple due to experiencing perinatal mental health difficulties. This was managed by partners engaging in supportive dyadic coping strategies, to help mothers or birthing people to reflect on their emotional states and to cope when experiencing heightened mental health difficulties. Partners were also found to engage in delegated dyadic coping to support the mother or birthing person to engage in self-care activities, both aligning with STM model. It was also found that partners

engaged in avoidance of sharing their emotional experiences with the mother or birthing person.

A theme evident in the data was the disparities in health care experiences across care settings. Community perinatal mental health support was mostly experienced as person-centred, helping the mother or birthing person to develop self-compassion. Couples also described difficulties in interactions within maternity care and barriers to trauma informed care. Across both mental health and maternity settings there was a sense of a lack of couple and partner focused care. This was viewed as a barrier for partners in accessing support for their own mental health needs. These findings highlight the benefits of moving towards models of supporting mothers or birthing people within their wider systemic contexts. These findings also showed the importance and the complexities of accessing wider family support for many couples.

Emotional Regulation, Compassion and Coping

This study found that couples engaged in shared compassion strategies to improve individual wellbeing and to manage responses towards their children.

Compassion is commonly defined as "the sensitivity to suffering in self and others, with a commitment to try to alleviate and prevent it" (Gilbert, 2014). Three flows have been proposed relating to how individuals engage with compassion: compassion shown towards the self, compassion directed towards others and compassion received from others (Gilbert, 2020). These findings suggest that within the perinatal period couples have a greater need to develop shared compassion towards their emotional experiences to cope together and to support the needs of their children. Although this experience may be common to all new parents, research has shown that emotional regulation difficulties are commonly experienced by mothers or birthing people with perinatal mental health difficulties (Verhelst et al., 2024). This suggests that couples coping with these experiences, may have greater need to be sensitive and respond to emotional needs.

Some couples also talked about the impact of their childhood experiences on coping. Within the literature, there is convincing evidence on the impact of attachment difficulties, internal working models of relating that develop in relation to inadequate responses received from caregivers, on emotional regulation and mental health difficulties (Mortazavizadeh & Forstmeier, 2018; Zhang et al., 2022). However, more limited research has explored these factors within perinatal mental health, despite the

challenges to identity, relationships and emotional overwhelm experienced within this period (Wadephul et al., 2020). Attachment models (such as the Dynamic-Maturational Model; Crittenden, 2006) may provide helpful frameworks for understanding the impact of experiences of being parented on how individuals and couples cope with perinatal related stress. An important aspect within the data was the need to adapt to differential individual coping needs within the couple. It is likely that individuals who have experienced attachment difficulties in childhood may require greater adaptation to individual coping needs at the couple level.

These findings also indicate that community perinatal mental health services support the development of emotional self-reflection and self-compassion for mothers and birthing people with moderate to severe mental health difficulties. This is consistent with, O'Brien et al. (2024) who explored women's experiences of secondary perinatal care, finding that support helped them to establish a more coherent sense of self, to better tolerate difficult emotions and to develop self-compassion. This is important considering evidence of the positive associations between self-compassion, emotional regulation and perinatal mental health outcomes (Carona et al., 2022). Supporting the development of individual self-compassion, would also likely increase the ability for couples to engage in shared compassion strategies (for example by supporting individuals to accept compassionate support from their partner when needed), providing an understanding of how this support may also facilitate dyadic coping processes.

Supportive, Delegated and Protective Buffering Coping Strategies

This study found that couples engaged in common dyadic coping strategies to manage parenting tasks. Couples talked about the discrepancies between their preconceived parenting expectations and the realities of coping with these tasks. Linked to this was the felt sense of an avoidance within social networks of talking about the realities of parenthood. This aligns with research highlighting the societal idealisation of parenthood and silencing of negative experiences of motherhood (Law et al., 2021). For these couples, this sense of lack of preparation, made it more difficult to navigate the overwhelm of parenting information. Partners were also found to assume the responsibility for greater levels of parenting tasks to support the mother or birthing person to engage in self-care. These findings align with the evidence base showing supportive and delegated dyadic coping studied in response to a range of physical illnesses (Weitkamp et al., 2021) and mental health difficulties (Landolt et al., 2023).

It was also found that partners engage in protective buffering strategies. The Relationship-Focused Coping Model (Coyne & Smith, 1991, O'Brien & DeLongis, 1996) proposes protective buffering as a mechanism by which partner's attempt to hide difficulties to protect the other member of the couple. Within this study this was linked to a desire from partners to remain "strong". Evidence from cancer research shows the negative impact of protective buffering on psychological distress (Manne et al., 2007), lowered relationship satisfaction and decreased quality of life (Chen et al., 2021). Perinatal research has also found masculine gender role stress as a significant factor for paternal perinatal mental health difficulties (Chhabra et al., 2022). Despite the positive intent of partners, this strategy may lead to greater distress overall and potential engagement in maladaptive coping strategies. This may also create unhelpful dynamics within the couple, situating the mother or birthing person as the sole person experiencing difficulties, ignoring the additional impact of avoided stress experienced by the partner.

Moving from Individualistic to Systemic Models of Support

These findings also show a lack of partner involvement in care and support aimed at improving the wellbeing of partners. These experiences are situated within the context of perinatal mental health and maternity services structured to focus predominantly on the wellbeing of the baby and mother or birthing person. Qualitative research into partners experiences of maternity care found a desire from partners to be involved in care, but also feelings of exclusion, difficulties navigating their roles and questioning the legitimacy of paternal mental health difficulties (Steen et al., 2012; Darwin et al., 2017). This evidence challenges the ways that individualised support within the perinatal period is structured. It is also important to consider the role that these structures may play in utilised dyadic coping strategies. For example, by predominantly focusing on assessing and supporting the needs of mothers or birthing people and neglecting partners within support, services may be inadvertently communicating to couples that difficulties experienced by the partner are less important and should be minimised, which may reinforce partner strategies such as protective buffering. Through this approach, services may also be missing the opportunity to support partners to develop self-compassion towards the difficulties they experience and to accept support from mothers or birthing people, which may be a mechanism to enhance shared levels of compassion and coping.

These findings also indicate the potential benefits of greater levels of involvement of partners within therapeutic perinatal support. This aligns with emerging studies finding positive outcomes for maternal anxiety and depression in interventions including partners and family members (Noonan et al., 2021). Lever Taylor et al. (2017) explored partner's views of perinatal mental health services, finding some themes of partner ambivalence towards their involvement in care. Within this proposal, it is also important to consider the potential additional challenges for mothers and birthing people in including partners within therapeutic care, such as interpersonal violence. Garthus-Niegel et al. (2021), highlight the importance of further research into couple focused approaches to consider the benefits and the complexities of expanding therapeutic support to the family context.

Impact of Maternity Care Interactions

Exploring perspectives of support showed that many couples experienced difficulties within maternity care interactions. Couples described not feeling listened to by staff and a lack of person-centred and trauma informed care. This aligns with the wider literature which shows experiences of negative communication from professionals within antenatal care (Attanasio & Kozhimannil, 2015) and an unwillingness from professionals to attend to psychological needs or involve patients in treatment decisions within the post-natal period (Megnin-Viggars et al., 2015). This is additionally important considering evidence that poor quality of provider interactions is a major factor in the development of birth trauma (Simpson & Catling, 2016). Patterson et al. (2019) investigated the impact of unmet needs for both midwives and women accessing maternity care. They found that systemic issues within the maternity system led to unmet needs for both groups, resulting in poorer quality of interactions. Given associations between childhood trauma and perinatal mental health difficulties (Choi & Sikkema, 2016), it is particularly important for these issues to be addressed, with further emphasis on trauma informed care within these settings.

Engagement with Family Support

This study also found the importance of family support to couple's experiences of coping. It was found that families provided practical support which enabled couples to engage in activities beyond their roles as parents. The importance of emotional support provided by family members was also evident, with a particular role in supporting partners who may experience barriers to communicating emotional

difficulties. However, this also highlighted the difficult dynamics for many couples in receiving support from families.

Strengths and Limitations

A strength within this study was the use of joint interview methods to explore couples' experiences. This design allowed for the experiences of both members of the couple to be heard and to facilitate couple interactions to expand meanings beyond interview questions. A further strength was the inductive-deductive approach to data analysis. This strategy allowed for the flexibility to gain new understandings of themes whilst also aligning with a theoretical model which has been well established within coping research.

There are also limitations within this study that should be considered. There are potential biases of couples recruited through specialist community perinatal services. People who have more positive experiences of these services may be more willing to participate and may not be fully representative of wider experiences of couples accessing professional support. The agreement of both members of the couple to participate may also reflect couples within higher functioning relationships, whose experiences may not be representative of dyadic coping in couples with increased relational difficulties.

This study also found that couples coping with perinatal mental health difficulties engaged in common, supportive and delegated dyadic coping, with limited engagement in negative dyadic coping. However, this understanding of negative experiences may be limited by social desirability which may occur when interviewing both members of the couple together. This study also found that partners engaged in protective buffering strategies. There is the potential that this strategy to shield their partners from difficult experiences may reduce the likelihood of communication of the negative aspects of coping by partners within the dyadic interview process.

Clinical and Research Implications

This study highlighted the importance of dyadic coping processes for couples experiencing moderate to severe perinatal mental health difficulties. It suggests the limitations of services providing support for mothers or birthing people at an individual level, without consideration of the wider systems within which they are coping. These findings show that partners play an important role in supporting mothers and birthing

people to cope at a practical and emotional level. Services should utilise these insights to further assess, formulate and facilitate coping mechanisms at a couple level to foster increased resiliency for mothers and birthing people experiencing perinatal mental health difficulties. For example, this could consider found factors relevant to coping such as how stress is communicated within the couple, levels of compassion shown at the individual and shared couple level, attachment difficulties, partner mental health and wider family support systems. At an intervention level this could include greater provision of family and couple focused support and greater level of partner involvement in therapeutic support within perinatal services.

These findings also propose an increased focus on perinatal mental health support for partners, aimed at supporting them to recognise and cope with their own mental health needs, rather than their needs solely as a supporter. Services should aim to increase levels of communication with partners to hear their perspectives and experiences. They should also strive to recognise and support partners utilising unhelpful strategies such as protective buffering and linked difficulties, such as partners' connecting with the idea of being "strong" or male partners aligning with masculine gender roles. Supporting partners to consider their own needs and the potential detrimental impact of these strategies, may also support mothers and birthing people to feel less alone in experiencing emotional difficulties, and allow for greater opportunities for them to switch roles from supported to supporter. One mechanism through which this might be achieved may be through compassion focused approaches, supporting members of couples to engage with compassion towards their own difficulties and to be better able to provide and receive support from their partners, enhancing a shared approach to coping with perinatal mental health difficulties. Although these findings are suggestive of greater involvement of partners, it is important to acknowledge that further research is needed to consider the complexities of expanding support and to meaningfully engage with partners as part of couple focused approaches.

It was also found that unhelpful interactions with healthcare providers can have negative impacts on the stress experienced by couples within this period. This links to the importance of maternity care as a pathway for couples accessing specialist perinatal mental health support. This proposes the need to review and develop greater levels of person-centred and trauma-informed care within maternity services, focusing on awareness and screening of maternal and paternal perinatal mental health difficulties and addressing wider systemic issues, such as staff shortages and burnout. To support

this approach, specialist mental health services should seek to form stronger links with maternity services, for example through increased multiagency working, training and consultation, to increase the potential for couples experiencing difficulties to access the support that they need. This also highlights consideration of the ways in which couples receive information on perinatal mental health difficulties and how we can better support people within this period to recognise their own support needs.

