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The Role of Psychological Flexibility in Birth Experience for First-Time

Mothers: A Mixed Methods Study

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Portfolio Abstract

Background: Childbirth is a momentous event for a woman where they can feel empowered and transformed. Negative experiences of birth are linked to development of perinatal mental health difficulties including postnatal depression and birth trauma (Ayers et al., 2016; Bell & Anderson, 2016). Birth can be experienced as negative when birth expectations are not met (Goodman et al., 2004; Hauck et al., 2007). Psychological Flexibility (PF) is a concept adopted within the Acceptance and Commitment Therapy (ACT) model (Hayes et al., 1999). PF could illustrate how a woman adapts to situational demands of birth, shifts perspective or expectations and balances competing wishes and values that encompass expectations of birth. This study aimed to 1) explore the relationships between PF, birth satisfaction and birth expectations, 2) explore whether women report PF-related skills as playing a role in sense-making of birth, and 3) explore what aspects women describe as helping and/or hindering sense-making of birth.

Methods: A sequential explanatory design following two phase, mixed methods design was used. Phase One involved collection of data pre- and post-birth (N = 68) to explore whether level of PF moderated appraisal of birth. Phase Two involved semi-structured interviews (N = 11) exploring what aspects played a role in sense-making of birth to further explain Phase One findings. Phase One analysis involved nonparametric correlations, independent samples t-test and a

Content Analysis. Phase Two involved a deductive-inductive Thematic Analysis (TA).

Results: For Phase One, nonparametric correlations indicated no significant relationship between PF and Birth Satisfaction or Birth Expectations. A significant negative relationship was found between Birth Satisfaction and Birth Expectations ($p < .001$). An independent samples t-test indicated a significant relationship between Birth Satisfaction and Birth Type ($p < .001$). A Content Analysis indicated the most common reasons for unmet birth expectations: intervention needed, length of labour and medical complications.

For Phase Two, the deductive TA considered two themes: Psychological Flexibility and Psychological Rigidity. The theme Psychological Flexibility captured aspects that resembled the six core therapeutic processes of PF (Hayes et al., 2006). The theme Psychological Rigidity captured aspects resembling the six core pathological processes of psychological rigidity (Hayes et al., 2006).

The inductive TA constructed five themes: Support & Care, Choice/Control, Personal Processes, Preparedness and Birth Processes. The first theme Support & Care involved four subthemes: communication, influence of others, healthcare and talking. The third theme Personal Processes involved three subthemes: mindset, attributes and internal processes. The fifth theme Birth Processes involved two subthemes: labour and medical challenges.

Discussion: Current conceptualisations of birth satisfaction are potentially not capturing important nuances. Discrepancies between Phase One and Phase Two could be explained by interviews enabling reflective capacity. PF appears to play an important role in sense-making of birth but sense-making also involves other complex processes. Findings could suggest changes to maternity care e.g., antenatal education and providing opportunities for sense-making. Future research could explore the function of acceptance in birth satisfaction and its relationship with perinatal mental health.

Statement of Contribution

Project design: Harriet Ball, with help from Dr Rachel Sabin-Farrell and Dr Danielle De Boos

Ethical approval: Harriet Ball, supervised by Dr Rachel Sabin-Farrell and Dr Danielle De Boos, and with help from Dr Michelle Tolfrey

Literature review: Harriet Ball, supervised by Dr Rachel Sabin-Farrell and Dr Danielle De Boos

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Transcription: Transcript Divas Ltd.

Data analysis: Harriet Ball with help from Professor Thomas Schröder, Dr Rachel Sabin-Farrell and Dr Danielle De Boos

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Systematic Literature Review: Harriet Ball, supervised by Dr Rachel Sabin-Farrell and Dr Danielle De Boos

Small Scale Research Project: Harriet Ball

SYSTEMATIC LITERATURE REVIEW

Women's explanations for why they had a negative childbirth experience: a meta-ethnography.

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Abstract

Aim. To describe what views and explanations are provided by women when describing their negative birth experience.

Data Sources. Articles were searched for in MEDLINE, PsycINFO, Scopus, CINAHL and PubMed in August 2019. This identified 14 papers for review.

Review Methods. A quality appraisal was conducted followed by a meta-ethnographic synthesis.

Results. Six third-order construct themes were identified: 1) Inadequate healthcare providers, 2) Lack of control, 3) Physically challenging, 4) Lack of information, 5) Fear, and, 6) Denial of companion. The line of argument synthesis identified the fragility of birth as being an important phenomenon that emphasizes that the trust and sense of security that a woman needs in order to feel safe and protected during birth can be instantly shattered and this can create an opening for harmful and damaging perceptions to take shape.

Conclusions. Healthcare professionals should adopt a woman-centered approach to childbirth that considers the physical and emotional needs of the mother throughout childbirth where she can feel empowered. A huge cultural shift is needed in order to improve maternal care for women globally. This shift should result in a perception of woman being at the top of the hierarchy at all stages of perinatal care as well as all healthcare professionals understanding that she should be at the centre of decision-making at all times.

Impact. Up to 60% of women have had a negative birth experience. This study has highlighted the need for compassionate care for women during birth that involves active shared decision-making and attention to emotional needs. This research emphasises the need for improved maternal healthcare globally through funding, research and education. This will help to encourage service transformation to deliver better care and improve birth experiences for women.

Women's explanations for why they had a negative childbirth experience: a meta-ethnography.

INTRODUCTION

Childbirth is a momentous event for a woman where she can feel empowered and transformed (Halldorsdottir & Karlsdottir, 1996; Thomson & Downe, 2010). Satisfaction with childbirth is crucial for a woman's wellbeing and her relationships (Ayers, Eagle, & Waring, 2006). Having a negative experience of childbirth is linked to the development of post-natal depression (Bell & Andersson, 2016), post-traumatic stress disorder (Ayers, Bond, Bertullies, & Wijma, 2016) and difficulties with the mother-infant bond (Ayers, Eagle & Waring, 2006).

It is thought that up to 60% of women have had a negative birth experience (Svanberg, 2019), and around 4.6-16.8% experience post-traumatic stress disorder related to their childbirth experience (Dekel, Stuebe, & Dishy, 2017). Due to the impact and prevalence of negative childbirth experience there are calls for research to examine ways we can increase satisfaction with childbirth to improve perinatal outcomes (Afshar, Mei, Gregory, Kilpatrick, & Esakoff, 2018; Bell & Andersson, 2016; Downe, Finlayson, Oladapo, Bonet, & Gulmezoglu, 2018). In order to do this it is crucial to explore what women view as the explanations for what makes childbirth a negative experience.

Such research has the potential to improve clinical practice within a midwifery, obstetrician and a perinatal psychology context. This fits with the United Kingdom's National Health Service Five Year Forward View for Mental Health detailing the need to improve the experience of care received by women in the perinatal period (England, 2017). Campaigns such as the 'Make Birth Better' campaign have highlighted the need for such research and have been initiated to improve birth experience for women and raise awareness of the importance of birth experience (Svanberg, 2017). It also fits within an international context as the World Health Organization (WHO) identifies improving maternal health as one of their key priorities (World Health Organization, n.d.). This follows the publication of data showing that in 2015 303,000 women died in the perinatal period and that almost all of these deaths were preventable. In particular, WHO detail that nearly half of these deaths occurred in Sub-Saharan Africa (World Health Organization, n.d.). These deaths are the result of poor maternity healthcare provisions, which means many more women are experiencing negative and traumatic childbirths. The large disparities in maternal healthcare show the need for further research into our understanding of childbirth experiences and of great importance is the need to hear the perspectives of women themselves.

BACKGROUND

Whilst over half of women are experiencing their births as negative, it is important to recognise that not all of these women perceive their birth as having been 'traumatic'. Post-partum post-traumatic stress disorder (PP-PTSD) is a type of post-traumatic stress disorder (PTSD) specific to the perinatal period (Garthus-Niegel, von Soest, Vollrath, & Eberhard-Gran, 2013). It therefore involves symptoms including re-experiencing, avoidance, negative thoughts and mood, and hyper-arousal (Ayers, Wright, & Thornton, 2018). PP-PTSD occurs following a traumatic childbirth and leads to difficulties such as recurring nightmares of childbirth, disrupted relationships and detachment from the infant (Elmir, Schmied, Wilkes, & Jackson, 2010; Svanberg, 2019). A negative birth experience does not necessarily constitute experiencing a traumatic birth, nevertheless, can still negatively affect a woman's self-esteem and inhibit her chances of feeling a sense of accomplishment following birth (Simkin, 1991, 1992). Subsequently, this can lead to perinatal mental health problems such as depression and anxiety (Bell & Andersson, 2016) as well as fear of childbirth (Nilsson, Bondas, & Lundgren, 2010) and reluctance to have further children (Shorey, Yang, & Ang, 2018).

Much research over the past ten years has focused on traumatic birth, including reporting on prevalence and risk factors (Creedy, Shochet, & Horsfall, 2000; Dekel et al., 2017; Dikmen-Yildiz, Ayers, & Phillips, 2017; Furuta, Sandall, Cooper, & Bick, 2016; Grekin & O'Hara, 2014) and the impact of traumatic birth (Ionio & Di Blasio, 2014; Michels, Kruske, & Thompson, 2013; Zaers, Waschke, & Ehlert, 2008). Elmir et al (2010) conducted a systematic review exploring women's perceptions of a traumatic birth. Their research highlighted important themes including 'feeling invisible and out of control' and 'feeling trapped'. Much of this research is focused on an imperative clinical perspective of the childbirth experience. Therefore, in the current study it was decided to focus on studies looking at 'negative' childbirth and not 'traumatic'.

A systematic review was conducted that looked at the factors affecting a negative experience of childbirth (Hosseini Tabaghdehi et al., 2019). This study reviewed mostly quantitative papers therefore their results yielded pre-operationalized factors affecting childbirth experience. This provided some insight into what made birth negative, however, it potentially omitted other important aspects of birth experience outside of those pre-operationalized factors. This points out the advantage of exploring negative childbirth using a qualitative methodology, as quantitative research cannot explore the explanatory mechanisms of why those factors lead to negative birth experience. A review focusing on qualitative studies exploring women's' perceptions of a negative birth experience would illuminate the mechanisms that underpin why that experience led to a negative perception of birth.

Research into negative childbirth experiences has focused on clinical populations e.g., those who meet diagnostic criteria for PP-PTSD (Hosseini Tabaghdehi et al., 2019). Although a negative childbirth can result in clinically significant difficulties, research focusing on improving the childbirth experience and preventing a clinical outcome such as PP-PTSD has been neglected. The present review sought to discover what women explanations are for why they had perceived their experience of childbirth as negative.

THE REVIEW

Aims

To describe what views and explanations are provided by women when describing their negative birth experience.

Design

The review was guided by the seven-phased approach to meta-ethnography (Noblit & Hare, 1988). A critical realist epistemological position was adopted to approach this review, which assumes that our knowledge of reality can be altered by the beliefs and experiences of those involved (Maxwell & Mittapalli, 2007). As such, it is important to consider the context from which the phenomenon of interest is derived, including the reviewer's own context. The first author (H.B) is a trainee clinical psychologist who has not experienced childbirth and who has an interest in perinatal mental health stemming from feminist values. The author considered how their views of childbirth could shape their interpretation of the findings. To reduce any interpretation biases H.B. kept a reflective diary throughout to monitor how their views were being shaped and prevent these from shaping the findings of the review.