Conclusion

This study suggests that couples experiencing perinatal mental health difficulties engage in dyadic coping strategies, supporting management of stress and wellbeing at individual and couple levels. This study found discrepancies in experiences of perinatal and maternity care, with positive and negative influences on coping for these couples. The limitations of models of support focusing almost exclusively on the mother or birthing person are proposed, with suggestions for greater consideration of wider systems. Changes to individualised approaches would aim to facilitate greater dyadic coping to support positive outcomes for mothers and birthing people and break down existing barriers for partners in accessing support for their own mental health needs.

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Chapter Five

Additional Methodology for Empirical Paper

Additional Methodology for Empirical Paper

Adapting Methods to Dyadic Approach

Dyadic interview methods were chosen within this study due the aim to understand couples' shared experiences within this area. Dyadic methods have increasingly been utilised across research to study psychological and relational experiences (Eisikovits & Koren, 2010). It has been proposed that these methods increase depth of analysis due to participants triggering ideas for each other, through participants supporting each other to share and explain experiences and through further time provided for each participant to reflect and process explanations (Morgan et al., 2013). However, studies utilising these methods have also been criticised for the limited reporting clarity of the adaptations made to individualised qualitative methodology to incorporate and enhance the benefits of dyadic approaches (Tkachuk et al., 2019).

A key aspect of the dyadic approach is in the interactions between participants, which provides the opportunities for agreements and disagreements not produced within individual designs (Morgan et al., 2013). Therefore, a key task within this study was in the researcher allowing space for these aspects within interviews, and to consider this additional complexity within the analysis process. Within this study the topic guide was developed with the aim of aiding interactions, for example asking questions focused on the shared experiences of transitioning to parenthood, coping as a couple and the impact of perinatal mental health difficulties on the relationship (Appendix K). Despite this design decision, alternative question designs could have been adopted by researchers to facilitate increased interaction. For example, in some dyadic research participants have been provided with a topic or vignette for discussion, enhancing the shared constructed narrative with limited influence of the interviewer (Bennesved et al., 2024). However, this design does align more with conversational and constructionist methodologies such as discourse analysis, outside of the focus used within this study. This approach also has its limitations in that the researcher is less able to support in management of dynamics between the dyad, which may result in power imbalances.

Within interviews, researchers attended to couple dynamics and the balance of contributions from both members. If it was assessed that participants were unevenly contributing, the interviewer attempted to address this issue by prompting the other member of the couple, using questions such as "Was your experience the same or did you experience this differently?". Responsivity to dynamic issues that arose facilitated

dyadic interactions within this approach and greater opportunities for agreement and disagreements. Despite these attempts, it is important to highlight the potential for couples to conceal their disagreements with their partner. This may occur to present in a harmonious, socially acceptable way to researchers or to avoid conflict within and beyond the interview space. The issue of participants answering questions in socially acceptable ways can be considered a challenge to validity in wider qualitative research methods. However, this may be a particular issue within dyadic methods, where the partner is an additional person to whom individual participants may desire to present themselves more positively (Lowton et al., 2018).

Within this study, a theme of common dyadic coping was generated from the data, with more concurrent and less discordant information found within shared experiences. This may reflect the reality of dyadic experiences of coping with parenthood and perinatal mental health difficulties but however, may also reflect the issue of unspoken conflicts in experience. Eisikovits and Koren (2010) propose that conducting both separate and joint interviews with participants can support to alleviate this difficulty within dyadic methods. However, despite the benefits of this approach, this would have increased the burden for participants in this study which may have impacted on recruitment. Additionally, it was considered that conducting interviews jointly would align more closely with the aims of this study focused on understanding shared experiences of the phenomenon of perinatal mental health difficulties, providing new meanings beyond that of individual approaches within the literature.

Through reflection on interview processes within researcher debriefs, it was identified that there were also points at which one member of the couple would speak to the experience of the other. This was considered a benefit of the dyadic approach, allowing for members to support each other to share experiences. However, this may also reflect an ethical issue of power imbalances related to recruitment of couple participants through individual clinical interactions with the mother or birthing person. Lowton et al. (2018) discuss the ethical dilemmas of this commonly used recruitment approach within dyadic health research. They suggest that this practice can position the member of the couple who is initially approached as a gatekeeper, responsible for initially showing interest in the research and conveying this information to their partner. They suggest that this may lead to difficulties in differing participation motivations and issues in achieving informed consent due to the potential for partners to be convinced to participate by their partner (Lowton et al., 2018). In order to be sensitive to these issues,

researchers ensured that participant information sheets (Appendix H) were shared with both members of the couple prior to consenting to participate. Greater care was also taken within interview briefing to ensure that both participants understood study information and consented freely to participate. Consent and demographic forms used within this study are displayed in Appendices I and J. The decision was also made that if only one member of a couple consented to participate or one member of the couple decided to withdraw their data, that both participant's data would be withdrawn from the study. It was also communicated to participants that deciding not to take part would have no consequences beyond that of the research, for example not impacting on the care received from perinatal services.

Interestingly, within interviews in this study it was noticeably more prevalent for the mother or birthing person to speak to the experience of their partner. This may reflect the influence of found gendered difficulties in sharing experiences and protective buffering, but also the potential power imbalances in recruiting through services focused almost exclusively on the experiences of the mother or birthing person. In this way this dynamic may reflect the approaches that couples have developed in telling their narrative with the priority on the experiences of the mother or birthing person within clinical interactions. Alternatively, through use of reflective journalling it was noticed that within analysis the partner's voice was potentially more prioritised by the researcher. This was made sense of through a felt need to redress these imbalances and lack of partner involvement in perinatal mental health research and service provision. Head et al. (2021) discuss the utility of dyadic interviewing to "open up the possibilities of hearing unheard voices". This presents the possibility of these methods in supporting recognition the voice of partners who within perinatal research and clinical practice are only recently beginning to be heard.

Researchers also considered the sensitivity of the research topic for participants and the additional risk of harm in dyadic interview methods, where information brought up within interviews could have the potential to cause conflicts beyond that of the interview space (Lowton et al., 2018). To support open discussion related to this issue, it was highlighted to participants that they could refuse to answer a question or stop the interview at any point. Researchers also monitored signs of distress, checking in with participants were appropriate throughout the interview process. Participants also were provided a space after interviews for debrief and reflection on the process. The debrief information included relevant organisations for signposting for further support

(Appendix L). This issue was also a topic discussed within researcher debriefs to consider consistent management of conflicts. Within the interview procedure it was also ensured that a lone working plan was adhered to, to minimise risks and maximise support for researchers whilst conducting interviews.

Additional Analysis Information

Within the empirical research project, researchers aimed to recruit between eight to 12 couples to address the research questions. Braun and Clarke (2021) suggest that researchers using thematic analysis should be reflexive to intersecting aspects of the methodology when estimating sample size. It was proposed that this estimate would be sufficient for meaningful exploration of the research questions considering: the aim of understanding couple's lived experiences, the interactions within dyadic design generating greater depth of data and the likely heterogeneity of the sample due to the inclusion criteria.

Within the analysis process the six stages of thematic analysis outlined by Braun and Clarke (2006) were utilised with adaption to the dyadic approach:

- Familiarisation with the data: within this process transcription was considered an initial process of familiarisation, followed by the researcher reviewing interview recordings and rereading transcripts, recording initial ideas and concepts identified through this process.
- Generation of initial codes: the researcher systematically coded features of the data, collating an overall list of codes generated from the data. It was also noted at this point whose narrative, within the couple, codes related to and where these experiences reflected dyadic agreements or conflicts.
- Searching for themes: generated codes were sorted into initial themes, with an
 emphasis on semantic level themes that represent the data at descriptive level but
 with additional consideration of latent themes that represent interpreted
 meanings beyond descriptive level data.
- Reviewing themes: the researcher reviewed initial themes considering how they relate to the data, allowing for generation of new themes that provide a closer representation to the data. An inductive-deductive approach was used at this stage to allow for flexibility of themes to be generated from the data whilst also informed by established dyadic coping theory. A visual thematic map was developed at this stage to aid in these processes.

- **Defining and naming themes:** within this stage the research focused on refining and identifying concepts within themes, creating names and definitions for each theme. At this stage the researcher also considered the relation and structure of themes to the research questions.
- Writing the report: at this stage the researcher extracted quotes from the data
 that support understanding of the story of themes. Dyadic quotes were included
 to add to the explanation of the generation of meanings within dyadic
 interactions.

Transcription was undertaken by the researcher conducting the interview. Due to the joint project with differing research questions and analytical approaches, the depth of transcription was aligned to meet the needs of the approach that required the most detail for analysis. Therefore transcription 'thickness' aligned more closely to a naturalised approach with idiosyncrasies (such as non-verbal language, tone of voice and pauses) transcribed in enough detail to allow for in depth examination of experience within these differing approaches (Point & Baruch., 2023; Azevedo et al., 2017). The transcription method therefore followed a primarily intelligent verbatim approach with inclusions of assessed important contextual information (McMullin, 2023). However, within presented extracts, less idiosyncrasies were included to enhance clarity of meanings for readers across themes.

Interviews were coded on paper with initial codes recorded as they were generated from the data (Appendix M). To support the process of generating codes, a table within Microsoft Word was also used to record codes generated from the interview data (Appendix N). This included columns to record whose narrative the code related to, whether this reflected an agreement or disagreement at the couple level and provided space for initial reflections. Previous dyadic research has been criticised for its use of quotes from one member of dyadic participants, limiting the understanding of readers of interactions related to shared meanings (Tkachuk et al., 2019). Within this study, individual and couple quotes were utilised based on their relevance and the links to the theme discussed, to allow for examination of interactions of data generated.

Pseudonyms were used throughout for participants and referenced members of wider systems, including children, to maintain confidentiality. Researchers also scrutinised and exclude personal information used within extracts to mitigate the risk of participants being identifiable as far as was possible.

Introduction to Reflexivity

Qualitative research is an approach within which the researcher is intimately involved, intertwined with the processes of study design and conduct, and generating meaning from the findings. As qualitative research has evolved, the importance of recognising researcher involvement and as a part of the social world being studied, has received increasing attention. One idea that has developed from this movement is reflexivity as a key aspect of enhancing rigour in qualitative studies (Jootun et al., 2009). Reflexivity has been proposed as a continuous process of self-reflection and transparency on the influence of researchers across research stages (Dowling, 2006; Darawsheh, 2014). Furman (2004) argues that researchers should be aware of in the moment internal and external responses to participants, whilst also being aware of their overall relationship to the research topic. From this perspective two types of reflexivity have emerged as key areas of consideration for researchers; personal and epistemological reflexivity (Dowling, 2006).

Personal reflexivity relates to the self-awareness of researchers to their own beliefs, experiences and values and how this may influence choice of research topic, methodological choices and interpretation of meanings from data. Ultimately this concept is concerned with the filters through which researchers make study decisions and understand participant experiences. Epistemological reflexivity relates to what is knowable within social research and requires researchers to reflect upon their assumptions of the world and knowledge, and how this shapes the formation of understanding gained through qualitative research. Across these dialogues of reflexivity, it is important to also consider the limitations of reflexivity in the social influences, beliefs and philosophies that researchers can be aware of within themselves. Despite this, it is important that researchers attempt to consider their role and influences within qualitative research, to strive for openness and credibility in qualitative practice, allowing readers to more clearly understand and interpret the spheres in which research findings are generated.

Personal Reflexivity Applied Within this Study

To enhance personal reflexivity within this study, a reflective diary was used during study design, data collection and analysis to reflect on the influence of my experiences and beliefs on my decision making, interactions with participants and the meaning making of participant experiences (Appendix O). This supported me to reflect

on my choice of conducting a research project within the field of perinatal mental health. I have reflected that this choice was likely influenced by my age, being in my late twenties, which has resulted in my exposure to others within my close social network having babies and making family planning decisions, and the pressure and challenges to mental health that can occur within this space.

An important reflection that arose in generating themes was the meaning I made of the shared difficult experiences that participants communicated around their interactions with maternity staff. In a previous role as an assistant psychologist, I worked within a Myalgic Encephalomyelitis/Chronic Fatigue Syndrome service. Within this role, I worked with many service users who had experienced difficult journeys to diagnosis and stigmatisation and judgement within healthcare interactions. Within a previous placement as a trainee, I also worked within a hospital setting. One of the aspects of this role I found challenging was witnessing the impact of limited hospital resources and unhelpful workplace cultures, which in my view resulted in a lack of sensitive, person-centred care. When analysing the data within this study, I reflected on the possibility of my own developed beliefs impacting my ability to generate themes of experience that accurately reflected participant experiences, as opposed to my own preconcepts. This reflection allowed me to examine the data further to check the validity of my interpretations (Yardley, 2000). To enhance rigour within this process, a decision was made to ensure that quotes were embedded throughout explanation of themes to enhance links for the reader between the data and researcher interpretations. I also reflected on this potential bias within discussions with supporting experts by experience to gain further external input into this issue, beyond the limits of my own insight.

As half of the interviews were conducted by another researcher, debriefs were held between researchers to discuss interview processes and our initial reflections. This supported us to consider the similarities and differences of social contexts and experiences between researchers and the influences this may have had on interview processes. For example, we reflected on the likelihood of our different approaches in relation to being a parent or not, as the other researcher had personally experienced the transition into parenthood and coping with having a baby, and I had not. We considered that my experiences may lead to less personal knowledge of coping with being a parent. We also considered that this may also allow me to take a more neutralised position, with interpretation of participant experiences less likely to be influenced by my own person experiences. Reflexivity to this social context supported me in the development of an

interviewing style which included techniques of summarising and checking my understanding, to further explore participant experiences to enhance understanding beyond my own social experiences.

Researcher Epistemological and Ontological Position

Aligning with epistemological reflexivity, it was important as a researcher to consider my epistemological and ontological approach and how this shaped the structure and generation of meanings within this study. I align with a critical realist stance which proposes that reality is stratified across multiple levels which can only partially be accessed through research due to a multitude of unobservable social and contextual casual mechanisms (Bhaskar, 1989). Critical realism draws from both positivist and constructionist approaches, more consistent with a contextualist epistemological approach, which proposes that knowledge emerges from social environments and is true within those contexts (Madill et al., 2000). Critical realism proposes that reality is stratified across three main interrelated domains; the real, the actual and the empirical (Bhaskar, 2013). The real consists of an unobservable reality of experiences and casual mechanisms which generate events at the actual level. The actual level consists of observable and unobservable events that are generated when a causal mechanism is activated at the real level. The empirical level consists of the events which are experienced, known and observable through research. Within a critical realist framework, researchers attempt to develop knowledge and understanding of phenomena through analysis of experiences of social events and their relationship to underlying casual mechanisms (Lawani, 2021).

Application of Critical Realism

Critical realism has been adopted as a position to explore phenomena across social and healthcare research due to its utility in examining experiences and influencing social mechanisms, which supports clinical and policy recommendations that meet the complexity of social problems (Sturgiss & Clarke, 2020). However, as an approach, it has been criticised for the lack of clarity in guidance on its application within research methodology (Fletcher et al., 2017). Fletcher et al. (2017) provide a framework for their implementation of critical realist approaches within research methodologies. They utilise the process of abduction, which considers the observable events found at the empirical level within the data and redescribes these events using

theoretical approaches, to gain a deeper understanding of the potential unobservable events at the actual level and casual mechanisms within the real level.

They also apply the approach of retroduction, which focuses on the underlying causal mechanisms and the conditions within which these mechanisms are activated to generate observable events. Aligning with this process, an inductive-deductive approach was taken within coding and generation of themes from the data within this research. This allowed understanding to be generated from participant experiences within this novel area, whilst also allowing for application of established theory to enhance understanding of mechanisms beyond that of participant and researcher awareness. The dyadic method was considered consistent with a critical realist approach allowing insight into causal mechanisms enhanced by interactions between members of the couple but still limited by experiences that are reflected and observable within the couple experience.

Abduction was adopted through the naming and organisation of themes into categories of dyadic coping within the Systematic Transactional Model (STM; Bodenmann, 1997) and the Relationship-Focused Coping Model (RFCM; Coyne & Smith, 1991; O'Brien & DeLongis, 1996), where this was considered meaningful to the data. The process of retroduction was utilised through consideration of the mechanisms through which dyadic coping was experienced and the conditions which were necessary for these processes to be actualised. For example, within this study, what was observable within interview interactions was the avoidance of partners in sharing their difficulties with the mother or birthing person due to concerns about burdening them. What was also observable was the impact of this approach on the mother or birthing person, leading to difficult emotions for them and unhelpful couple dynamics. For the partner this also led to unsupported perinatal mental health difficulties and use of maladaptive alternative coping strategies. Through application of dyadic coping theory, the researcher was able to further reframe and understand these experiences through the partner engaging in protective buffering.

Exploring beyond these observable meanings, the researcher was also able to consider the impact of gender role stresses on this process of suppressing and shielding emotions. It was considered likely that these internal conflicts were increasingly activated for partners and couples, within the context of transitioning into becoming parents and may be actualised through a desire for male partners to take on a gendered protector role. The researcher also considered the additional conditions of the

stigmatisation of perinatal mental health difficulties for both members of the couple, but particularly male partners, which is in the early stages of being recognised within society and the research field. Additionally, the structures and provisions of perinatal mental health support focused primarily on mothers and birthing people were considered and the likely resulting reinforcement of gender roles and deprioritisation of partner's mental health within the partnership. Finally, the role of the societal idealisation of parenthood was also considered as a casual mechanism impacting on the expectations of both partners and causing greater difficulties in coping and self-criticism, when realities were not consistent.

Involvement of Experts by Experience

Experts by experience who worked as peer support workers within community perinatal mental health teams supported in the design of this research, the development of accessible participant information and reviewed generated themes. This support was aimed at enhancing the overall reflexivity throughout the research process and credibility of the findings. An example of this process was in feedback provided on the importance of including quotes from both members of the dyad to enhance reader understanding of the links between the data and the meanings made. Another important aspect of this was in the additional perspectives in considering the validity of recommendations for research and clinical practice and consideration of how closely these conclusions related to participant experiences.

These processes were supported by involved experts by experiences working as peer support workers, which allowed for participant experiences to be understood through personal experiences but also through professional roles in supporting couples experiencing perinatal mental health difficulties. However, it was additionally considered that holding these professional roles would also have shaped and developed their beliefs and perspectives on these experiences. This was highlighted within the ethical review process where it was raised that this input may be less helpful in ensuring that participant information was written in an accessible way due to these experts by experience having additional knowledge of mental health language through their professional roles. To support in addressing this difficulty we therefore sought alternative feedback on our participant materials from additional lay people who had experiences of being parents.

Dissemination

After completion of interviews, participants were asked to verbally consent to further contact if they would like to receive dissemination of research findings. It is planned that a lay summary will be produced by researchers to disseminate to consenting participants and service teams following submission. Participants will also be sent links to any publications relating to this project.

Chapter Six

Critical Evaluation and Discussion

Critical Evaluation and Discussion

This chapter provides a discussion and critical evaluation of the thesis portfolio in its entirety. It includes a summary of the findings across the systematic review and empirical paper, exploration of findings within wider theory, reflection on thesis strengths and limitations, and discussion of clinical and research implications, with suggestions of areas for further research.

Summary of Findings

The systematic review was aimed at providing further insight into the factors that influence dyadic coping strategies for couples experiencing infertility. The review found important factors associated with dyadic coping across individual, couple and social levels. These findings suggest the relevance of individual attachment styles on how members of couples experiencing infertility respond to stress themselves and how they engage in dyadic coping strategies. This provides a potential area to support formulation of coping difficulties for infertile couples and a framework for tailoring intervention. It was also found that the level of experienced fertility related stress is important to the resources that couples have to engage in helpful dyadic coping strategies to support overall wellbeing. However, it was determined that further research is needed to understand the causal relationships between these variables. These findings also propose that couples experiencing infertility for a longer duration may engage in decreased dyadic coping strategies, which may be an important clinical consideration when assessing couples with greater levels of need. There was mixed evidence for the impact of age and length of relationship on dyadic coping within this population, but these areas provide potential focal points for future research. Several other emerging psychological and social factors were also discussed within this review, with the insufficiency of current evidence creating limitations in conclusions drawn but providing areas for study within this developing field.

The empirical paper was aimed at understanding couples' experiences of coping with moderate to severe perinatal mental health difficulties and how interactions with wider support systems influence these processes. Several themes related to coping were generated from the data, with a key finding being the intertwined experiences of coping with stress related to parenting and perinatal mental health difficulties. These findings suggest the importance of dyadic coping for couples coping within these experiences. They suggest that couples engage in shared compassion to support regulation of their

emotions and to manage parenting tasks. It also found that couples adapt to the additional needs of the mother or birthing person through the partner providing greater levels of support. However, analysis within this theme also showed the challenges that this can raise for couples.

This study suggests the role of specialist perinatal mental health services in supporting emotional regulation capacities and development of compassion, impacting on relational coping. However, it also proposes the limitations of service models structured to provide support focused almost exclusively on the mother or birthing person. These findings make an argument for the increased inclusion of partners within service interactions and therapeutic support. This study also brought attention to difficult experiences of interactions with professionals within maternity care. It suggests the importance of the development of a person-centred culture for staff and service users. These changes would aim to reduce iatrogenic harm, enhance trauma informed care and foster trust within care interactions to provide greater opportunities for couples to be signposted to perinatal mental health support. This study also found the importance of familial support for dyadic coping but raised the complexities for many couples in accessing this support.

Together, the findings of both papers highlight the importance of considering coping at a dyadic level within couples, in response to stressors related to infertility and perinatal mental health difficulties. They suggest the importance of considering individual developmental experiences, coping resources and wider biopsychosocial influences and how these impact on communication of stress and responses within relationships. They also both highlight the complex interaction of wider systems of support with dyadic coping processes for couples experiencing difficulties across varying stages of reproductive health.

Stages of Psychosocial Development Theory

Erikson's stages of psychosocial development were first proposed in the early 1960s, expanding on ideas of sequential developmental stages by scholars such as Freud and Piaget (Erikson, 1963; Erikson, 1968). Erikson proposed eight stages that individuals go through across their lifespan which provide the foundation for the development of identity, formation of relationships and overall wellbeing (Rogers, 2018). This theory relates to how individuals experience and navigate periods of psychosocial transition, considering new internal conflicts they may be confronted with

and the impact of potential unresolved conflicts within previous stages (Youvan, 2024). Both infertility and perinatal mental health difficulties serve as transitional and adaptive periods for individuals, presenting the relevance of this theory to understanding phenomena within these areas. Erikson and later authors have also considered the relational and interactional nature of identity development, as a process within which individuals attempt to assimilate and integrate experiences in the context of social relationships (Kerpelman & Pittman, 2018). This again closely relates to the focus within this portfolio, on the interdependent processes within close relationships and influences of wider systems on management of stress related to reproductive health.

The stages of psychosocial development proposes that each developmental stage is characterised by key psychological conflicts, as shown in Table 3. It also considers the influence of biopsychosocial factors on how individuals develop across life stages. As individuals move through each stage, they achieve either a positive or negative outcome based on how they manage this conflict (Darling-Fisher, 2019). Resolution of these conflicts result in internal strengths, which contribute to wellbeing and adaptability in facing challenges within life. Unresolved conflicts result in maladaptive difficulties that lead to adverse outcomes in following life stages. In particular, this theory proposes that negative outcomes accumulating across multiple stages results in negative outcomes in the final stage, where individuals engage in contemplation across the life stages. Despite the sequential nature of these stages, Erikson proposes that conflicts do not have to be fully resolved to move onto the next stage (Erikson, 1963; Erikson, 1968). It is also suggested that conflicts within later stages can trigger enduring conflicts at previous stages, leading to resolution. The stages of psychosocial development have been applied to further understanding of psychosocial difficulties across healthcare research (Darling-Fisher, 2019).