Search methods

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement for reporting systematic reviews was followed (Moher, Liberati, Tetzlaff, Altman, & Group, 2009). The following inclusion/exclusion criteria were applied:

Inclusion criteria:

- Published in English
- Published in peer-reviewed journals
- Published between January 1995 to August 2019
- Focused on women's views and/or experiences of their birth
- Reported data on women's views and/or experiences of what made their birth negative

- Reported qualitative data on women’s views/experiences of their birth

Exclusion criteria:

- Focused only on positive aspects of birth
- Used a clinical sample

Studies that included mixed views/experiences were included if the paper clearly stated which views were negative, so that the authors could gather data specifically on negative experiences. Clinical samples were excluded as individuals from a clinical population have been shown to have an increased fear of childbirth (Badaoui, Kassm, & Naja, 2019; Rouhe, Salmela-Aro, Gissler, Halmesmaki, & Saisto, 2011; Turner et al., 2008), and this is linked with having a more negative experience of childbirth (Capik & Durmaz, 2018; Junge et al., 2018), which could lead to bias in the results.

Articles were searched for in MEDLINE, PsycINFO, Scopus, CINAHL and PubMed in August 2019. These databases were selected, as they were deemed relevant to the topic of the present review. The search terms used for MEDLINE are presented in Table 1. Search terms were adapted for suitability of each database to include database-specific thesaurus terms.

Table 1. Search terms used in MEDLINE.

Concept relating to inclusion criteria	Search terms used	Medical heading (MeSH)	Subject heading (MeSH)
Birth	“birth” or “labo#r” or “childbirth” or “delivery”	Parturition	
Negative experiences	negative experience# or bad experience# or adverse experience# or “dissatisf#”	None identified	
Qualitative research	“qualitative”		Qualitative Research

Synthesis

The synthesis was guided by the seven phases developed by Noblit and Hare (1988). The first author (H.B) identified relevant studies, read the studies and extracted the data (phases one, two and three). During these phases it was decided which first-order data were not relevant. For example, data that was solely about the positive experiences was considered not relevant and was excluded. Next it was determined how the studies were related (phase four) and they were then translated into one another (phase five). H.B. grouped together the common themes in the data and separated those that that were dissimilar from one another. The themes grouped

together were explored further by re-reading first-order constructs to enable a better understanding of what the women perceived as negative (reciprocal translation). This provided information on how to translate the common themes into one another and establish underlying themes. These translated themes were discussed with the wider research team and some themes were re-named when agreed that a name was better suited to that theme. Refutational translation was conducted to form an agreement on how to understand the conflicting and dissimilar themes. On exploration of the first-order data that informed these themes it was apparent that many fit within an existing third-order theme. For instance, a theme labeled 'cocoon of compassionate care' in Hastings-Tolsma et al. (2017) was about distrust of the healthcare providers and this fit within an existing theme. Where themes did not fit within an existing third-order theme a new way of understanding these was developed.

Themes were identified as being first-order constructs (the individual's own accounts) or second-order constructs (the author's interpretations of those accounts) (Britten et al., 2002). First-order were weighted more heavily throughout the synthesis to ensure that views of the women were captured most accurately. As part of phase six, the line of argument was developed from the identification of third-order constructs that were based upon the first-order and subsequent second-order constructs. These third-order constructs were formed through identification of themes and concepts that were apparent throughout the articles that built the ideas from the articles into one another forming one written synthesis (phase seven).

RESULTS

Search outcomes

The search strategy identified 1641 articles. The titles of these articles were screened and irrelevant and duplicated articles were excluded leaving 38 articles. The abstracts were then reviewed, excluding a further 20 irrelevant articles. This resulted in 18 articles that H.B. accessed the full texts of to ensure they were relevant to the review. One article was then excluded due to not being published in a peer-reviewed journal and a further three articles were excluded; one due to not having a focus of negative experiences of childbirth and the others for using a clinical sample e.g., participants met diagnostic criteria for a mental health difficulty such as depression or PTSD. This left 14 articles included in the final review (Figure 1 outlines the PRISMA diagram).

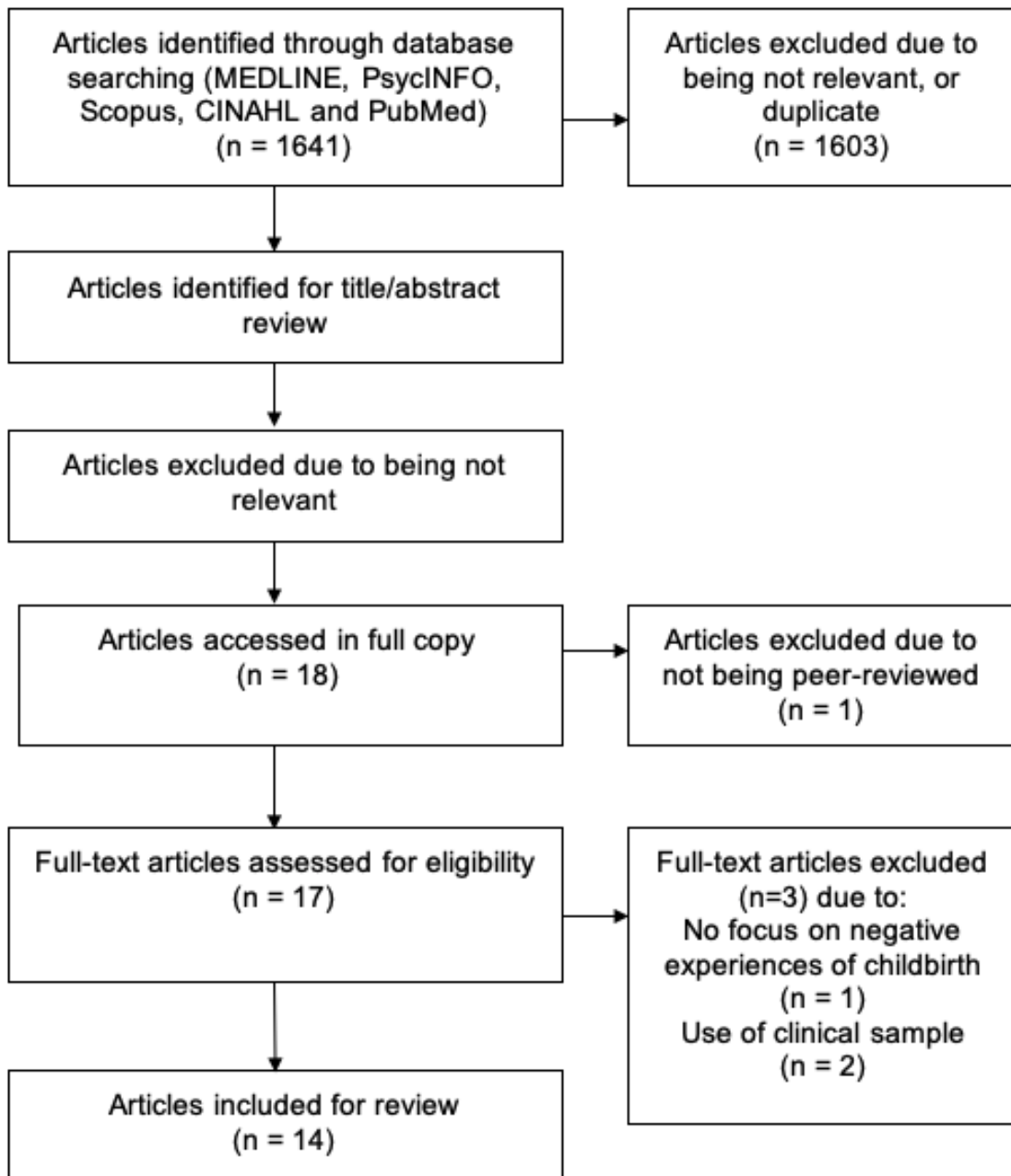


Figure 1. PRISMA Diagram.

Quality appraisal

An expanded version of The Critical Appraisal Skills Programme (CASP; Bailie & Tickle, 2015) tool was used to assess the quality of the selected studies. This tool used 18 quality criteria that scored each paper from 0-2 (0=not met, 1=partially met or

unclear and 2=definitely met) and each paper was given an overall score out of 36 (Table 2). This review included all studies in the analysis, despite their quality. It is understood that a study can generate useful findings even when assessed as having poor quality (Sandelowski, Docherty, & Emden, 1997). The present review has acknowledged the quality of each paper throughout the analysis to provide context and a critical stance to the overall findings of this review.

Table 2. Quality appraisal.

Quality criteria	Study													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. A clear statement of aims	2	2	2	1	2	2	2	2	0	2	2	2	2	2
2. Qualitative methodology appropriate	2	2	2	1	2	1	2	2	2	2	2	1	2	2
3. Research design appropriate to meet aims	2	2	2	1	2	1	2	2	2	2	2	2	2	2
4. Recruitment strategy explained	2	0	2	2	2	2	2	2	1	2	2	2	2	2
5. Recruitment strategy appropriate to meet aims	2	1	1	1	2	2	2	2	1	2	2	2	2	2
6. Clear how data were collected (e.g. interviews, focus groups, etc.)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7. Form of data clear (e.g. tape recordings, video, etc.)	2	2	2	2	2	2	2	2	2	2	2	2	0	2
8. Discussion of data saturation	2	2	0	0	2	0	0	2	0	0	2	0	2	0
9. Critical examination of researcher role and potential for bias	0	2	0	0	2	0	2	0	0	0	2	0	1	2
10. Sufficient details to assess ethical standards	0	0	0	0	0	0	2	2	0	2	2	0	2	2
11. Ethics committee approval mentioned	2	0	0	2	2	2	2	2	0	2	2	0	2	0
12. In depth description of analysis	2	1	2	2	2	2	2	2	1	2	2	2	2	2
13. Sufficient evidence presented to support themes	2	2	2	1	2	2	2	2	2	2	2	2	2	2
14. Contradictory data taken into account	2	2	0	0	1	1	2	2	2	1	2	2	0	0
15. Clear statement of findings	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16. Discussion of credibility of findings (e.g. triangulation, more than one analyst, etc.)	0	2	0	0	2	2	2	2	0	0	2	0	0	2
17. Clear contribution to existing knowledge or understanding	0	2	2	0	2	2	2	1	1	1	2	2	2	0
18. New areas of research identified	1	2	0	0	2	0	2	0	2	0	1	0	0	0
Total	27	28	21	17	33	26	34	31	20	26	35	23	27	26

Data abstraction

A total of 14 studies were included in the review (Table 3 outlines the studies characteristics and the assigned number for each study). The majority of the studies conducted individual interviews with the mothers except for three (4, 6 and 12) that used free-text comments from a questionnaire and one (11) that used individual interviews and focus groups. Five of the studies (2, 7, 8, 13 and 14) focused specifically on the experiences of a cesarean section birth, one study (1) focused on vaginal birth and the remaining studies did not specify a type of birth. The most commonly used method of analysis was thematic analysis used by seven of the studies (1, 3, 5, 6, 8, 11, 13).