Table 3Stages of Psychosocial Development and Related Conflicts

Stage	Conflict	Description
1: Infancy	Trust vs Mistrust	Infants are dependent on caregivers. Through
		responsive caregivers sensitive to their need's
		infants develop a sense of trust. Through
		unresponsive caregivers, infants develop a sense of
		mistrust in others and greater fear of the world.
2: Early childhood	Autonomy vs Shame	Dependent on caregivers, children develop a sense
	and doubt	of self sufficiency or doubt in their abilities and
		related feelings of shame.
3: Preschool	Initiative vs Guilt	Children develop confidence and initiative through
		caregiver involvement or guilt through caregiver
		criticism.
4: School age	Industry vs	Children develop a sense of accomplishment
	inferiority	through praise or beliefs of inferiority through
		comparisons with peers.
5: Adolescence	Identity vs Identity	Adolescents contemplate childhood experiences
	confusion	and differing selves, to develop a sense of identity
		or become stuck in confusion around their identity.
6: Early adulthood	Intimacy vs Isolation	Individuals form intimate relationships with others
		or struggle to form connections, resulting in
		experiences of isolation.
7: Middle adulthood	Generativity vs	Adults are involved in developing contributions to
	Stagnation	the world including contributions of the
		development of others through parenting or
		coaching. Without involvement in generative
		activities adults become stuck and "stagnant".
8: Late adulthood	Integrity vs Despair	Late adulthood is a period of contemplation, where
		individuals reflect on life achievements leading to
		satisfaction or regret and despair dependent on
		experiences across previous life stages.

Experiencing infertility may cause challenges for individuals in their sense of generative purpose, creating potential difficult feelings related to unachieved life goals and feeling stagnant within this life stage. Within the systematic review findings, one of the key factors related to coping for infertile couples was levels of infertility stress, linked to duration of infertility. These findings could be made sense of within this theory as increased stress related to felt stagnation within this stage, which is likely to

increase the longer couples experience infertility. This may also relate to the emerging findings that increased age may lead to lowered engagement in coping processes. It may be understood that as age increases more pressure might be felt to achieve generativity, associated with biological factors of decreasing fertility with aging.

Length of relationship was also found as a potentially important factor. This relates to potential resolved conflicts within stage six and the buffering impact that gained intimacy within relationships may have on how individuals navigate conflicts within the next stage. The systematic review also found the potential impact of social factors on how couples cope with infertility difficulties. This aligns with this psychosocial model, considering the influence of social and societal factors on how couples experience life stage conflicts. This model can be considered within a dyadic coping lens, thinking about the positive (strengths) or maladaptive coping strategies that are developed through each stage and how these interact with the strategies of partners within close relationships and developments of intimate connections within stage six.

Coping with perinatal mental health difficulties can also be linked to this model, considering the difficulties in the transition to parenthood and engagement in generative activities that parents may face, within the context of mental health challenges. A theme that came up within the empirical paper was the impact of the difficulties that people experienced in adjusting to the realities and challenges of parenting based on societally influenced preconceptions. Within this framework it could be understood that expectations of the experiences within stage seven may conflict with these realities leading to greater mental health difficulties. Furthermore, experiencing perinatal mental health difficulties in themselves, may be a challenge to resolution of conflicts within stage seven due to the impacts of moderate to severe perinatal mental health on functioning and parenting capacity, leading to likely reduced ability and self-efficacy in engagement in generative activities.

Also relevant within this framework is the cumulative impact of negative outcomes across previous stages on psychosocial outcomes within latter stages. Early life experiences and attachment difficulties were found in both papers to influence engagement in dyadic coping within couples. Kerpelman and Pittman (2018) propose the importance of childhood attachment relationships as a basis for identity development across relationships and life stages. They suggest that unresolved conflicts experienced within early stages, for example through experiences of unhelpful responses of caregivers, may lay the foundation for how individuals relate to themselves

and others, potentially negatively impacting on resolution of conflicts experienced within later stages of life. This may result in greater difficulties in adapting to perinatal mental health and infertility difficulties and reduced engagement in coping at a relational level. Aligning with findings across both papers of the importance of attachment and early developmental experiences on how couples cope with reproductive difficulties. Feelings of shame and guilt are also common difficulties experienced by women or birthing people with perinatal mental health difficulties (Caldwell et al., 2021). It may be understood that unhelpful interactions with caregivers within stages two and three may result in a predisposition for individuals to struggle with these difficulties, which may be brought into attention as individuals cope within this transitionary period of reproductive health. Through this lens, it may be conceived that unresolved conflicts within these earlier stages are enacted within later stages, impacting on adaptive and maladaptive strategies.

What is also consistent across findings within both papers is the importance of factors beyond the individual level. The stages of psychosocial development theory is fundamentally a psychosocial model of how people develop across the lifespan within their interactions and connections with society. This aligns with the meanings found within both papers, the importance of considering how people adapt to difficulties within their systems, with importance placed on biopsychosocial influences. With the systematic review focus on understanding relevant factors, this allowed for further exploration of potential influencing biopsychosocial factors.

The critical realist approach utilised within the empirical paper, also focuses on understanding potential influences beyond that observed by participants, aligning with this approach. However, despite this, within interviews discussions further biopsychosocial factors were described that were not able to be explored within the scope of the empirical paper. For example, the described biological impact of hormonal changes and difficulties in adapting to felt changes in relationships after becoming a parent. This may limit understanding of these wider influences within the empirical paper. Furthermore, as a theory the stages of psychosocial development has been criticised due to its research focus on white men, questioning its applicability across more diverse groups and participants within these studies. Despite these considerations, this theory provides a helpful lens for further understanding the findings within this thesis portfolio.

Strengths and Limitations

This thesis portfolio contributes to the understanding of mental health and coping across reproductive stages. A strength within both presented papers is the dyadic approach to understanding coping, moving beyond research and clinical practice focused on individual coping and functioning within this area. This approach is especially relevant within infertility and perinatal mental health, due to the huge transitions and relational impacts of these experiences for couples. There has also been growing evidence for dyadic coping as an important concept across health research to psychosocial outcomes (Weitkamp et al., 2021, Landolt et al., 2023), proposing the benefits of research adopting dyadic methodologies to further understand coping.

There are also several limitations that should be considered with the findings and implications of this portfolio. One important limitation within the evidence base that impacts on both findings is the inconsistencies in conceptualisation and measurement of dyadic coping and the key processes involved. Within the systematic review, this issue is evident in the methodological heterogeneity of studies included, creating challenges in data synthesis. What particularly differs across quantitative studies within health research, are decisions on whether to utilise dyadic coping specific, illness specific or generalised coping questionnaires, and whether it is essential for dyadic coping to be measured within individual or dyad participant groups. These variations create limitations in the establishment of a cohesive and reliable evidence base, impacting the utility of application of findings in clinical practice and development of clear research directions. The empirical study, although predominantly adopting the Systematic Transactional Model (Bodenmann, 1997) to support understanding of the data, also found evidence of coping strategies drawing from other dyadic coping models (e.g. Relationship-Focused Coping Model; Coyne & Smith, 1991; O'Brien & DeLongis, 1996). This indicates the need for revisiting evidence for important elements to dyadic coping with stressors, with the aim of developing a more consistent understanding of involved processes.

Relating to methodological issues, both papers within this portfolio also relied on self-reported measurements of dyadic coping. The systematic review synthesises understanding of dyadic coping based on a range of self-report questionnaires. It is likely that these findings may be impacted by reporting bias, for example participants answering in a socially desirable way, which may be more of an issue given the social stigmatisation of infertility (Hayat et al., 2025). This issue within the empirical paper differs in the qualitative approach to understanding experiences of dyadic coping. The

critical realist approach may support development of understanding beyond levels known and observed by participants. However, the approach within this paper is similarly limited by the likelihood that couples respond in socially desirable ways in the interactions with interviewers and between partners. A further reporting issue relevant to both studies is the extent to which participants are able to be introspective about the coping strategies they engage in. Although this issue is relevant to both papers, it may impact the empirical paper to less of an extent due to the dyadic interview methodology which has been proposed to support insight beyond the individual level (Morgan et al., 2013).

These issues reflect wider difficulties within dyadic coping literature which predominantly relies on self-report designs. Within this area some researchers have utilised alternative approaches to examine dyadic coping processes, including observational and physiological designs (Kuhn et al., 2017). However, this research has predominantly focused on how couples respond to laboratory induced stressors, which may have limited ecological validity and applicability to the complexities of coping dyadically with difficulties across reproductive stages. At this point it is unlikely that dyadic coping literature will be able to address these difficulties due to primary need for establishment of a greater level of consistency within the evidence base. However, in the future it may be helpful to consider the contribution of wider approaches, such as observational or mixed methods approaches, to increase validity in findings of coping within couples.

A further limitation within investigations of dyadic coping within reproductive health, is the representativeness of the current evidence base. The systematic review highlighted issues in representation of groups with lower educational attainment, income and in same sex relationships. It highlighted the lack of reporting of ethnicity data across studies creating difficulties in understanding representation of participants from varying ethnic groups. It also highlighted restrictive exclusion criteria raising ethical dilemmas in experiences of groups excluded within research in this area. Similar difficulties can also be found within literature within perinatal mental health with most of the research conducted with heterosexual couples, with higher educational and employment status, and limited reporting of other demographic information such as ethnicity (Garthus-Niegel et al., 2021; Alves et al., 2020). These issues are especially relevant given increased inequalities within reproductive health for minoritised group in identification of perinatal mental health difficulties and barriers to accessing support

from perinatal and infertility services, due to influencing factors such as stigma, distrust of services and practitioner attitudes (Darwin et al., 2022, Kirubarajan et al., 2021). Evidence also suggests that individuals who are members of the LGBTQ+ community, may experience unique challenges within the perinatal period related to issues of hetero and cisnormativity within services and gender dysphoria, putting them at increased risk of stress during pregnancy and depressive symptoms (Miller et al., 2024, Soled et al., 2024). This evidence highlights the greater responsibility for understanding the experiences of coping and barriers to accessing support within these populations.

Despite a strength of this research being the dyadic focus as an expansion on individualistic approaches to coping, this may also be considered limited in scope. Given the complexity of coping with reproductive health difficulties and the found importance of integral factors across multilayered systems, it could be considered that focusing on couples' experiences may be reductionist in understanding this wider complexity. With these restrictions in mind, there are also several groups in which this research provides limited understanding of within these fields. For example, focusing on couples provides limited understanding of how coping is managed within other close relationships. This may be particularly relevant for groups such as single parents experiencing perinatal mental health difficulties who may rely on other relationships for support with coping. Given the shifts in family structures over generations, particularly within westernised cultures, there are also greater variations in the makeup of families (Saggers et al., 2005). This potentially proposes the need for parallel shifts in family related coping research, to provide greater insight into a wider range of experiences.

Clinical Implications

This thesis portfolio proposes many implications for clinical practice and wider models of service delivery. Overall, these findings suggest the importance of moving beyond individualist support to consider the needs of both members of couples faced with mental and physical health difficulties in relation to reproductive experiences. The empirical paper suggests that with the role that partners play in supporting mothers and birthing people to cope with perinatal mental health difficulties, it is important to further formulate coping mechanisms at a couple level. Alternatively with findings of the impact of dyadic coping, it may also be important for practitioners to consider how people who may not have these mechanisms of support (e.g. single mothers or birthing people), engage with support from their surrounding systems.

It may be additionally helpful to take a lifespan approach to formulation, considering the psychosocial conflicts that individuals and couples may be experiencing and how these influence functioning within these transitional periods. This work may also be supported by additionally formulating wider interconnected biopsychosocial factors to better understand experiences of mental health difficulties at the couple and individual level. The systematic review for example proposes the importance of considering the impact of individual and relational factors and how they relate to coping, for example the length of infertility, individual attachment styles within couples, age and the length of time as a couple.

Moving beyond formulation, these findings also propose the need for greater levels of couple focused therapeutic approaches to benefit overall dyadic coping, enhancing the adaptive resources of individuals to cope with infertility and perinatal related stress. Interventions specifically designed to support dyadic coping such as the Couples Coping Enhancement Training (CCET; Bodenmann & Shantinath, 2004) and Coping-Oriented Couple Therapy (Bodenmann et al., 2008) have been developed, providing specific intervention frameworks to support relational coping processes. This also proposes the potential utility of relational therapies such as systemic family therapy, couples therapy or emotion focused therapy to foster positive dyadic coping and support individuals experiencing mental health difficulties to be able to engage with support within their wider systems.

An important finding within the empirical paper was the impact of the structures of services aimed at providing support focused on the mother or birthing person, with limited contact or provision for partners. These findings support changes in the approaches of services, proposing increased communication with partners to enhance their involvement in care approaches, to hear their perspectives and to better assess their mental health needs. This also suggests the role that services could play in recognising and supporting partners who may be struggling to connect with and communicate their own emotional difficulties. Shifting the focus to a systemic level will likely decrease the emphasis on the difficulties of solely the mother or birthing person, facilitating discussions about how couples can cope together with stress and mental health difficulties.

Within maternity settings, it also suggests the importance of reviewing and further developing trauma informed practices and person-centred care and the development of greater links between mental health and maternity service areas, to reduce the potential impact that negative interactions can have within this period. This would likely also support better identification of perinatal mental health difficulties and signposting to specialist services. The empirical paper also highlights how difficult it can be for couples to recognise perinatal mental health difficulties. To support this, it may be important to consider more widely the ways in which couples are able to access information on perinatal mental health difficulties experienced by both mothers and birthing people and partners, to reduce stigma and support couples to reach out for support when needed. One way this could be facilitated could be through a greater focus on mental health information provided within prenatal parenting groups.

The findings from the empirical paper also suggest the potential importance of shared compassion to how couples cope together with perinatal mental health difficulties. It suggests that specialist mental health services support compassion and emotional regulation for service users. Compassion focused approaches (such as Compassion Focused Therapy) are adopted within many mental health services and evidence is emerging to suggest their efficacy in supporting people who experience difficulties with shame and self-criticism (Leaviss & Uttley, 2015), which are commonly experienced within groups experiencing difficulties with reproductive health (Caldwell et al., 2021; Gerhadt et al., 2024; Galhardo et al., 2024; Dadkhah et al., 2021). These therapeutic approaches aim to support people to better engage with compassion towards themselves, towards others and to be able to accept compassion from others (Gilbert, 2020). It may be that supporting people to connect with these different flows of compassion on an individual level would support these compassionate processes at a couple level. It therefore seems important that services consider approaches to supporting the development of compassion to improve coping at an individual level and a systemic level. Through this approach services may also be able to support partners to show compassion towards their own difficulties, which may be a way for them to challenge unhelpful coping strategies (such as protective buffering).

Overall, these findings also support wider changes in service delivery structures within reproductive health. Within the UK there is currently limited publicly funded provision for specialist mental health support for individuals experiencing infertility, despite the found negative psychosocial impacts of these difficulties within these

populations (Braverman et al., 2024). This highlights the importance of development of this support. Within perinatal mental health, although specialist provision has developed over the past decade this support is predominantly focused on the wellbeing of infants and mothers and birthing people to the exclusion of partners (Garthus-Niegel et al., 2021). The NICE guideline states that perinatal care should "take into account and, if appropriate, assess and address the needs of partners, families and carers that might affect a woman with a mental health problem in pregnancy and the postnatal period" (NICE, 2014). However, in reality, this principle is difficult to adhere to given limited resources for support and training in delivering care beyond the individual level and due to the lack of research supporting best practice in expansion of this support to partners and families. Despite these challenges, with growing attention on the need for a wider focus of support and developing research within this area, this may lead to shifts in the way that these difficulties are conceptualised and resulting changes to service delivery structures.

Research Implications and Suggestions for Further Research

Findings from this thesis portfolio suggest the benefit of further research additionally taking a wider systemic approach to examining coping with stress related to reproductive health. It suggests the utility of exploring coping at a dyadic level, with further emphasis on use of dyadic quantitative (e.g. use of APIM) and qualitative (e.g. dyadic interviews) methods to assess the interactions of coping within close relationships and also to assess the efficacy of couple-based interventions in supporting mental health and coping in relation to reproductive stressors. It also proposes the importance of further assessing the biopsychosocial factors associated with dyadic coping within these populations, with a need for higher quality studies (e.g. randomised controlled trials, longitudinal studies) to understand the extent and complexities of these relationships. This proposal reflects the issues found in the assessed quality of studies within the systematic review which were impacted by small sample sizes and nonrandomised convenience sampling approaches, which resulted in limited evidence of causality and directionality of the relationships between psychosocial variables and dyadic coping. Further research is also needed to establish the efficacy, acceptability and methodology of systemic focused therapeutic interventions and how this may enhance dyadic coping for dyads experiencing reproductive related difficulties. Based on the findings of the empirical paper, research could aim to compare the impact of

couple vs individual focused therapeutic interventions within the perinatal period to consider whether it is beneficial for services to expand the focus of interventions.

Building on the found inconsistencies in defining and measuring dyadic coping, it is proposed that a greater level of cohesion is needed within the evidence base. Falconier and Kuhn (2019) provide a helpful conceptual integration of dyadic coping models based on evidence, providing an initial framework of the core principles of dyadic coping and how understandings within this area may be brought together to further research and clinical developments. It may also be helpful for research within this area to focus on use of dyadic specific measures (e.g. (Dyadic Coping Inventory; Bodenmann, 2008; Relationship Focused Coping Scale; Coyne & Smith, 1991; Fiske et al., 1991) rather than measurement using individual coping tools at a dyadic level. This would allow for understanding of shared coping based on developed relational models, beyond that of the interdependence of how individuals within a couple cope with stress.

As previously discussed, it is also important for further research within this area to recognise and address issues of representativeness within research which was highlighted as a difficulty within the examined literature. For example, the systematic review found issues in representation of groups with lower educational attainment, income and in same sex relationships and underreporting of demographic participant information (e.g. income, ethnicity) across studies. Studies within the systematic review also highlighted issues in the transparency of reporting of inclusion and exclusion criteria which impacts on reliability of studies, reflected in the quality assessment scores. Findings within this thesis portfolio highlight the needs for steps to be made towards less restrictive exclusion criteria (with improved reporting of decisions related to exclusion criteria) and greater adaptations to improve representativeness and accessibility of research. This recommendation is based on findings from the systematic review which highlighted issues within included studies of exclusion of couples based on factors such as reported or diagnosed mental health difficulties, physical illness and cognitive impairment. Further research could also focus on more active recruitment of participants from minoritised groups found to be underrepresented in both infertility and perinatal mental health literature, for example those from lower socio-economic, LGBTQ+ and minority ethnic communities. Addressing inequities first within research will support advances within clinical practice to develop support that is more accessible and efficacious across a greater diversity of groups.

Both the systematic review and the empirical paper highlighted the limitations of recruiting participants through services, which limits our understanding of the experiences of dyadic coping for couples who are not accessing services. We know that within the field of infertility research this is an issue due to the barriers for many in accessing fertility services due to financial resources, creating difficulties in understanding coping in couples who may require treatment but may be unable to seek it (Farley & Webb, 2007). Within perinatal research this may also be an issue due to the difficulties couples can experience in recognising perinatal mental health difficulties and barriers within maternity care that may impact on signposting to mental health services. Further research within both fields should strive to recruit couples who are experiencing difficulties in reproductive health but are not accessing support from services, to further understanding their experiences of dyadic coping. This may also provide further information on whether couples cope differentially without this wider professional support.

Conclusion

This portfolio provides evidence for the importance of dyadic coping processes for couples managing stress related to reproductive health. It also proposes the need for shifts in research and clinical practice from individual focuses to consider coping at a wider systemic level. With this shift, it suggests the potential benefit of couple focused intervention to foster greater coping resources and improve outcomes. However, with this suggestion it highlights the need for more research to consider the complexities of expanding support to facilitate development of best practice within these approaches.

This portfolio also suggests the importance of influences of biopsychosocial factors on coping within these populations, with consideration of the impact of developmental experiences and the impact of life stage transitions on reproductive experiences. This portfolio also proposes developments within wider conceptualisation and measurement of dyadic coping, and a greater focus on improving representativeness within research, to support establishment of a higher quality of evidence within the field of reproductive health and coping.

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Appendix A

Author Guidelines for Journal of Social and Personal Relationships

Journal of Social and Personal Relationships (JSPR) is an international and interdisciplinary peer reviewed journal that publishes empirical and theoretical papers on social and personal relationships. It is multidisciplinary in scope, drawing materials from (among others) the fields of communication, family studies, gender and women's studies, human development, psychology (e.g., clinical, counseling, developmental, social), sociology, and social work. The Journal considers the following kinds of article for publication:

- 1. Research Reports, describing new empirical findings.
 - · These consist of (a) Full papers and (b) Short reports
- 2. Review Articles.

Full papers are generally restricted to a maximum of 9,000 words including all elements (title page, abstract, notes, references, tables, figures, etc.). If your submission is qualitative, mixed-methods, three or more studies, a systematic review, or a meta-analysis, it is acceptable to slightly exceed the word count noted above.

Short reports are generally restricted to 3,000 words including all elements (title page, abstract, notes, references, tables, figures, etc.).

- · Short reports will present the same high quality research on social and personal relationships as full papers.
- Short reports will be an appropriate format for a range of submissions, including (but not limited to) original studies, replication studies, and studies consisting of pilot data or smaller sample sizes specific to sample populations that are less commonly studied in the literature.

Review articles are generally restricted to a maximum of 9,000 words including all elements (title page, abstract, notes, references, tables, figures, etc.).

There are two types of review articles that will be considered:

- (a) General reviews that provide a synthesis of an area of social and personal relationships
- (b) Critiques that are focused and provocative reviews that are followed by a number of invited commentaries, with a concluding reply from the main author

We have these word counts as we are reluctant to burden our referees with very long manuscripts. Authors who suspect that their articles will have to be cut anyway should make the required deletions

Authors who suspect that their articles will have to be cut anyway should make the required deletions before submitting to meet these word counts.

The exception to this word count is the text stated previously under Full papers: If your submission is qualitative, mixed-methods, three or more studies, a systematic review, or a meta-analysis, it is acceptable to slightly exceed the word count noted under Full papers.

Formatting your manuscript

Accepted file types

The preferred format for your manuscript is Word. You do not need to follow a template, but please ensure your heading levels are clear, and the sections clearly defined.

The LaTeX files are also accepted. A LaTeX template is available on the Sage Journal Author Gateway.

Your article title, keywords, and abstract all contribute to its position in search engine results, directly affecting the number of people who see your work. For details of what you can do to influence this, visit How to help readers find your article online.

Title

Your manuscript's title should be concise, descriptive, unambiguous, accurate, and reflect the precise contents of the manuscript. A descriptive title that includes the topic of the manuscript makes an article more findable in the major indexing services.