Author/location	Methodology	Aims	Method of analysis	Sample	Type of birth	Central themes	Quality score
1. Aktas & Aydin (2019), Turkey	Qualitative – semi-structured in-depth interview	Evaluate factors that cause a negative birth experience in vaginal birth assisted by midwives.	Thematic analysis	11 women (21-35 years), 5 primipara, 6 multiparous	Vaginal birth delivered by a midwife	1. Challenges/difficulties encountered 2. Embarrassment/privacy 3. Inadequate communication 4. Inadequate hospital facilities	27
2. Burcher, Cheyney, Li, Hushmendi & Kiley (2016), USA	Qualitative – open-ended semi-structured interview	Identify factors contributing to cesarean regret through exploring women's narratives of their unplanned cesareans.	Inductive coding to emerge codes and themes (not specified)	14 women (mean age = 30), 5 primiparous, 9 multiparous	Unplanned cesarean	1. Poor communication 2. Fear of the operating room 3. Distrust of the medical team 4. Loss of control	28
3. Chadwick, Cooper & Harries (2013), South Africa	Qualitative, narrative – unstructured interview	Explore women's perspective of the factors associated with a negative birth experience in public health settings.	Thematic narrative analysis	33 women (18-42 years), 18 primiparous, 13 multiparous	Vaginal (n=25) and cesarean (n=8) births delivered in South African public health services	1. Negative interpersonal relations with the caregiver 2. Lack of information 3. Neglect and abandonment 4. The absence of a labour companion	21

Author/location	Methodology	Aims	Method of analysis	Sample	Type of birth	Central themes	Quality score
4. Fowles (1998), USA	Longitudinal mixed methods – qualitative aspect formed from an open-ended question at the end of a set of questionnaires	Find discrepancies between expectations of birth and actual birth experiences from the perspective of the woman.	Constant comparison method	77 women (18-35 years)	Majority vaginal deliveries (79%)	1. Lack of control 2. Lack of knowledge 3. Negative perceptions of health caregivers	17
5. Hastings-Tolsma, Nolte & Temane (2017), South Africa	Qualitative – semi-structure in-depth interviews	Explore and describe women’s experiences of birth delivered by midwives and obstetrical physicians in various settings in South Africa.	Thematic analysis	12 women (18-32 years), most multiparous (93%)	9 vaginal birth and 3 cesarean birth	1. Cocoon of compassionate care 2. Personal regard for shared decision-making 3. Beliefs about birth 4. Protection	33
6. Henriksen, Grimsrud, Schei & Lukasse (2017), Norway	Mixed methods – qualitative aspect formed from free-text comments	Explored factors associated with a negative childbirth experience from the perspective of the woman.	Thematic analysis	103 women (no specific from this sub-sample of women reported)	Not reported for this sub-sample	1. Complications for mother, child or both 2. Not being seen or heard 3. Experience of pain and loss of control	26
7. Husby, Duinen & Aune (2019), Sierra Leone	Qualitative – semi-structured interviews	Explore women’s experiences of caesarean section and their	Systematic text condensation	16 women (over 18 years) with varying parity (0-6)	15 emergency cesarean and one	1. Experience of fear 2. Lack of control 3. Inability to return	34

Author/location	Methodology	Aims	Method of analysis	Sample	Type of birth	Central themes	Quality score
8. Lewis et al (2014), Australia	Mixed methods – qualitative aspect formed from semi-structure telephone interview	pregnancy, birth and post-partum care received in Sierra Leone. Explore women's perception of their preparation for and actual experiences of planned cesarean section.	Thematic analysis	38 women, 82% experiencing a repeat cesarean	planned cesarean Planned cesarean section	to normal activities 4. Pain 5. Interaction with health caregivers 1. Dissatisfaction with care 2. Lack of control	31
9. Mackey (1998), USA	Exploratory field study – open-ended interview guide	Identify how women describe and evaluate their labor and delivery experiences and identify the factors related to their responses.	Not specified – involved reading the data and creating coding categories which were then applied to the data	60 women (21-37 years)	Spontaneous deliveries	1. Pain 2. Pushing 3. Labor progress	20
10. Mukamurigo, Dencker, Ntaganira & Berg (2017), Rwanda	Cross-sectional qualitative phenomenological study – face-to-face interviews	Explore the views of women who gave birth in Rwanda on the meaning of a poor childbirth experience.	Not specified – involved reading the interviews using the research question as a “lens” to establish the structure of the phenomenon of interest.	17 women (21-38 years), varying parity (0-4)	15 spontaneous vaginal births and 2 cesarean section	1. Neglect 2. Verbal and/or physical abuse 3. Insufficiently informed 4. Denial of the husband as a companion	26

Author/location	Methodology	Aims	Method of analysis	Sample	Type of birth	Central themes	Quality score
11. Namujju, Muhindo, Mselle, Waiswa & Nankumbi (2018), Uganda	Phenomenological qualitative – semi-structured interviews and focus group discussions	Describe postnatal mothers experiences and perceived meanings of childbirth in Uganda.	Thematic analysis	25 women(18-33 years), varying parity (0-5)	88% gave birth in health facility and 12% at home	1. Childbirth experiences 2. Social support 3. Meaning attached to childbirth	35
12. Porter, Teijlingen, Yip & Bhattacharya (2007), Scotland	Qualitative – open-ended questionnaire on a postal questionnaire	Examine women’s evaluations of the aspects of care that contributed to their childbirth experience.	Content analysis	521 women (mean age = 27.1)	Delivered in same university teaching hospital - 79% had an emergency cesarean section.	1. Length of labor 2. Care received from healthcare providers 3. Lack of control 4. Health complications	23
13. Roux & van Rensburg (2011), South Africa	Exploratory, descriptive, qualitative – phenomenological semi-structured interviews	Explore and understand South African women’s experiences and perceptions of unplanned Cesarean section.	Thematic content analysis	10 women, (mean age = 28)	Unplanned cesarean section	1. The physical experience 2. The experience of the environment 3. The experience of medical staff 4. The emotional experience	27
14. Yokote (2008), Japan	Qualitative and inductive – semi-structured interview	Investigate experiences of labor before cesarean, the surgery and post-partum week of	Qualitative and inductive using the KJ method	11 women, (20-43 years), seven primipara and four multiparous.	Emergency cesarean	1. Shock of disappointed expectations 2. Unavoidable fear and responsibility 3. Release from	26

Author/location	Methodology	Aims	Method of analysis	Sample	Type of birth	Central themes	Quality score
		Japanese women.				pressure 4. Re-experiences of fear and pain 5. Being “saved” by the baby 6. Escaping from a vicious cycle	

Table 3. Study characteristics.

Findings

The third-order constructs developed six common themes; inadequate healthcare providers, lack of control, physically challenging, lack of information, fear, and denial of companion. Table 3 illustrates these common themes, along with the second-order construct that informed the theme and the first-order construct to evidence it.

Study	Third-order Themes					
	Inadequate healthcare providers	Lack of control	Physically challenging	Lack of information	Fear	Denial of companion
1. Aktas & Aydin (2019)	<p>Inadequate healthcare facilities (second order construct): <i>“While the capacity of the room should be maximum 4 persons, they were 6-7 people...”</i> (p.185) (first order construct)</p> <p>Embarrassment/privacy (second order construct): <i>“The first vaginal examination was performed in the emergency service. I was so</i></p>		<p>Challenges/difficulties encountered (second order construct): <i>“It was very painful and I thought that sinners would burn like this in the hell.”</i> (p.181) (first order construct)</p>	<p>Inadequate communication (second order construct): <i>“When the midwife was doing something on me, she should have explained it to me. This would have increased my confidence in her.”</i> (p.184) (first order construct)</p>		

	<i>embarrassed and it was so disgusting.”</i> (p.184) (first order construct)			
2. Burcher et al (2016)	Distrust of the medical team (second order construct): <i>“My doctor was like, “you may be fine, but your body isn’t.” What does that even mean? How is my body sick, and I’m not feeling any of it? I didn’t get that, and it didn’t matter that I didn’t get that.”</i> (p.349) (first order construct)	Loss of control (second order construct): <i>“It was stressful because I wanted things done a certain way based on past experience. They were not letting me because it was like the whole focus was the baby.”</i> (p.350) (first order construct)	Poor communication (second order construct): <i>“No one would tell me anything. They just took the baby away from me because of whatever was going on.”</i> (p.348) (first order construct)	Fear of the operating room (second order construct): <i>“Do doctors realize how scary it is to be cut into while awake? Or are they just used to it?”</i> (p.348) (first order construct)
3 Chadwick et al (2013)	Negative interpersonal relations with the caregiver (second order construct): <i>“Then the sisters</i>		Lack of information (second order construct): <i>“It wasn’t nice because I wasn’t sure why, they don’t explain,</i>	Absence of labour companion (second order construct): <i>“My boyfriend couldn’t go inside [maternal obstetric unit] with</i>

came who work in the morning but that sister that was with me was rude with me because I hadn't brushed my teeth and then she said I mustn't talk in her face because my mouth stinks." (p.864) (first order construct)

Neglect and abandonment (second order construct): "*And then I went to the sister to ask her how far I was [centimeters dilated] and she said she had completely forgotten about me, they forgot about me, they*

they just say – "the ambulance is going to fetch you, to go to [public hospital]', they explain nothing, just he's coming to fetch you and then off you go." (p.865) (first order construct)

me so I was alone and I was a little bit scared..." (p.866) (first order construct)

	<i>didn't even know I was there...</i> (p.865) (first order construct)			
4 Fowles (1998)	Negative perceptions of health caregivers (second order construct): no available first-order construct to evidence.	Lack of control (second order construct): <i>"took the epidural, but I really didn't want to."</i> (p.237) (first order construct)	Pain (second order construct): <i>"severe pain in my back that could last as long as four months."</i> (p.237) (first order construct)	Lack of knowledge (second order construct): <i>"I had to get an epidural and was really afraid of getting one. There needs to be an extra class that discussed pain medications more thoroughly."</i> (p.237) (first order construct)
5 Hastings-Tolsma et al (2017)	Cocoon of compassionate care (second order construct): <i>"the midwife was very cross and mostly ignored me, then said – no go back to your hospital."</i> (e44)			Personal regard for decision-making (second order construct): <i>"I didn't realize options and the [physician] never discussed that I might try a vaginal birth... he didn't explain things to me."</i>

	(first order construct)		(e45) (first order construct)
	Protection (second order construct): <i>"In public hospitals [midwives] are just mean... they hit you when you cry. We don't go to the hospital sometimes because we are scared – they don't care after us... they scream at us... especially if it is during the night."</i> (e46) (first order construct)		
6 Henriksen et al (2017)	Not being seen or heard (second order construct): <i>"I was sent home again against my wishes with a sleeping pill... An</i>	Experience of pain and loss of control (second order construct): <i>"My labor was quick, only four hours, it was painful and out of control."</i>	Complications for mother, child or both (second order construct): <i>"To have general anesthesia when I had cesarean section was horrible."</i>