Abstract

Please include an unstructured Abstract between the title and main body of your manuscript that concisely states the purpose of the research, major findings, and conclusions. If your research includes clinical trials, the trial registry name and URL, and registration number must be included at the end of the abstract. Submissions that do not meet this requirement will not be considered.

For clinical trials, the trial registry name and URL, and registration number must be included at the end of the abstract.

Articles can be a maximum of 9,000 words (short reports - 3,000) including all elements such as title page, abstract, notes, references, tables, biographical statements etc.). If your submission is qualitative, mixed-methods, three or more studies, or a meta-analysis, it is acceptable to slightly exceed the word count noted above.

Keywords

Please include a minimum of 5 keywords, listed after the abstract. Keywords should be as specific as possible to the research topic.

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 moved to a new institution since completing the research, the new affiliation can be included in a note
 at the end of the manuscript please indicate this on the title page.
 - All persons eligible for authorship must be included at the time of submission (please see the authorship section for more information).
- Contact information for the corresponding author: name, institutional address, phone, email
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If you are including an Acknowledgements section, this will be published at the end of your article. The Acknowledgments section should include all contributors who do not meet the criteria for authorship. Per ICMJE recommendations, it is best practice to obtain consent from non-author contributors who you are acknowledging in your manuscript.

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To ensure proper anonymization, please include a section with the heading 'Statements and Declarations' on your title page, after the Acknowledgements section [and Author Contributions section if applicable] including each of the sub-headings listed below. If a declaration is not applicable to your submission, you must still include the heading and state 'Not applicable' underneath. Please note that you may be asked to justify why a declaration was not applicable to your submission by the Editorial Office. This information will be added to the end of your published paper.

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Please include your ethics approval statements under this heading, even if you have already included ethics approval information in your methods section. If ethical approval was not required, you need to explicitly state this. You can find information on what to say in your ethical statements as well as example statements on our <u>Publication ethics and research integrity policies page</u>.

All papers reporting studies involving human participants, human data or human tissue must state that the relevant Ethics Committee or Institutional Review Board approved the study, or waived the requirement for approval, providing the full name and institution of the review committee in addition to the approval number. If applicable, please also include this information in the Methods section of your manuscript.

Consent to participate

Please include any participant consent information under this heading and state whether informed consent to participate was written or verbal. If the requirement for informed consent to participate has been waived by the relevant Ethics Committee or Institutional Review Board (i.e. where it has been deemed that consent would be impossible or impracticable to obtain), please state this. If this is not applicable to your manuscript, please state 'Not applicable' in this section. More information and example statements can be found on our <u>Publication ethics and research integrity policies page</u>.

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Submissions containing any data from an individual person (including individual details, images or videos) must include a statement confirming that informed consent for publication was provided by the participant(s) or a legally authorized representative. Non-essential identifying details should be omitted. Please do not submit the participant's actual written informed consent with your article, as this in itself breaches the patient's confidentiality. The Journal requests that you confirm to us, in writing, that you have obtained written informed consent to publish but the written consent itself should be held by the authors/investigators themselves, for example in a patient's hospital record. The confirmatory letter may be uploaded with your submission as a separate file in addition to the statement confirming that consent to publish was obtained within the manuscript text. If this is not applicable to your manuscript, please state 'Not applicable' in this section.

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Appendix B

SWiM Checklist

SWiM is intended to complement and be used as an extension to PRISMA					
SWiM reporting item	Item description	Page in manuscript where item is reported	Other*		
Methods					
1 Grouping studies for synthesis	1a) Provide a description of, and rationale for, the groups used in the synthesis (e.g., groupings of populations, interventions, outcomes, study design)	23			
	1b) Detail and provide rationale for any changes made subsequent to the protocol in the groups used in the synthesis	23			
2 Describe the standardised metric and transformation methods used	Describe the standardised metric for each outcome. Explain why the metric(s) was chosen, and describe any methods used to transform the intervention effects, as reported in the study, to the standardised metric, citing any methodological guidance consulted	23			
3 Describe the synthesis methods	Describe and justify the methods used to synthesise the effects for each outcome when it was not possible to undertake a meta-analysis of effect estimates	23			
4 Criteria used to prioritise results for summary and synthesis	Where applicable, provide the criteria used, with supporting justification, to select the particular studies, or a particular study, for the main synthesis or to draw conclusions from the synthesis (e.g., based on study design, risk of bias assessments, directness in relation to the review question)	23, 30-32			
SWiM reporting item	Item description	Page in manuscript where	Other*		

		item is reported		
5 Investigation of heterogeneity in reported effects	State the method(s) used to examine heterogeneity in reported effects when it was not possible to undertake a meta-analysis of effect estimates and its extensions to investigate heterogeneity	23		
6 Certainty of evidence	Describe the methods used to assess certainty of the synthesis findings	23, 30		
7 Data presentation methods	Describe the graphical and tabular methods used to present the effects (e.g., tables, forest plots, harvest plots). Specify key study characteristics (e.g., study design, risk of bias) used to order the studies, in the text and any tables or graphs, clearly referencing the studies included	24-30		
Results				
8 Reporting results	For each comparison and outcome, provide a description of the synthesised findings, and the certainty of the findings. Describe the result in language that is consistent with the question the synthesis addresses, and indicate which studies contribute to the synthesis	32-38		
Discussion		10.11		
9 Limitations of the synthesis	Report the limitations of the synthesis methods used and/or the groupings used in the synthesis, and how these affect the conclusions that can be drawn in relation to the original review question	40-41		

Appendix C

Example of Data Extraction Table

Area	Data Element	Data Extracted
Background	Author	
	Date published	
	Title	
	Location	
	Source of funding/conflict	
	of interest	
	Theory	
Method	Sampling method	
	Sample size calc?	
	Methods of couples	
	completing measures	
	separately?	
	Definition of infertility	
	Definition of couple	
	Other important exclusion	
	criteria	
	Sample size	
	Nonresponse (%)	
	Study design used	
	Measures used	
	Method of dyadic ax	
	Stats method	
	Controlling for	
	confounding?	
	Variables included in analysis	
	DC outcome, mediator, moderator?	
Sample	Primary infertility	
characteristics	Secondary infertility	
onar acteristics	Age (yrs, M)	
	Ethinicity	
	Education	
	Length of time together as	
	a couple	
	Stage of treatment	
	Length of time infertility	
	Factor of infertility	
	(female, male, both,	
	unknown) %	
	GIIKIIOWIII /0	

Findings (where DC is	Relationship measured	
DV)	(positive DC, negative DC)	
	Effect sizes (d, r)	
	Or B if not ES	
	p value	

Appendix D

QUADS Criteria

QuADS Criteria	0	1	2	3
Theoretical or conceptual underpinning to the research	No mention at all.	General reference to broad theories or concepts that frame the study. e.g. key concepts were identified in the introduction section.	Identification of specific theories or concepts that frame the study and how these informed the work undertaken. e.g. key concepts were identified in the introduction section and applied to the study.	Explicit discussion of the theories or concepts that inform the study, with application of the theory or concept evident through the design, materials and outcomes explored. e.g. key concepts were identified in the introduction section and the application apparent in each element of the study design.
2. Statement of research aim/s	No mention at all.	Reference to what the sought to achieve embedded within the report but no explicit aims statement.	Aims statement made but may only appear in the abstract or be lacking detail.	Explicit and detailed statement of aim/s in the main body of report.
3. Clear description of research setting and target population	No mention at all.	General description of research area but not of the specific research environment e.g. 'in primary care.'	Description of research setting is made but is lacking detail e.g. 'in primary care practices in region [x]'.	Specific description of the research setting and target population of study e.g. 'nurses and doctors from GP practices in [x] part of [x] city in [x] country.'
4. The study design is appropriate to address the stated research aim/s	No research aim/s stated or the design is entirely unsuitable e.g. a Y/N item survey for a study seeking to undertake exploratory work of lived experiences	The study design can only address some aspects of the stated research aim/s e.g. use of focus groups to capture data regarding the frequency and experience of a disease.	The study design can address the stated research aim/s but there is a more suitable alternative that could have been used or used in addition e.g. addition of a qualitative or	The study design selected appears to be the most suitable approach to attempt to answer the stated research aim/s.

			quantitative component could strengthen the design.	
5. Appropriate sampling to address the research aim/s	No mention of the sampling approach.	Evidence of consideration of the sample required e.g. the sample characteristics are described and appear appropriate to address the research aim/s.	Evidence of consideration of sample required to address the aim. e.g. the sample characteristics are described with reference to the aim/s.	Detailed evidence of consideration of the sample required to address the research aim/s. e.g. sample size calculation or discussion of an iterative sampling process with reference to the research aims or the case selected for study.
6. Rationale for choice of data collection tool/s	No mention of rationale for data collection tool used.	Very limited explanation for choice of data collection tool/s. e.g. based on availability of tool.	Basic explanation of rationale for choice of data collection tool/s. e.g. based on use in a prior similar study.	Detailed explanation of rationale for choice of data collection tool/s. e.g. relevance to the study aim/s, codesigned with the target population or assessments of tool quality.
7. The format and content of data collection tool is appropriate to address the stated research aim/s	No research aim/s stated and/or data collection tool not detailed.	Structure and/or content of tool/s suitable to address some aspects of the research aim/s or to address the aim/s superficially e.g. single item response that is very general or an open-response item to capture content which requires probing.	Structure and/or content of tool/s allow for data to be gathered broadly addressing the stated aim/s but could benefit from refinement. e.g. the framing of survey or interview questions are too broad or focused to one element of the research aim/s.	Structure and content of tool/s allow for detailed data to be gathered around all relevant issues required to address the stated research aim/s.
8. Description of data collection procedure	No mention of the data collection procedure.	Basic and brief outline of data collection procedure e.g. 'using a questionnaire distributed to staff'.	States each stage of data collection procedure but with limited detail or states some stages in detail but	Detailed description of each stage of the data collection procedure, including when, where and how

			omits others e.g. the recruitment	data was gathered such that the
			process is mentioned but lacks	procedure could be replicated.
			important details.	
9. Recruitment data provided	No mention of recruitment data.	Minimal and basic recruitment data	Some recruitment data but not a	Complete data allowing for full
		e.g. number of people invited who	complete account e.g. number of	picture of recruitment outcomes
		agreed to take part.	people who were invited and	e.g. number of people approached,
			agreed.	recruited, and who completed with
				attrition data explained where
				relevant.
10. Justification for analytic	No mention of the rationale for the	Very limited justification for choice	Basic justification for choice of	Detailed justification for choice of
method selected	analytic method chosen.	of analytic method selected. e.g.	analytic method selected e.g.	analytic method selected e.g.
		previous use by the research team.	method used in prior similar	relevance to the study aim/s or
			research.	comment around of the strengths of
				the method selected.
11. The method of analysis was	No mention at all.	Method of analysis can only	Method of analysis can address the	Method of analysis selected is the
appropriate to answer the		address the research aim/s	research aim/s but there is a more	most suitable approach to attempt
research aim/s		basically or broadly.	suitable alternative that could have	answer the research aim/s in detail
			been used or used in addition to	e.g. for qualitative interpretative
			offer a stronger analysis.	phenomenological analysis might
				be considered preferable for
				experiences vs. content analysis to
				elicit frequency of occurrence of
				events.
12. Evidence that the research	No mention at all.	Consideration of some the research	Evidence of stakeholder input	Substantial consultation with
stakeholders have been		stakeholders e.g. use of pilot study	informing the research. e.g. use of	stakeholders identifiable in planning
considered in research design or		with target sample but no	pilot study with feedback	of study design and in preliminary
conduct.			influencing the study	work e.g. consultation in the
		ataleshalder in orbinanant in	design/senduster reference to a	annual validation of the second
		stakeholder involvement in	design/conduct or reference to a	conceptualisation of the research, a
		planning stages of study design.	project reference group established	project advisory group or evidence
			to guide the research.	of stakeholder input informing the
40.04	N	N	D:	work.
13. Strengths and limitations	No mention at all.	Very limited mention of strengths	Discussion of some of the key	Thorough discussion of strengths
critically discussed		and limitations with omissions of	strengths and weaknesses of the	and limitations of all aspects of
		many key issues. e.g. one or two	study but not complete. e.g. several	study including design, methods,
		strengths/limitations mentioned with	strengths/limitations explored but	data collection tools, sample &
		limited detail.	with notable omissions or lack of	analytic approach.
			depth of explanation.	

Note: This image is reproduced from: Harrison, R., Jones, B., Gardner, P., & Lawton, R. (2021). Quality assessment with diverse studies (QuADS): an appraisal tool for methodological and reporting quality in systematic reviews of mixed-or multi-method studies. *BMC health services research*, 21, 1-20. https://doi.org/10.1186/s12913-021-06122-y

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Appendix E

HRA Ethical Approval Letter





Trainee Clinical Psychologist
Cambridgeshire and Peterborough Foundation Trust
Addenbrookes Hospital
Hills Road
Cambridge
CB2 0QQ

Email: approvals@hra.nhs.uk HCRW.approvals@wales.nhs.uk

11 April 2024



HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title: The dyadic experiences of couples and co-parents

accessing community perinatal mental health services

IRAS project ID: 333583 Protocol number: N/A

REC reference: 24/EE/0063

Sponsor University of East Anglia

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval

has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, <u>in</u> <u>line with the instructions provided in the "Information to support study set up" section towards</u> the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?

HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see <u>IRAS Help</u> for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?

HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to <u>obtain local agreement</u> in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "<u>After Ethical Review – guidance for sponsors and investigators</u>", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- · Registration of research
- Notifying amendments
- · Notifying the end of the study

The <u>HRA website</u> also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?

Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is 333583. Please quote this on all correspondence.

Yours sincerely,



Approvals Specialist

Appendix F

NSFT Approval Letter



Name: Rebecca Samuel Address: Cambridgeshire and Peterborough NHS Foundation Trust, Elizabeth House, Fulbourn Hospital, Fulbourn, Cambridge CB21 5EF Research and Development
The Knowledge Centre
Hellesdon Hospital
Drayton High Road
Norwich
NR6 5BE

Telephone 01603 421552 E mail: research@nsft.nhs.uk

Date: 3rd July 2024

Chair: Zoë Billingham CBE Chief Executive Officer: Caroline Donovan

Dear Rebecca,

Re: NSFT Letter of Access for research – RD # 24 333583 The dyadic experiences of couples and coparents accessing community perinatal mental health services

As an existing NHS employee you do not require an additional honorary research contract with this NHS organisation. We are satisfied that such checks as are necessary have been carried out by your employer and that the research activities that you will undertake in this NHS organisation are commensurate with the activities you undertake for your employer. This letter confirms your right of access to conduct research through Norfolk and Suffolk NHS Foundation Trust for the purpose and on the terms and conditions set out below. This right of access commences on 3rd July 2024 and ends on 25th September 2025. unless terminated earlier in accordance with the clauses below.

You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from this NHS organisation. Please note that you cannot start the research until the Principal Investigator for the research project has received Confirmation of Capacity and Capability from us giving permission to conduct the project.

You are considered to be a legal visitor to Norfolk and Suffolk NHS Foundation Trust premises. You are not entitled to any form of payment or access to other benefits provided by this organisation to employees and this letter does not give rise to any other relationship between you and this NHS organisation, in particular that of an employee.

While undertaking research through Norfolk and Suffolk NHS Foundation Trust, you will remain accountable to your employer **Cambridgeshire and Peterborough NHS Foundation** Trust but you are required to follow the reasonable instructions of your nominated manager Bonnie Teague, Head of Research, in this NHS organisation or those given on her behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by this NHS organisation in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

You must act in accordance with Norfolk and Suffolk NHS Foundation Trust policies and procedures, which are available to you upon request, and the Research Governance Framework.

Trust HQ: County Hall, Martineau Lane, Norwich, NR1 2DH Tel: 01603 421421 Web: www.nsft.nhs.uk

Appendix G

CPFT Approval Letter





Perinatal Mental Health Team and Perinatal Trauma and Loss Service Cambridgeshire and Peterborough NHS Foundation Trust

14 May 2024

Dear

Research and Development Department

Joint Research Office Box 277 Addenbrooke's Hospital Hills Road Cambridge CB2 OQQ

E-mail: r&d@cpft.nhs.uk

www.cpft.nhs.uk

Local Reference Number: M001148

Study title: The dyadic experiences of couples and co-parents accessing community

perinatal mental health services IRAS project ID: 333583 REC reference: 24/EE/0063 Sponsor: University of East Anglia

Thank you for sending details of the above-named study.

The R&D department has received the HRA Approval letter and reviewed the study documents. The project has been allocated the internal R&D reference number of M001148. Please quote this in all future correspondence regarding this study.

Capacity and capability to conduct this study at Cambridgeshire and Peterborough NHS Foundation Trust is confirmed. Any fully approved amendments that have been submitted whilst the project was in set up have been incorporated into our local confirmation of capacity and capability. Recruitment can commence at this site from the date of this letter. At all times the safety of study participants who are continuing or discontinuing on the study protocol is a priority.

We would like to take this opportunity to remind you of your responsibilities under the terms of the UK Policy Framework for Health and Social Care Research, applicable to Researchers, Chief Investigators, Principal Investigators and Research Sponsors. All research undertaken under this approval must comply with the requirements of the applicable laws and relevant guidelines relating to the conduct of research, including legislation on human tissue and personal data. **We would also like to remind you of the conditions of approval for this study detailed at the end of this letter.**

Please note it is a Department of Health aim to enable fast patient access to research and as such we aim to consent the first patient within 30 days of study start.

The Trust is required to report regularly on its research activity, and we request that you insert the following phrase into the acknowledgement section of any subsequent publication from this study: **This research was supported by the NIHR Cambridge Biomedical Centre (BRC 1215 20014)**. While this study may not have received funding from the Cambridge BRC, it will have been supported by campus infrastructure funded by it. We are very grateful for your help with this.

I wish you every success with this study. We are keen to support good research at Cambridgeshire and Peterborough NHS Foundation Trust and are pleased that you have decided to conduct your project here.

Yours sincerely



Version 1.0 January 2024

Appendix H

Participant Information Sheet

INFORMATION SHEET

The dyadic experiences of couples and co-parents accessing community perinatal mental health services

Lead researchers: Becky Samuel (Trainee Clinical Psychologist) and Kirsty Pegg (Trainee Clinical Psychologist)

Research supervisors: Dr Jo Peterkin (Consultant Clinical Psychologist), Dr Zoe Scott (Clinical Psychologist), Dr Jo Hodgekins (Clinical Associate Professor in Clinical Psychology)

Additional research team members: Ellie Gardner & Lucy Johnson

What is the purpose of this research?

This research is interested in exploring couple's and co-parent's experiences of perinatal mental health challenges. Within this research we would like to talk to you and your partner/co-parent about your experiences of becoming parents, coping with perinatal mental health challenges, your experiences of the support you have received from others and the impact of this on your wellbeing. This research is being conducted through NHS sites within Cambridgeshire, Peterborough, Norfolk and Suffolk and as part of two doctoral qualifications within the University of East Anglia. This research has been approved by an NHS ethics committee (IRAS ID number: 333583).

Previous research has shown the many impacts that experiencing a perinatal mental health difficulty can have on mothers or birthing people and partners/co-parents. It has also shown the importance of support from each other and from surrounding networks (e.g. friends, family, services) in the transition into parenthood. Previous research has focused primarily on individual experiences, leading to a gap in our understanding of couple's experiences. This research has been conducted across a range of clinical settings but is limited in understanding these aspects in people accessing perinatal mental health services within the community. With this research we hope to bridge these gaps to help develop perinatal research and services, to better understand and support people going through these challenges. We also hope this will allow services to be better prepared to support partners and couples together in the future.

Why am I being contacted?

You have been contacted to ask if you would like to take part in this research as you or your partner/co-parent is accessing a community perinatal mental health service. This research would have been discussed with you or your partner/co-parent within an appointment with your clinician and we are now contacting you with further details for you to decide whether you would like to take part.

What would taking part involve?

Interviews will take place with the two of you together, with one researcher. The interview will last approximately 90 minutes. During working hours (9am to 5pm) we are able to offer face-to-face interviews which can be either in clinic, or at your home. Unfortunately we are unable to offer travel expenses if you do choose to attend a face-to-face interview. Outside of working hours (evenings and weekends), or if you would prefer, we are also able to offer interviews online via Microsoft Teams. The interviews will be video and audio recorded for research purposes. For online interviews, we would encourage you, where possible, to have your cameras on. If you have any accessibility needs, please do let us know and we can discuss ways in which we can best support you to participate in the research.

We appreciate how difficult it can be managing a busy life and we will try to work around your schedule and preferences. If at all possible, you might find it easier if childcare can be arranged during the interview to support you to participate. However, we also understand that childcare can be tricky and this may not be possible, and this will not exclude you from taking part. The researchers are happy to discuss this further and think with you the best ways for you to participate as fully as possible.

During the interview, we will ask questions about topics such as your mental wellbeing, relationship, and the support you have received during this period.

Do I have to take part?

No, participation in this research is completely voluntary. Whether you decide to take part or not will not affect your treatment within the perinatal mental health service in any way.

Please also let us know if you have any questions or concerns which would help to inform you to make the decision of whether you would like to take part or not. If you decide to take part you will be asked to sign a consent form.

What are the possible benefits of taking part?

Your contribution will help increase our understanding of what it's like becoming a parent alongside receiving support from a community perinatal mental health team. Our

learning from this research will be used to shape and inform the development of perinatal services as they expand, in order to best support families. Some people also find that discussing their experiences can be therapeutic. A £10 Love2Shop voucher each will also be provided as a thank you for contributing to this research. This will be posted or emailed to you after the study. If you do not receive this within two weeks of completing the study, please let us know.

What are the possible disadvantages and risks of taking part?

Due to the topic of the research, it is possible that some participants may find the interview upsetting. If this is the case, you are able to have a break and/or stop the interview at any point. You are also able to decline to answer any specific questions during the interview. The researchers are trained to support any difficulties that arise during the interview, and can signpost you to relevant sources of support if needed. You can also decide that you no longer want to take part, at which point none of the information that you have given will be used in the research.

What will happen to my information?

We will need to use information from you for this research project. All information will be used in accordance with UK General Data Protection Regulation legislation (2018).

This information will include your name, contact details, age, ethnicity, and perinatal service that you are using. Lead researchers will use this information to do the research or to check your records to make sure that the research is being done properly.

Members of the research team who do not need to know who you are will not be able to see your name or contact details. Your data will have a code number instead. We will keep all information about you safe and secure. Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that you took part in the study.

All interviews will be recorded, either using Microsoft Teams on an encrypted and password protected laptop, or NHS mobile phone. Recordings will be stored securely and accessed only by the researchers. Your personal information will be stored until the end of the study (for a maximum of 12 months) and will be deleted after this point. The recording of the interview will also be stored for a maximum of 12 months to give researchers time to analyse the results. You can ask for your data to be deleted up until 2 weeks after the interview has been conducted by contacting researchers using the details below. Any information you have provided will be deleted. The reason for this time period is because we will have started understanding your interview and

experiences alongside that of other participants. After 2 weeks, if you would prefer, we can ensure we do not use any direct quotes of things you or your partner/co-parent have said. This will not affect your treatment within the perinatal mental health service in any way.