	<i>ambulance came without a midwife or doctor and I gave birth at home.</i> (p.37) (first order construct)	(p.37) (first order construct)	<i>You sleep during labor and miss the experience of becoming a mother.</i> (p.36) (first order construct)	
7 Husby et al (2019)	Negative experiences of healthcare workers (second order construct): <i>"It was a nurse who worked nightshift. She did not treat us well that day."</i> (p.92) (first order construct)		Difficulty returning to expected activities (second order construct): <i>"I am not able to work; I am not able to lift heavy things."</i> (p.91) (first order construct)	Experience of fear (second order construct): <i>"I was afraid, I was really afraid. That's what made me cry."</i> (p.90) (first order construct)
			Pain (second order construct): <i>"...when I came from the theatre, that pain really bothered me. I was just crying over that pain."</i> (p.91) (first order construct)	
8 Lewis et al (2014)	We were just a number (second order construct): <i>"felt like I was put on the table for</i>	No option (second order construct): <i>"There was one lady who was quite pushy, I was actually</i>		Still had questions (second order construct): <i>"They could have told me what to expect and</i>

slaughter.” (e134)
(first order
construct)

*considering having a
natural birth this
time, but she was
fully 100 percent
against it [vaginal
birth] I didn’t feel like
she gave me an
option.”* (e134) (first
order construct)

*where to go, like, I
had no idea! I kind of
felt like I was palmed
off. I was kind of on
my own to ask the
questions... that kind
of gave me a sense
of panic.”* (e134) (first
order construct)

Separated from baby
and partner (second
order construct):
*“There was no
reason why they
couldn’t put her on
my chest. I wanted
bub to be put on my
chest and it didn’t
happen.”* (e135) (first
order construct)

None of it happened
(second order
construct): *“None of
it happened [the birth
plan], they wouldn’t
let any of it happen*

*except the showing
the sex.” (e135) (first
order construct)*

9 Mackey
(1998)

Pain (second order
construct): *“The pain,
when you feel such
unbelievable
pressure.” (p.27)*
(first order construct)

Pushing (second
order construct):
*“That was probably
the worst – I had to
sustain from pushing
because they had to
set up – very
difficult.” (p.28)* (first
order construct)

Labour progress
(second order
construct): *“I just was
really getting
frustrated and I
couldn’t understand
why it wasn’t*

moving." (p.28) (first order construct)

10 Mukamuri go et al (2017)	Neglect (second order construct): " <i>I went on pushing, while alone, until the baby's body came out. I called the nurse again and she picked up the body from the delivery table.</i> " (p.5) (first order construct)	Insufficiently informed (second order construct): " <i>He did not inform me about how far the birth was, whether it was a matter of minutes or hours. He just told me to find a bed.</i> " (p.7) (first order construct)	Denial of husband as a companion (second order construct): " <i>They should let us give birth in presence of our husbands. This strengthens our security.</i> " (p.8) (first order construct)
	Verbal and/or physical abuse (second order construct): " <i>I immediately felt hurt inside myself due to the way she communicated with me... there was no respect.</i> "		

	(p.6) (first order construct)		
11 Namuju (2018)	Institutional care and support (second order construct): <i>"...I called her that I feel like something pushing me, she never bothered. She said "Keep quiet, for you, you are making yourself tired for nothing, you are not going to deliver now". I forced to deliver myself..."</i> (p.5) (first order construct)	Labour pains and management (second order construct): <i>"the body was feeling like metal, I said this time I am dead."</i> (p.4) (first order construct)	Childbirth fear (second order construct): <i>"I had feared the theatre because with me I knew whoever goes to theatre, does not come back. They just die like that. I imagined very many things."</i> (p.6) (first order construct)
12 Porter et al (2007)	Care received from healthcare givers* (second	Length of labour* (second order construct): <i>"The</i>	

	order construct): "Casual attitude of doctors and student midwives during labour as baby was distressed and I was given very little information as to what was happening." (p.151) (first order construct)		<i>length of time I had to wait before the C-section was done.</i> " (p.150) (first order construct)		Health complications* (second order construct): "The epidural did not work very well and I felt a lot of pain." (p.150) (first order construct)
13 Roux & van Rensburg (2011)	The experience of the medical staff (second order construct): "They don't take your feelings of emotions into consideration." (p.433) (first order construct)	The experience of the environment (second order construct): "It just felt like everything was just going so fast, all rushing past me so quickly. And there was nothing I could do to stop it. I was just lost in it." (p.432) (first order construct)	The physical experience (second order construct): "The whole thing was so draining... By the end I was finished, mentally and physically." (p.431) (first order construct)		The emotional experience (second order construct): "...you automatically go into panic mode. You can't stay calm and you can't relax." (p.433) (first order construct)

14 Yokote (2008)		Shock of disappointed expectations (second order construct): <i>"The midwife encouraged me to do this "for your baby"; I then consented to the surgery against my will."</i> (p.42) (first order construct)	Re-experiences of fear and pain (second order construct): <i>"I had severe pain and uterine contraction, so I received painkillers by injection, but they didn't work well."</i> (p.43) (first order construct)		Unavoidable fear and responsibility (second order construct): <i>"I was very scared of the surgery; my body was shaking before I had anesthesia."</i> (p.42) (first order construct)
Total	21	10	12	7	5

Table 3.

Common themes derived from second-order constructs with first-order constructs as evidence.

* themes formed by the first author (H.B) as no clear themes were noted in the paper by the authors

** total number of second-order themes that fit within the third order theme

1. Inadequate healthcare providers.

The most commonly reported theme across the studies was that women were unhappy with aspects or all of the care received during childbirth. All of the studies except for two (9 and 14) reported a theme relating to inadequate healthcare providers. Both of these remaining studies (9) reported positive data on the healthcare providers; "I felt a special atmosphere in which everyone supported me." (Yokote, 2008, p.43), and "...the people [nurses] who were there were to give you security, but it wasn't overpowering." (Mackey, 1998, p.24).. One of these studies (9) scored low on the quality appraisal (see Table 2). They did not discuss the researchers role for potential bias or the credibility of their findings. Considering that they recruited women from the hospitals they gave birth in and conducted most of their interviews with women whilst in hospital there is a possibility they may have felt a need to describe their experiences of healthcare providers as more positive in fear that if they had not this may affect the care they received.

Many of the women experienced extremely neglectful and abusive care from their healthcare providers (3, 5, 10 and 11) whereby they were left to give birth "alone" (Chadwick et al., 2014, p.865) and were threatened or assaulted during childbirth; "they hit you when you cry" and "you must keep quiet because they will do something bad to you" (Hastings-Tolsma et al., 2018).

These studies (3, 5, 10 and 11) examined childbirth in African nations; in studies 10 and 11 the childbirth took place in public services within economically developing nations (Uganda and Rwanda). These nations are classified as being a 'least developed country' and thus, their public services are likely underfunded and the facilities poor (United Nations, 2018a, 2018b). Nevertheless, neglectful and abusive care is unacceptable which is evident in the shock and betrayal that comes through from these women's stories.

2. Lack of control.

The second most commonly reported theme was that many of the women felt they were not in control (studies 2, 4, 6, 8, 13 and 14). They felt personally out of control, for example "I was just lost in it" (Roux & van Rensburg, 2011, p.432). This personal control was linked to believing they should be able to give birth vaginally and with minimal assistance (Roux & van Rensburg, 2011). This

resulted in feelings of shame and failure; that they were “not being as good” (Roux & van Rensburg, 2011, p.432). Other women explained their lack of control as a result of it being taken away from them by healthcare providers. For example, being denied options “I didn’t feel like she gave me an option” (Lewis et al., 2014, p.134), or being forced to do something they “really didn’t want to” (Fowles, 1998, p.237). Although study 4 was the lowest scoring paper in the quality appraisal this finding is still valid due to it being found within five other studies, of which two (studies 8 and 2) were amongst the highest scoring.

The lack of control that the women experienced often led to feelings of vulnerability and helplessness. Some women reported having to agree to medical procedures such as cesarean section because they were led to believe that they did not have a choice (Fowles, 1998; Yokote, 2008) and that their needs were not a priority as “the whole focus was the baby” (Burcher et al., 2016, p.350).

Further, women reported that services were often chaotic and overstretched (Aktas & Aydin, 2019; Hastings-Tolsma et al., 2018). They felt this contributed to their births being rushed and ending in unsatisfactory circumstances, for example, one woman said, “you should inform about this. Maybe it could save a lot of vacuum extractions and forceps deliveries?” (Henriksen et al., 2017, p.37). It is worth noting that the former two of these studies were conducted in less-developed countries. Nevertheless, the latter study was conducted in Norway, which is a well-developed country, and this provides a view that regardless of the context of the healthcare services women can still experience their births as chaotic due to over-stretched services. This may point to a cross-cultural feeling of chaos due to the nature of birth being unpredictable and turbulent and demonstrates that ultimately women must feel supported and cared for no matter what context they are giving birth within.

3. Physically challenging.

Many of the women reported aspects of their childbirth as being physically challenging (1, 4, 6, 7, 9, 11, 12, 13 and 14). Some of the women were not prepared for how much pain they were in and felt alarmed by this; “other children never pained me like this... I did not understand well” (Namujju et al., 2018, p.4). Another woman reported how shocked she was by the amount of pain, for her it was “just unbelievable, it was just incredible” (Roux & van Rensburg, 2011, p.431).

Within the theme of physically challenging were the unexpected consequences of childbirth and health complications that many women experienced. Unplanned cesarean section was commonly associated with the surprise of the physical challenges that it came with, for example “every day was full of pain!” (Yokote, 2008, p.43), and “I couldn’t stand upright, I felt butchered and too weak to look after my baby” (Porter et al., 2007, p.151). Complications were also distressing and challenging for these women “My epidural went wrong and I started to freeze upwards.” (Porter et al., 2007, p.150).

The physical challenges that women faced were often unexpected and they felt ill-prepared for the lasting effects that childbirth had on their bodies. For example, one woman reported, “I am not able to do anything! Except to hold and change diapers on my baby.” (Husby et al., 2019, p.91), indicating a feeling of frustration by her lack of physical ability. For some women their physical challenges lasted months “wound getting infected and not closing properly for about 3 months.” (Porter et al, 2007, p.151). This finding is prevalent because it was supported by nine out of fourteen of the studies and also many of these studies scored highly quality appraisal (for example studies 7 and 11). Three of these studies (4, 9 and 12) fell within the lowest scoring papers on quality appraisal and this must be taken into consideration when interpreting the results of this review. Porter et al. (2007)’s data has been used to illustrate the evidence for this theme and this study was a lower scoring paper.

4. Lack of information.

Half of the studies reported that women felt they did not have enough information given to them before, during or after their childbirth (1, 2, 3, 4, 5, 8 and 10). In particular, women felt as though they were left in the dark by healthcare professionals “they wouldn’t let me hold her and took her right to ICU... no one told me anything... absolutely nothing... no preparation” (Hastings-Tolsma et al., 2018, p.45). They had many unanswered questions (Lewis et al, 2014) leaving them with a sense of uncertainty and concern for their life and their baby’s life; “that kind of gave me a sense of panic” (Lewis et al., 2014, p.134). This lack of information resulted in distrust towards healthcare providers and an ‘us and them’ mentality, which led them to feel unimportant. For example, one woman reported “I kind of felt like I was palmed off.”, and another that she felt she “needed more time to be more prepared” (Lewis et al., 2014, p.134). The lack of information women experienced associated with dissatisfaction with healthcare providers and a lack of control leaving women feeling like they did not matter; “they were not

letting me because it was like the whole focus was the baby” (Burcher et al., 2014, p.350).

5. Fear.

The experience of fear was reported as a theme in five studies and all of which focused on experiences of cesarean section (2, 7, 11, 13 and 14). Additionally, Porter et al (2007) also reported that fear was experienced amongst their participants who had undergone a cesarean section; “it was very frightening” (p.151). Cesarean section was reported with a sense crisis and as though it was ‘life or death’ for these women. For example, one woman experienced “Panic at being rushed to theatre” (Porter et al., 2007, p.151) and another reported that she believed “when you do it, it is a risk. It is life or death...” (Husby et al., 2019, p.90).

6. Denial of companion.

A less common theme was denial of companion, with two studies (3 and 10) reporting that this contributed to a negative childbirth. These women were denied the opportunity to have their partner with them during childbirth, leaving them feeling “alone” and “scared” (Chadwick et al., 2014, p.866). One woman explained that having a companion with her would have helped her to feel safe and protected; “this strengthens our security” (Mukamurigo et al., 2017, p.8). Although this theme was not noted explicitly within many of the studies it is still significant. Denial of a companion not only involves not being allowed a significant other to be physically present but also involves women not perceiving a companion to be emotionally present. This is important as many women described that they had no one there to support them, for example, “I did not know who would be my midwife at birth...never introduced herself...I did not know who to trust.” (Aktas & Aydin, 2019, p.184). Additionally, one woman said “the doctors did their routine checks then they would just leave...I was alone until I gave birth.” (Hastings-Tolsma et al., 2018, e45). It is apparent that many of these women needed a safe base to turn to when they were at their most vulnerable. This safe base did not need to be a partner but could be a healthcare provider who would either be there physically or emotionally to support them.

Line of argument.

A line of argument synthesis aims to tell a story about the data and the themes that have been identified in the analysis (France et al., 2019). Many of the themes that emerged were very similar in nature. There was a clear overarching

understanding of birth as being fragile due to it being an extremely exposing experience that creates immense feelings of vulnerability. The women who took part in these studies described very different experiences in terms of what happened during their birth. Nevertheless, these women described shared emotions felt during and after their births. These emotions depicted that fragility of birth as they described feeling scared, panicked, and shocked.

Further, there were similarities in the birth experiences across the studies despite the clear disparities between healthcare contexts across different countries. For instance, the shocking stories of abuse and intimidation were from women who had given birth in Sub-Saharan African nations (Husby et al., 2019; Mukamurigo et al., 2017; Namujju et al., 2018). Yet, fear and panic were also noted in developed countries such as Australia (Hamilton et al., 2014) and the USA (Burcher et al., 2016). This further supports the overarching understanding of birth as being fragile as it shows that these immense emotions felt during birth can occur in any context. The trust and sense of security that a woman need in order to feel safe and protected during birth can be instantly shattered and this can create an opening for harmful and damaging perceptions to take shape. The thing that women needed in order to feel less negative about their births was to be provided with a safe and compassionate space to give birth, however, this review highlights the lack of such care internationally and the effects of this are devastating for women.

DISCUSSION

The review aimed to describe what views and explanations are provided by women when describing their negative birth experience. In order to do this data from 14 articles was explored to develop an overarching interpretation and synthesis of the literature that entailed the formation of six common themes and a line of argument.

Supportive and respectful care.

This meta-ethnographic study found that there are common experiences that women have that explain what made their childbirth a negative experience. Overall, women need and want to feel safe and supported during their childbirth. Previous research has highlighted the importance of safe childbirth practice and found that women want this to come through a sense of guidance and involvement throughout (Ronnerhag, Severinsson, Haruna, & Berggren, 2018).

A supportive environment also involves women being given the opportunity to have a companion with them during their childbirth.

This need to have a companion has been linked with adult attachment theory suggesting that women's attachment styles are activated during childbirth due to the intense distress they experience (Reisz, Brennan, Jacobvitz, & George, 2019). As such, women who have an anxious attachment style will require more support and companionship during birth as their need to seek proximity to a caregiver is heightened (Wilson, Rholes, Simpson, & Tran, 2007). Our findings indicate that women need to have a secure base to turn to in moments of distress that is reliable and consistent throughout childbirth. Without this, women can be left feeling unsafe and unsupported. A Cochrane review reported that women have higher birth satisfaction and fewer complications during childbirth when they have continuous support (Hodnett, Gates, Hofmeyr, & Sakala, 2013).

Negative experiences are largely due to the way that healthcare providers interact with and behave towards women during childbirth. It is crucial and compulsory that healthcare providers do not abuse and/or neglect women in any environment and especially at a time of vulnerability and risk of danger to life. It is concerning that some of the women within this meta-ethnography reported receiving neglectful and abusive care. There is a current crisis within maternity care being delivered in Sub-Saharan Africa, with maternal deaths being the highest globally in these nations and almost all of these are preventable (Blaauw & Penn-Kekana, 2010; Doctor, Nkhana-Salimu, & Abdulsalam-Anibilowo, 2018). Future research should continue to address this crisis.

Disrespectful care can lead to serious adverse outcomes for women and their infants, including PP-PTSD (Elmir et al., 2010). When post-partum women experience mental health difficulties this can lead to infant developmental problems, including poor cognitive and language functioning (McCain & Mustard, 2002). Therefore, it is paramount that women receive care that is at a minimum respectful and caring. Previous research highlights the importance of providing care that addresses the psychological and emotional needs of the mother during her birth (Baker, Choi, Henshaw, & Tree, 2005). These needs must be involved when delivering respectful care as this review has shown that in order for a women to feel respected she must be nursed not just for her physical needs but her emotional needs too.

Empowerment.

This review highlighted the need for informed care for women in the perinatal period. Women need to be given an appropriate amount of information during their pregnancy. Too much information can leave women feel overwhelmed and too little can leave them feeling ill-informed (Carolan, 2007). This information must be accompanied with assistance to help facilitate understanding (Gazmararian, Curran, Parker, Bernhardt, & DeBuono, 2005), this further advocates the need for continuous support throughout the perinatal period (Hodnett et al., 2013). The need for suitable information provision has been documented as something that can empower women (Nicholls & Ayers, 2007). In turn, this could prevent feelings of lack of control and increase satisfaction with healthcare providers. It has been documented that women place high importance on feeling in control during childbirth and that this comes from active decision making, and knowledge and information is needed to achieve this (Downe et al., 2018).

Limitations

This review limited the inclusion of studies to only those that published in English and in peer-reviewed journals. These means that there is a possibility that publication bias may have affected this review. The authors made every effort to conduct a comprehensive search within the databases identified.

CONCLUSION

A negative birth experience can have profound consequences for a mother and her infant. Transforming healthcare across the world would be a huge task requiring an enormous amount of further research, awareness raising and funding. Nevertheless, this review has highlighted a number of factors that contribute to a negative childbirth experience that can be addressed immediately by professionals and services. Healthcare professionals should adopt a woman-centered approach to childbirth that considers their physical and emotional needs equally so she can feel empowered. Women should be kept informed throughout and provided opportunity to have a companion at all times.

Further research should focus on implementing models of care within services and evaluating the impact these have on childbirth including emotional, physical and developmental outcomes for mother. Maternal healthcare could benefit from educational campaigns within services to call for improved safe and

compassionate practice. Further research should then evaluate these services to analyse the effectiveness of such educational campaigns.

A huge cultural shift is needed to improve maternal care for women globally. This shift should result in a perception of woman being at the top of the hierarchy at all stages of maternal care and all healthcare professionals understanding that she should be at the centre of decision-making at all times. A cultural shift such as this should not result in unsafe decisions being made during birth but should enable informed decisions that take into consideration both the medical perspective of the healthcare provider and the emotional, cultural and values-driven perspective of the mother.

Conflict of Interest statement

No conflict of interest has been declared by the author.

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JOURNAL PAPER

**The Role of Psychological Flexibility in Birth Experience for First-Time
Mothers: A Mixed Methods Study**

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Abstract

This study explored the role of Psychological Flexibility (PF) in birth experience. An exploratory sequential, two-phased, mixed-methods design was used. Phase 1: non-parametric correlations analyzed the relationship between (N=68) scores on PF, birth satisfaction and expectations. No significant relationship was found between PF and birth satisfaction or expectations. Phase 2: participant (N=11) interviews were analyzed using deductive-inductive Thematic Analysis. Two deductive themes considered: Psychological Flexibility and Psychological Rigidity. Five inductive themes were constructed: Support & Care, Choice/Control, Personal Processes, Preparedness and Birth Processes. Results are discussed and suggestions made for maternity care. Future research could explore acceptance in birth satisfaction.

Keywords: Birth, Childbirth, Birth experience, Birth expectations, Psychological Flexibility, Mixed-methods, Thematic Analysis

1. Background

Childbirth is a momentous event for a woman¹ where they can feel empowered and transformed (Halldorsdottir & Karlsdottir, 1996; Thomson & Downe, 2010). Satisfaction with birth is crucial for a woman's wellbeing and relationships (Ayers et al., 2006). Negative experiences of birth are linked to the development of post-natal depression (Bell & Andersson, 2016), post-traumatic stress disorder (Ayers et al., 2016) and difficulties with the parent-infant bond (Ayers et al., 2006). Expectations of birth are closely linked to appraisals of birth. When expectations are met, birth can be experienced as more positive than if expectations are not met (Goodman et al., 2004). Moreover, negative experiences of birth are more likely when most prioritized expectations are not met (Goodman et al., 2004; Hauck et al., 2007)².

In the United Kingdom (UK), pregnant women are encouraged to write a birth plan, which documents their preferences for birth. Birth plans are closely related to birth expectations as they are a means of communicating expectations to healthcare professionals (Kaufman, 2007). When birth plans are met, birth is reported as more positive (Kuo et al., 2010) and there are links between birth

¹ The present study uses the terms "women" and "mother" throughout – see extended paper sections 6.9. and 10.4. for more detail

² See extended paper section 6.1. – 6.5. for more detail

plan fulfilment and better maternal and neonatal outcomes (Hidalgo-Lopezosa et al., 2017). However, research suggests only 37% of birth plans are fulfilled (Hidalgo-Lopezosa et al., 2017). In fact, those with birth plans are shown to feel less satisfied with, and experience feelings of loss of control during birth than those without birth plans (Afshar et al., 2018). This creates the question: if so many expectations are unfulfilled then what helps women reconcile?