Information given in the interviews will only be shared with researchers and will not be passed on to your clinical team or other individuals outside the research team unless you told us something which resulted in concerns about your safety or welfare, or the safety or welfare of others. If this occurred, we have a duty of care to inform or escalate this to the relevant services and we would inform you where possible before we did this.

The research findings will be published in academic journal articles. Anonymised quotes from the interviews will be used in journal articles and presentations to highlight the meaning of experiences for readers, we will however make every effort possible to ensure that no identifiable information is used. For example, names and geographical locations will be changed for all participants.

Where can you find out more about how your information is used?

You can find out more about how we use your information:

- at www.hra.nhs.uk/information-about-patients/
- by asking one of the research team
- by sending an email to researchsponsor@uea.ac.uk

How do I take part?

To take part please contact either researcher via email using the contact details stated below. You will then be contacted to discuss a convenient time and place to complete the interview.

Contact details:

If you would like to take part or have any questions, please contact:

Becky Samuel

Kirsty Pegg

rebecca.samuel@uea.ac.uk

kirsty.pegg@uea.ac.uk

If you have any comments or complaints about the study please contact Dr Sian Coker (Programme Director): sian.coker@uea.ac.uk

Thank you for taking the time to read this information sheet.

Plea

Appendix I

Consent Form

CONSENT FORM

The dyadic experiences of couples and co-parents accessing community perinatal mental health services

Name of Researchers: Becky Samuel (Trainee Clinical Psychologist) and Kirsty Pegg (Trainee					
Clinical Psychologist)					
Name of Supervisors: Dr Joanne Peterkin (Consultant Clinical Psychologist), Dr Zoe Scott					
(Clinical Psychologist), Dr Jo Ho	odgekins (Clinical Associate Profess	or in Clinical Psychol	og `		
	d the information sheet dated 26/03/ the opportunity to consider the infor se answered satisfactorily.	,			
interview at any time without	articipation is voluntary and that I am giving any reason, and without our my partner/co-parent would like to stopped.	medical care or			
weeks after the interview, wi or legal rights being affected	also able to withdraw my data from t thout giving any reason, and withou . I also understand that if my partne ny data will also be removed from thi	t our medical care r/co-parent would			
for dissemination of the resu publications). All names and	rchers will use anonymised quotes f Its of this study (e.g. presentations, geographical locations will be chan ake every effort possible that partici	conferences, ged in any quote			
	formation held and maintained by th d in accordance with UK General Da	-			
6. I agree to take part in the	ne above study.				
Participant name:	Date:	Signature:			

Date:

Name of Researcher:

Signature:

Appendix J

Demographic Sheet

DEMOGRAPHIC INFORMATION SHEET

The dyadic experiences of couples and co-parents accessing community perinatal mental health services

Researchers: Becky Samuel (Trainee Clinical Psychologist) and Kirsty Pegg (Trainee Clinical Psychologist) Research supervisors: Dr Jo Peterkin (Consultant Clinical Psychologist), Dr Zoe Scott (Clinical Psychologist), Dr Jo Hodgekins (Clinical Associate Professor in Clinical Psychology) Sexuality: [] Heterosexual [] Bisexual [] Pansexual [] Gay man [] Gay Woman / Lesbian [] Prefer to self-describe [] Prefer not to say Age: 18 to 24 25 to 34 35 to 44 45 to 54 55 and over Ethnicity: _ Number of children: _____ Age of youngest child: 0-3 months 4-6 months 7-9 months 10-12 months Type of partnership: In a relationship

Co-parenting

Appendix K

Topic Guide

TOPIC GUIDE:

General prompts:

- Can you tell me a bit more about that?
- Was your experience the same or did you experience this differently?
- Can you think of an example of that?
 - 1. Can you tell me about your transition into parenthood?
 - a. As individuals? As a couple?
 - 2. How did your expectations compare to the reality of this experience?
 - a. Were there differences or similarities in your expectations? If so, why might this have been?
 - b. How did you navigate this?
 - 3. Did your experience of perinatal mental health challenges impact on the transition into parenthood, and if so, how?
 - a. What was the impact on your experience of parenting?
 - 4. If any, what were the changes in your relationship as you transitioned into parenthood?
 - a. How did this impact the two of you? (Your mental health? Your relationship?)
 - 5. Did you experience any challenges or hurdles as a couple in the transition to becoming parents?
 - a. Was there anything that helped manage these challenges or hurdles?
 - 6. How do you support each other with the practical side of parenting and looking after your baby?
 - a. What are your experiences of giving/receiving this support?
 - b. Is there anything that has made giving/receiving this support easier? Were there any barriers?
 - c. Do you think that this has been impacted by your experiences of perinatal mental health difficulties? If so, in what ways?
 - 7. How have you found managing daily tasks and solving problems together during this time?

- a. Have there been any changes in who takes on different tasks and responsibilities? If so, how do you think the presence of mental health difficulties has influenced this?
- 8. What have your experiences been of supporting each other to cope with both of your mental wellbeing?
 - a. What are your experiences of receiving this support? (To each person)
 - b. How have you found talking to each other about these challenges?
 - c. Have the ways in which you support each other changed over time?
- 9. As a couple/co-parent, what support have your received from others e.g. friends, family, services?
 - a. How has this impacted both of your mental wellbeing/health?
 - b. Would you have liked this support to have been different, and if so in what way?
- 10. Is there anything I have missed or anything else you would like to share about your experiences?

Appendix L

Debrief Sheet

The dyadic experiences of couples and co-parents accessing community perinatal mental health services

Thank you very much for taking part in this research project.

You will be sent a £10 voucher each as a thank you for participating. If you have any issues or do not receive this voucher within 2 weeks, please contact the researchers using the details below.

If you would no longer like to take part in the research, you can withdraw your data up to 2 weeks from today by contacting the researchers using the details below. Any information you have provided will be deleted. The reason for this time period is because we will have started understanding your interview and experiences alongside that of other participants. After two weeks, if you would prefer, we can ensure we do not use any direct quotes of things you or your partner/co-parent have said. This will not affect your treatment within the perinatal mental health service in any way.

This research aims to build on our understanding of couple's/co-parent's experiences of perinatal mental health difficulties. Once we have conducted all of the interviews, we will draw themes of experience from the data. This research will likely be completed in 2025. We will be in touch with the research findings if you have opted in.

If any of the topics discussed in this interview were upsetting and you feel you need someone to talk to, please contact your care co-ordinator/perinatal team who will be able to offer support or additional signposting.

Alternatively, you may find one of the below services beneficial for further support:

First Response Service:

T: 111 option 2

In an emergency please call 999 or present to A&E.

Samaritans:

Offering 1:1 listening support for anyone.

T: 116 123 (Free, open 24/7, 365 days)

E: jo@samaritans.org Text: SHOUT to 85258

Relate:

Offering counselling for relationships.

W: relate.org.uk (please see the general website for your local centre)

Thank you again for participating, we really appreciate hearing your experiences.

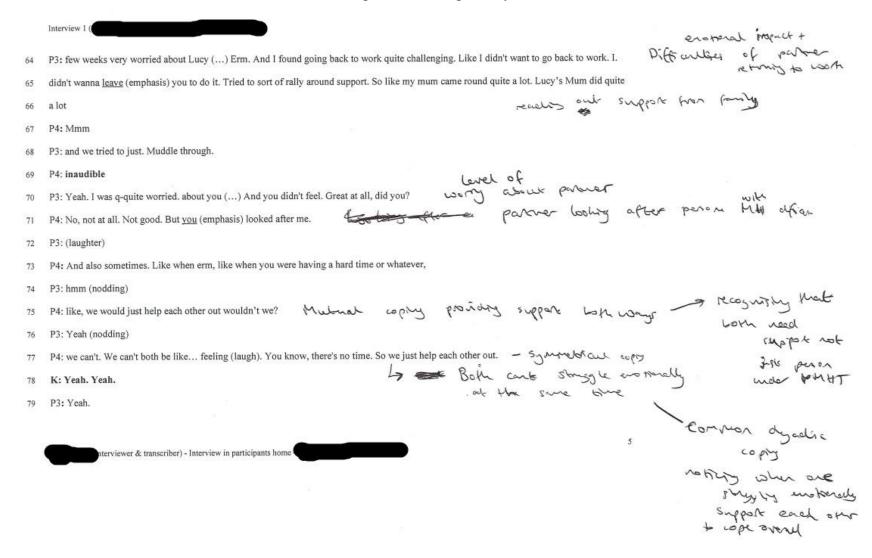
Contact details:

Becky Samuel rebecca.samuel@uea.ac.uk

Kirsty Pegg kirsty.pegg@uea.ac.uk If you have any comments or complaints about the study please contact Dr Sian Coker (Programme Director): sian.coker@uea.ac.uk

Appendix M

Example of Transcript Analysis



96	P4: Mmm (nodding) Self conical guilt
97	P3: and we finally got the thing that we were working towards. And now it's hard I shouldn't be feeling like it's hard. I should be really grateful
98	(emphasis) P4: Mmm.
99	P4: Mmm.
100	K: Yeah.
101	P3: I don't know whether you felt a similar
102	Di Verbairelle
103	P3: sort of feelings. Erm ()
104	P4: Yeah
105	P3: I also felt a bit rubbish (emphasis) that I was finding it hard, like in myself like. The tasks themselves are simple.
106	K: Ah hmm
107	P3: They're like it's not () Challenging (emphasis) in that way, like, but even like learning how to sterilise something, no one teaches you that
108	and you just like learning it. orand bary related bary
109	P4: You're just learning on job (laughing). Aren't you.
110	P3: Yeah

Appendix N

Example of Coding Table

Code	Whose	Agreements/di	Areas of	Comments
	narrative	sagreements	dyadic coping	
		in experience	aligns with	
Feeling lied to	MBP	Slight		Societal impact and
by others		disagreement		expectations of
about		– partner view		having a baby -
experiences of		that maybe		idealisation
having a baby		people do talk		
		but maybe		
		they don't		
		listen		
Conflict with	Partner	Agreement		
professionals				
to gain				
support/treat				
ment				
Providing	PMH	Agreement	Common	
mutual			dyadic coping	
support for				
each other				
when each				
struggling				
Both members	PMH	Agreement	Common	To support each
of the couple			dyadic coping	other dyadically as
can't struggle				when one struggling
emotionally at				emotionally the
the same time				other needs to
				provide support so
				that they can cope
				together with
				demands of
				parenting

Appendix O

Extract from Reflective Diary (Diary Entry Recorded Following Interview 3)

Need to consider the impact of having another child on transition into parenthood this time and expectations. Also differentially impacts on interaction between perinatal mental health difficulties and this experience. This experience creates different challenges for the couple relationship and how they cope together with experiences. Likely that couples/co-parents where this is their first pregnancy will have different experiences.

Reflected on the impact of being immigrants to this country and the impact of this for this couple on their experiences of wider support networks as a couple and what they mean to each other. Also, likely cultural impacts and differences in raising children and potentially the meaning of mental health difficulties and accessing support related to this.

Reflected that I experienced some challenges around managing the interview process and focusing the conversation on the topic guide questions. Consideration for further interviews of how much to interrupt to return to structure of topic guide balanced with level of interaction between couple and less interviewer involvement.

Reflected that dyadic design leads to more of an unstructured interview process. Sense within this interview that couple contributing equally considering how this reflects how they support each other in reality and their relationship dynamics. Felt that systemic questioning set the precedent well that I wanted to hear from both partners equally.

Realisation of how present I need to be as an interviewer to follow and manage dyadic interviews. Interesting that the couple apologised for diverting from questions which may suggest that they felt that the interview was unstructured.

Thinking about a potential issue with not switching up the order of interview questions – feel that the questions are pretty blended but harder as the interview goes on to keep to the interview questions considering what the impact might be of covering both research topics.