Psychological Flexibility (PF) is a concept adopted within the Acceptance and Commitment Therapy (ACT) model (Hayes et al., 1999). PF is defined as “how a person: (1) adapts to fluctuating situational demands, (2) reconfigures mental resources, (3) shifts perspective, and (4) balances competing desires, needs, and life domains”, (Kashdan & Rottenberg, 2010, p. 866). In the context of birth, PF could illustrate how a woman adapts to situational demands of an unpredictable birth, shifts perspective or expectations accordingly and balances competing wishes and values that encompass expectations of birth. Women could be engaging in PF-related skills both during labor and post-birth when making sense of their birth experience³.

According to Hayes et al (2006) skills relating to PF involve the six core therapeutic processes of ACT: Contact with the Present Moment, Values, Committed Action, Self-As-Context, Defusion, and Acceptance. These processes

³ See extended paper sections 6.6. and 6.7. for more detail

are interrelated and form the ACT framework termed 'Hexaflex' (Appendix B). Each core process plays a role in PF and thus the aim of ACT interventions is to increase PF processes in individuals (Levin et al., 2012). On the flipside are six core pathological processes of Psychological Rigidity (PR): Inflexible Attention, Remoteness from Values, Unworkable Action, Fusion with Self-Concept, Fusion, and Experiential Avoidance (Appendix C). Engagement in any pathological process gives rise to PR, which is thought to minimize one's ability to live a rich and meaningful life (Harris, 2019).

Feeling a sense of personal control is linked to greater satisfaction with birth (Goodman et al., 2004). In line with ACT rhetoric, being psychologically flexible would involve letting go of rigid rules that may lead a woman to believe they had lost control during birth (Hayes et al., 1999). More specifically, a woman would be able to allow themselves to break free from expectations of birth in circumstances that are reasonable according to long-term goals and values. Therefore, it is hypothesized that PF is linked with ability to shift perspective when birth does not meet expectations in order to feel more satisfied with birth.

Stigma and self-stigmatization can contribute to the development of perinatal mental health problems (Fair & Morrison, 2012; McLoughlin, 2013). Women have reported self-stigmatizing as being a 'bad mother' or a 'bad woman' if birth expectations are unmet (Schneider, 2018). ACT uses techniques such as defusion to help individuals detach from self-stigmatizing thoughts to prevent

those thoughts from dominating their mind and mood (Lillis et al., 2009). Further, preliminary studies exploring effectiveness of ACT in perinatal populations have shown to increase PF and reduce distress (Tunnell et al., 2019; Waters et al., 2020)⁴.

There are calls for research to examine how to increase birth satisfaction to improve perinatal outcomes (Svanberg, 2017; World Health Organization, 2018)⁵. If PF helps shift perspective in order to feel more satisfied with birth, then it would be useful to first explore the relationship between PF and birth satisfaction. Such research would help to understand if higher levels of PF are related to birth satisfaction. Further, exploring women's perspectives on what helps or hinders sense-making of birth could provide understanding of whether, and how, PF is implicated in sense-making of birth. This knowledge will have clinical implications through its direct relevance to ACT and the perinatal population and may indicate areas for future research to improve maternity and perinatal care.

Such research could identify changes in clinical practice at a service and a therapeutic level through development of ACT interventions within perinatal psychology. This fits with the NHS Long Term Plan and Five Year Forward View for Mental Health as both detail the need for evidenced-based specialist

⁴ See extended paper 6.7. for more details

⁵ See extended paper 6.8. for more detail

treatments as part of expanding perinatal services across the UK (NHS England, 2017, 2019). Therefore, this research will aid services within this growing specialist field⁶.

Aims

This study has three aims: (1) To explore the relationships between PF, birth satisfaction and birth expectations, (2) To explore whether women report PF-related skills as playing a role in sense-making of birth, and (3) To explore what aspects women describe as helping and/or hindering sense-making of birth⁷.

2. Methods

Study Design

Ethical approval was granted from Nottingham University Ethics Committee⁸. A sequential explanatory design following two phase, mixed methods design was used. Phase One involved collection of data pre- and post-birth to explore whether level of PF moderated appraisal of birth. Phase Two involved semi-structured interviews with a small sample of women who took part

⁶ See extended paper 6.10. for more detail

⁷ See extended paper 6.10. for more detail

⁸ See extended paper 7.12.1. for more detail

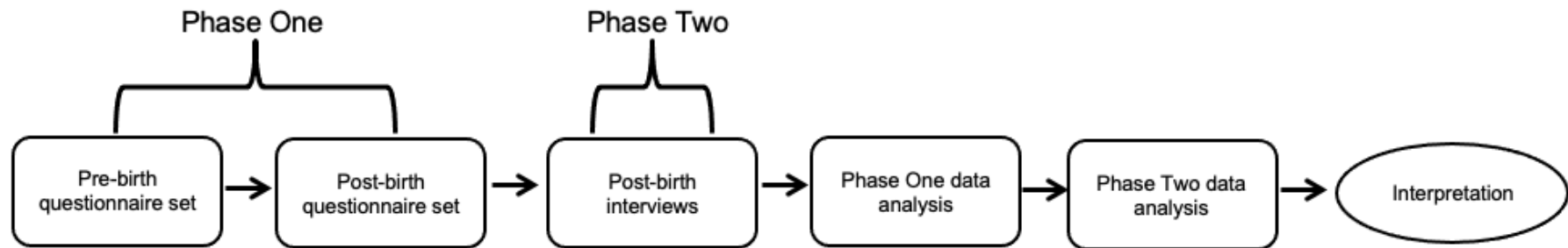
in Phase One exploring what aspects played a role in sense-making of birth to further explain Phase One findings. The procedure is illustrated in Figure 1.⁹ An epistemological position of Descriptive Contextualism was adopted in this study, which seeks to understand whole experiences through examining the particulars of the whole (Hayes, 1993). Descriptive Contextualism lends itself to understanding sense-making in birth because birth is a complex event that is personal to an individual and their context¹⁰.

⁹ See extended paper 7.1. for more detail

¹⁰ See extended paper 7.2. for more detail

Figure 1.

Sequential Explanatory Study Procedure



Phase One Questionnaire Data Collection and Analysis

Procedure

Phase One comprised two time points. Time point one (T1) involved recruitment and data collection pre-birth. Time point two (T2) involved data collection post-birth. A self-selection and snowball sampling strategy were adopted, and research was advertised on social media¹¹. Participants completed T1 measures on an online survey. T2 measures were emailed six weeks after participants' due date. A reminder was sent two weeks later.

Sample

Inclusion and exclusion criteria. Participants were required to be at least 28-weeks pregnant and not have given birth before, a UK resident, 18 years or older and able to read and speak English. T2 participants were those who took part in T1 and had since given birth. Individuals who experienced infant death or an unexpected serious health complication were excluded¹².

Participants. The sample¹³ (N=68, mean age=32, range=19, SD=4.29) were 82% White British and 71% were married. The majority (63%) of participants

¹¹ See extended paper 7.4. for more detail

¹² See extended paper 7.5. for more detail

¹³ See extended paper 8.1. for more detail

were in jobs that require a degree-level qualification alongside experience-related training e.g. Accountant, Teacher, Solicitor (Office for National Statistics, 2020).

An a priori power analysis indicated a sample size of 77 was needed to ensure power $\geq .80$. A total of 91 participants were recruited at T1 to allow for 10% attrition¹⁴. A total of 68 participants completed T2 measures.

T1 Measures¹⁵

Demographics. Age, marital status, ethnicity and occupation were obtained.

Psychological Flexibility. The Comprehensive Assessment of ACT Processes (CompACT) was used to measure PF (Francis et al., 2016). The CompACT (Appendix D) is a 23-item questionnaire whereby participants rate how much they agree with a statement on a 7-point Likert-type scale (0 = strongly disagree, 6 = strongly agree). Scores can range from 0 to 138 where a higher score indicates greater PF. Table 4 presents the psychometric properties of the CompACT.

¹⁴ See extended paper 7.10.3. for more detail

¹⁵ See extended paper 7.7. for more detail

Table 4*Psychometric properties of the CompACT and BSS-R*

Measure	Reference	Subscales	Example item	Reliability	Validity	Score range
Comprehensive Assessment of ACT Processes (CompACT)	Francis et al (2016)	Openness to Experience (OE), Behavioural Awareness (BA) and Valued Action (VA)	OE: "One of my big goals is to be free from painful emotions" BA: "I rush through meaningful activities without being really attentive to them" VA: "	Average inter-item correlations was 0.34, indicating strong internal consistency	Convergent, discriminant and concurrent validity supported. Face and content validity due to Delphi methodology	Total score: 0-138 (higher score indicating greater psychological flexibility) OE subscale score: 0-60 BA subscale score: 0-30 VA subscale score: 0-48
Birth Satisfaction Scale – Revised (BSS-R)	Hollins-Martin and Martin (2014)	Stress experienced during labour (SL), Women's personal attributes (WA) and	SL: "I came through childbirth virtually unscathed"	Cronbach's alpha of the total scale was 0.79 and for the subscales SL,	No significant correlations were found between total score or subscale scores and age	Total score: 0-40 (higher score indicating higher satisfaction with childbirth) SL subscale score: 0-16

Measure	Reference	Subscales	Example item	Reliability	Validity	Score range
		Quality of care provision (QC)	WA: "I felt very anxious during my labour and birth" QC: "I felt well supported by staff during my labour and birth"	WA and QC were 0.77, 0.64 and 0.74 respectively	supporting divergent validity Known groups validity explored childbirth type and found significant difference between those categorized as "non-normal" childbirth and "normal" childbirth ($t_{(221)}=3.44, p=0.001$)	WA subscale score: 0-8 VA subscale score: 0-16

Pre-birth Narrative of Expectations of Childbirth. Expectations of childbirth are complex (Borrelli et al., 2018; Howell-White, 1999), therefore participants were asked to provide a short narrative of their birth expectations (Appendix E).

T2 Measures

Psychological Flexibility. CompACT (Francis et al., 2016).

Birth Satisfaction. The Birth Satisfaction Scale-Revised (BSS-R); (Hollins-Martin & Martin, 2014) (Appendix F). The BSS-R was used to measure satisfaction with childbirth. The BSS-R is a 10-item questionnaire whereby participants indicate their agreement with a statement using a 5-point Likert-type scale (0 = strongly disagree, 4 = strongly agree). The BSS-R is shown to have three distinct but correlated sub-scales: (1) care provision, (2) personal attributes, and (3) stress during labor. Table 4 presents the psychometric properties of the BSS-R.

Post-birth Measure of Expectations of Childbirth. A 4-point Likert-type scale developed by the authors was used to determine whether birth expectations were met or unmet (Appendix G).

Post-birth Narrative of Expectations of Childbirth. Participants were asked to provide a short narrative of why they felt their birth had or had not gone as expected (Appendix H).

Type of Birth. Participants were asked to choose what type of birth they had from provided options (Appendix I).

Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26 (IBM Corp, 2019). Initially, we had considered conducting moderation analyses looking at whether PF moderates how a woman appraises her birth and whether this depends on if their expectations of childbirth are met or unmet, however, a lack of significant relationship between variables invalidated such planned analyses. Non-parametric correlations were used as the sample was not normally distributed. An independent samples t-test was conducted to explore significant relationships. Due to insufficient sample size results are exploratory in nature. A conventional content analysis was conducted to explore results from the Narrative Measure of Expectations (Hsieh & Shannon, 2005). Data from participant's answers on pre-birth and post-birth narrative measures were paired together and coded for met and unmet expectations. A tally chart

was created to quantify frequencies of reported birth expectations and considered with the findings of Post-birth Measure of Expectations of Childbirth¹⁶.

Phase Two Interviews and Analysis

Procedure

Phase Two adopted a purposive sampling strategy¹⁷. Participants were selected to represent higher levels and lower levels of PF, higher and lower scores of birth satisfaction and where possible a range of demographics e.g., age, occupation. High and low scores of PF and birth satisfaction were calculated by determining the mean score and adding one standard deviation for high scores and minus one standard deviation for low scores (Low PF = 78; High PF = 111; Low birth satisfaction = 20; High birth satisfaction = 35). In Phase One participants were asked to opt-in to be contacted and asked to take part in Phase Two. Interviews were conducted via telephone and followed a semi-structured interview schedule (Appendix J). The interview focused on asking how they made sense of birth and what helped or hindered sense-making.

Sample

¹⁶ See extended paper section 7.9. for more detail

¹⁷ See extended paper section 7.10.1. for more detail

Inclusion and exclusion criteria. Participants were required to have taken part in Phase One. Individuals who experienced infant death or an unexpected serious health complication were excluded.

Participants. A total of 11 participants (N = 11, mean age = 33, range = 17, SD = 4.91)¹⁸ were interviewed as this met recommendations for reaching sufficiency in Thematic Analysis (Ando et al., 2014)¹⁹.

Analysis

Interviews were audio-recorded and transcribed by a transcription service. Data was analyzed using a deductive-inductive thematic analysis (TA) and carried out within a descriptive contextualist framing. The TA followed the guided six-phase procedure by Braun and Clarke (2006). First, a deductive analysis was conducted on the whole data set using the framework of ACT's HexaFlex (Hayes et al., 2006), followed by a further inductive analysis on the whole data set. The first author (HB) carried out an initial deductive coding of one transcript and the second and third authors (RS-F and DDB) checked the coding to ensure plausibility, rigor and transferability. The same was done for an initial inductive coding of one transcript. The deductive analysis aimed to answer the research question 'Do women report PF-related skills as playing a role in helping them to

¹⁹ See extended paper section 7.10.2. for more details

make sense of their birth?' The inductive analysis aimed to answer research questions 'What aspects do women describe as being important in helping them to make sense of their birth?' and 'What aspects do women describe as hindering them being able to make sense of their birth?' Qualitative findings from Phase Two were used to further explain and interpret quantitative findings from Phase One. Both data sets were interpreted individually and subsequently assimilated²⁰.

3. Results

Phase One²¹

Descriptive statistics (see Table 5) were conducted to look at differences between participants that completed Phase One (completed both the pre- and post-birth questionnaires) and participants who did not (only completed the pre-birth questionnaires). Generally, participants appeared similar in their demographic characteristics. There were differences in occupation; 30% of non-completers had jobs within group 3 compared to 5.9% of completers. There were also differences between pre-birth PF scores. Participants that completed Phase One had a higher mean re-birth PF score (94.47), compared to those participants that did not complete Phase One (82.33).

²⁰ See extended paper section 7.10.6. for more detail

²¹ See extended paper section 8.2. for additional Phase One analyses

Table 5.*Demographics and PF scores for completers and non-completers*

	Completers N = 68 (%)		Non-completers N = 21 (%)	
Age	Mean = 31.97 S.D. = 4.29		Mean = 31.95 S.D. = 3.17	
Marital Status	Single	1 (1.5%)	Single	1 (4.8%)
	Married	48 (70.6%)	Married	16 (76.2%)
	Cohabiting	15 (22.1%)	Cohabiting	4 (19%)
Ethnicity	White British	56 (82.4%)	White British	20 (95.2%)
	White Irish	1 (1.5%)	White Irish	0
	White – Any other	7 (3%)	White – Any other	1 (4.8%)
Occupational Group	1	6 (8.8%)	1	1 (4.8%)
	2	43 (63.2%)	2	11 (55%)
	3	4 (5.9%)	3	6 (30%)
	4	4 (5.9%)	4	0
	5	0	5	1 (4.8%)
	6	2 (2.9%)	6	1 (4.8%)
	8	1 (1.5%)	8	0
	9	1 (1.5%)	9	0
Pre-birth PF	Mean = 94.47 SD = 16.83		Mean = 82.33 SD = 9.47	

Note. Completers = participants who completed both the pre- and post-birth questionnaires; Noncompleters = participants who only completed the pre-birth questionnaires

Nonparametric Correlations²²

Table 6 presents the means, standard deviations and ranges of the measures.

Table 6.

Means, standard deviations and ranges of measures

Measure	Mean	Standard deviation	Range	Cronbach's Alpha
Birth Satisfaction (BSS-R)	27.46	7.08	29	.814
Pre-PF (CompACT)	94.47	16.83	70	.860
Post-PF (CompACT)	90.59	19.00	92	.899
Birth Expectations*	1.10	.979	3	n/a

Note. *Birth expectations score ranged from 0-3 (0 = not at all met, 1 = hardly met, 2 = mostly met, and 3 = completely met)

The Kendall's Tau correlations indicated that no significant relationship was found between Birth Satisfaction and both Pre-birth PF ($p = .092$) and Post-birth PF ($p = .454$). No significant relationship was found between Birth Expectations and both Pre-birth PF ($p = .956$) and Post-birth PF ($p = .277$). A significant negative relationship was found between Birth Satisfaction and Birth Expectations, $\tau = .49$, $p < .001$. Those participants who reported that their birth expectations were 'hardly' or 'not at all' met reported feeling less satisfied with their birth than those participants who reported their birth expectations were 'mostly' or 'completely met'. A significant negative relationship was also found between Pre-birth PF and Post-birth PF $\tau = .55$, $p < .001$. Those

²² Nonparametric correlations were conducted due to the violation of the assumption of normal distribution. See extended paper section 7.9. for more detail

participants who scored lower on PF pre-birth also scored lower on PF post-birth (Table 7 presents the correlations)²³.

Table 7.

Non-parametric correlations between the measures

			Birth	Pre-PF	Post-PF	Birth
			Satisfaction			Expectations
Kendall's tau	Birth	Correlation	1.000	.143	.064	.490
	Satisfaction	Coefficient				
	(BSS-R)	Sig. (2-tailed)	.	.092	.454	.000*
	Pre-PF	Correlation	.143	1.000	.549	-.005
	(CompACT)	Coefficient				
		Sig. (2-tailed)	.092	.	.000*	.956
	Post-PF	Correlation	.064	.549	1.000	-.102
	(CompACT)	Coefficient				
		Sig. (2-tailed)	.454	.000*	.	.277
	Birth	Correlation	.490	-.005	-.102	1.000
	Expectations	Coefficient				
		Sig. (2-tailed)	.000*	.956	.277	.

* $p < .001$

²³ See extended paper

Independent Samples T-Test

Table 8 presents the frequencies and percentages for Birth Type. Table 9 presents the means of Birth Satisfaction for Birth Type and Birth Expectations. An independent samples t-test indicated a significant difference between Birth Satisfaction and Birth Type group $t(64) = 4.18, p < .001$. Participants were grouped either by 'assisted' i.e., assisted vaginal, planned or emergency caesarean-section (N = 33) or 'non-assisted' births i.e., unassisted vaginal (N = 33) due to insufficient numbers in each separate category of birth type. Those participants who had a non-assisted vaginal birth reported higher birth satisfaction than those participants who had either an assisted vaginal birth, planned caesarean-section or emergency caesarean-section. There was a significant difference between Birth Satisfaction and Birth Expectations $t(64) = 5.1, p < .001$. Those participants who had a non-assisted vaginal birth were more likely to have their expectations met compared to those participants who had either an assisted vaginal birth, planned caesarean-section or emergency caesarean-section (Table 10 presents the independent samples t-test results)²⁴.

²⁴ See extended paper

Table 8.*Frequencies and percentages for Birth Type*

Birth Type	Frequency	Percent
Non-assisted vaginal birth	33	48.5
Assisted vaginal birth*	12	17.7
Planned caesarean-section	8	11.8
Emergency caesarean-section	13	19.1
Missing	2	2.9
Total	68	100

*Assisted vaginal birth includes births assisted with forceps and/or ventouse.

Table 9.

Means of birth satisfaction (BSS-R) for birth types and birth expectations responses

Birth Expectations	Mean	N	Standard Deviation
Not at all	22.7917	24	6.46044
Hardly	26.2222	18	4.92957
Mostly	32.1905	21	5.86190
Completely	34.4000	5	3.20936
Total	27.4559	68	7.08464
Birth Type	Mean	N	Standard Deviation
Non-assisted Vaginal	30.85	33	1.03
All Other Births*	24.27	33	1.19

Note. *All other births include assisted vaginal births, planned and emergency caesarean-section

Table 10.

Independent Samples T-Test – difference of means between birth satisfaction and birth type group and between birth expectations and birth type group*

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Birth Satisfaction (BSS-R)	2.03	.159	4.18	64	.000*	6.58	1.57	3.43	9.72
Birth Expectations	.00	.948	5.10	64	.000*	1.06	.21	.65	1.48

Note. *Participants were grouped either by 'assisted' i.e., assisted vaginal, planned or emergency caesarean-section or 'non-assisted' births i.e., unassisted vaginal

**p<.001

Content Analysis²⁵

The Post-birth Measure of Expectations of Childbirth showed that 62% of participants reported that their expectations of birth were 'not at all' or 'hardly' met. Only 7% of participants reported that their expectations of birth were 'completely' met. The content analysis provides more specific details of why participants felt their expectations had or had not been met. Table 11 presents the frequencies of reasons for why birth had or had not gone as expected reported by participants.

²⁵ See extended paper section 8.2.5. for more details

Table 11.*Frequencies of codes relating to expectations reported as met or unmet*

	Code	Total Frequency Coded
Met Expectations		
	As expected	11
	Helpful care	3
	Good communication	2
	No assistance needed	1
	Preferences available	1
Unmet Expectations		
	Intervention needed	17
	Length of labor	16
	Medical complications	16
	Preferences unavailable	14
	COVID	14
	Emergency c-section	13
	Pain	12
	Birthplace	8
	Birth position	7
	Feelings	5
	Unhelpful care	3
	Timing	3
	Decision-making	2
	Poor communication	2
	Better than expected	1
	Accessed private healthcare	1

Participants tended not to report details about met expectations, with many responding with broad answers:

“... exactly as I had visualized.”

“...birth experience was as wanted.”

There were many more specific details reported about unmet expectations, with the most commonly reported reasons relating to intervention received, length of labor and medical complications:

“...had to try forceps.”

“I was in labor for over 3 days.”

“I suffered a postpartum hemorrhage.”

Table 12 provides example quotes for each identified code of the content analysis.

Table 12.*Codes relating to expectations reported as met or unmet alongside illustrative quotes*

	Code	Illustrative Quote
Met		
Expectations	As expected	“I felt it went as expected” “It was exactly as I had visualised”
	Helpful care	“...was really grateful to the midwives and the doctors who delivered the baby for being so calm and reassuring throughout the process”
	Good communication	“The midwives communication was great”
	No assistance needed	“I was happy I laboured without assistance”
	Preferences available	“got to use the birthing pool”
Unmet		
Expectations	Intervention needed	“I had to be induced” “...forceps and an episiotomy were required”
	Length of labour	“Delivery was much faster than I expected” “Very long labour (over 39 hours) where contractions stalled halfway”
	Medical complications	“Blood pressure too high, proteins in urine and blood”
	Preferences unavailable	“Some of my preferences were unavailable to me”

Code	Illustrative Quote
COVID	"COVID-19 also meant face masks and the father only being able to stay for a few hours after birth"
Emergency c-section	"...baby stuck in birth canal led to an emergency c section"
Pain	"...pushing was extremely painful"
Birthplace	"Originally I opted for a Home Birth however I was induced at 41+6 weeks and therefore gave birth in the Hospital"
Birth position	"Was adamant I wasn't going to give birth on my back but that's where I was most comfortable"
Feelings	"I also felt more disconnected when my baby arrived"
Unhelpful care	"Poor treatment by the NHS Staff"
Timing	"Waters broke spontaneously at 34 weeks"
Decision-making	"They didn't wait for my consent even when I asked to give me a bit time to make decision"
Poor communication	"...felt like communication whilst in hospital was quite poor"
Better than expected	"It went a lot better than I was expecting"
Accessed private healthcare	"I planned a homebirth with independent midwives due to local homebirth services being threatened"

Phase Two²⁶

The results are presented in two parts: deductive thematic analysis and inductive thematic analysis. Table 13 details Phase Two participants, their scores for birth satisfaction and PF. To ensure confidentiality and anonymity, participants were assigned pseudonyms.

²⁶ See extended paper section 8.3. for additional evidence for Phase Two results

Table 13.*Participants scores on birth satisfaction and PF and the type of birth they had*

Name ²⁷	Birth Type	Birth Satisfaction Score	Psychological Flexibility Score	
			Pre-birth	Post-birth
Emma	Unassisted vaginal birth	30	79	80
Ava	Emergency caesarean-section	32	112	105
Sophia	Unassisted vaginal birth	22	57	53
Isabella	Emergency caesarean-section	16	68	83
Mia	Unassisted vaginal birth	36	104	120
Evelyn	Assisted vaginal birth	32	94	93
Abigail	Planned caesarean-section	29	113	107
Zoe	Assisted vaginal birth	10	113	130
Scarlett	Emergency caesarean-section	32	108	100

²⁷ All names are pseudonyms to protect anonymity

Chloe	Planned caesarean-section	18	59	38
Vicky	Assisted vaginal birth	16	122	122

Deductive Thematic Analysis

Two themes (Psychological Flexibility and Psychological Rigidity) are discussed in relation to the skills or approach participants used in their sense-making of birth and how these helped or hindered the sense-making process.

Psychological Flexibility. This theme captures aspects participants reported as playing a role in their sense-making of birth that resembled the six core therapeutic processes of PF (Hayes et al., 2006). All participants described using skills resembling Committed Action. Despite being faced with the challenging context of birth, participants engaged in action in line with long-term meaningful goals and values:

... I felt in control. And I felt like when I was making decisions, it was me making them and people were respectful of that and were like - I had gas and air, I had the pool that I wanted, when I said I didn't want any more monitoring, I didn't have any more monitoring.
(Mia – unassisted vaginal birth)

Mia described actions of assertiveness including asking for what she wanted during birth as reasons why her birth went the way that it did. Her actions were guided by values around what she did or did not want during birth and enabled her to fulfil these values.

All participants described being in tune with their values as helping sense-making. Every participant mentioned the safety of themselves and the baby as the most important thing. Vicky described Values around safety alongside engaging in Acceptance:

I think ultimately whilst it didn't feel ideal as an experience, I know it was ultimately because it was the safest option and so in that respect obviously it went as well as it could do and the things that happened, I know happened for the best reasons even though it wasn't the most pleasant experience. (Vicky – assisted vaginal birth)

Vicky reported safety drove decisions made during birth. Although the safest options led to unpleasant experiences, she accepted this because her value of safety was prevailing over and above her wish for her “ideal” birth.

Many participants reported engaging in a skill resembling Contact with the Present Moment. Vicky described focusing on the here-and-now and flexibly shifting focus onto what was most useful in that moment:

But yeah, I think there were moments where I was feeling a bit frustrated and then the rest of the time, I think I was really just trying to focus on what was happening and staying as calm and relaxed as I could. (Vicky – assisted vaginal birth)

Having awareness of the here-and-now enabled Vicky to make sense of birth as it was happening.

Although many participants endured unwanted experiences, they all reported some form of acceptance towards this:

So, there's no point in being disappointed, because you're not going to gain anything from that. Like this is what has happened, and you can't change it, so you need to deal with it and process it and come to terms with it and move on. I think that sounds quite harsh, but just come to - there's no point dwelling on it because you can't change it. You just need to process it and come to terms with it. And I think I have done that. (Isabella – emergency caesarean-section)

Isabella describes opening up to unwanted feelings of disappointment and allowing herself to fully experience and process it. When this feeling no longer serves her, she Defuses by stepping back and detaching from it. Acceptance enables Isabella to make sense of her feelings towards birth. Defusion enables her to recognize disappointment then let go of it to prevent this feeling from dominating her sense-making.

Skills analogous to Defusion appeared in nearly all participants accounts of sense-making. Participants described separating themselves away from thoughts, images and memories:

Yeah, it's definitely less vivid... The memory of it, I think. It's not - if you think of like in color, when something happens it's really bright and obvious and they are very present. It's probably not anymore.
(Ava – emergency caesarean-section)

Ava acknowledges memories associated with her birth, but her sense-making involved enabling herself to hold these memories lightly.

Self-as-Context appeared in the majority of participants descriptions of sense-making. Sophia described how being able to notice how she is impacted

by her experiences enabled her to approach sense-making in the most useful way for her:

I'm a people pleaser. So, I listen to people's opinions and take them on board and try to find the best solution and by doing that I stress myself out because I tread on eggshells between one person and another. Because I'm trying to find the best middle ground. So, being able to just concentrate on how I felt, rather than how everybody else felt, for once in my life, was fabulous. (Sophia – unassisted vaginal birth)

Engaging her noticing-self facilitated sense-making as Sophia was able to fully attend to her experiences and process them without getting caught up in other's opinions.

Psychological Rigidity. This theme captures aspects participants reported as playing a role in sense-making of birth resembling the six core pathological processes of psychological rigidity (PR) (Hayes et al., 2006). Many participants described Inflexible Attention. Most participants reported this hindered sense-making:

So yeah, so I think it was - yeah so that's why I was trying to make sense of this like is that something that I've missed, it's like oh my

God because if I was under the gas, is that something that I didn't remember? (Zoe – assisted vaginal birth)

Zoe describes disconnecting and disengaging from her experience meant she was left feeling unsure of what happened and thus unable to make sense of it. On the other hand, Evelyn describes how disconnecting from her experience meant she was not aware of how poorly her baby was:

But I was just sort of laying back, drugged up on my epidural, with no idea what was really going on. So, for me, that all just sort of happened and I don't really have any particular feelings about it. (Evelyn – assisted vaginal birth)

Being unaware helped Evelyn's sense-making because she did not perceive the situation as life-threatening. The decision to have an epidural potentially impacted her awareness, however, it meant that she was able to make sense of what had happened because the threat response was not triggered, which might have clouded her thinking later on.

Unworkable Action appeared in many participants accounts of sense-making through descriptions of actions that were impulsive or reactive rather than driven by values-based living:

And then so the next day I was really pushing for them to discharge me when actually if he had been allowed in, I probably - I should have stayed a few days longer... Because, breastfeeding wasn't actually established, and I ended up having to be readmitted two days later. (Scarlett – emergency caesarean section)

Scarlett describes how her unwanted experience of being apart from her husband motivated unhelpful action. Her understanding of her birth is informed by the Unworkable Action.

Some participants reported Fusion was a hindering process in sense-making:

In a lot of ways, I think whilst...I tried not to have too many expectations...looking back I clearly did have kind of an idea that things would happen a certain way and there was certainly things that I wanted to avoid but that did happen. (Vicky – assisted vaginal birth)

Fusion meant Vicky held the idea of her hoped for birth so closely that she had the difficulty of working through the mismatch between expectations and reality of her birth experience.

A few participants described Fusion with Self-Concept whereby descriptions of themselves influenced sense-making:

I think it was probably my own fault, looking back. I think I wasn't strong enough to stand up to the healthcare professionals. (Isabella – emergency caesarean section)

Isabella fused with the negative self-description of not being “strong enough”. As a result, fusion influenced her sense-making of birth by concluding that it was her fault.

The two remaining core processes of PR are Experiential Avoidance and Remoteness from Values. The latter process was not found in any participants descriptions and Experiential Avoidance was only found in Zoe's descriptions:

But at some point, like I just don't want to go back. I just don't want to go to this place. Yep, I don't want to, I just don't want to. (Zoe – assisted vaginal birth)

Zoe described feeling confused about some aspects of birth and therefore wanted to read her notes to answer questions. However, she was engaged in Experiential Avoidance in that she did not want to return to hospital in fear of unwanted feelings this might bring up for her.

Inductive Thematic Analysis

Five themes were constructed in relation to what participants described as helping or hindering sense-making: Support & Care, Choice/Control, Personal Processes, Preparedness and Birth Processes.

Theme 1: Support & Care. Participants described how support and care, or lack thereof, helped and/or hindered sense-making.

Subtheme 1.1: Communication. Communication was mentioned by nearly all participants. It appeared to be an important aspect of sense-making as those who mentioned communication placed emphasis on it being a dominant factor:

But I think at the time because like things were being communicated quite well by that one doctor throughout - immediately post-birth but like that meant that I felt safe enough and reassured enough that it wasn't an experience which was kind of a traumatic experience for me and yeah, I've not kind of avoided thinking about any of those things or anything. (Vicky – assisted vaginal birth)

Vicky reflected on how having information explained meant she was better able to process and accept what was happening during birth. Communication

enabled her to engage in further sense-making processes (thinking). Good communication helped sense-making; poor communication hindered it:

I completely was aware that OK things might not go the way I want but let's communicate of the situation, right? She didn't do that, so that's why my husband was confused, I was confused. (Zoe – assisted vaginal birth)

Lack of communication left Zoe unable to make sense of why things were happening that she hoped would not. Where communication lacked during birth, a post-birth debrief has potential to fill in gaps:

... also, the surgeon came round afterwards, and he said, it was definitely the right decision. When I got him out the cord was definitely round his head. So, that was kind of good. (Ava – emergency caesarean-section)

For Ava having a debrief consolidated sense-making, whereas for Zoe the absence of debrief further hindered hers:

But no-one actually came over, no-one talk about things... I would love to know why this happened and why the outcome was like this. (Zoe – assisted vaginal birth)

Subtheme 1.2: Influence of others. All participants believed other people played a role in sense-making. Receiving support from specific others during labor enabled participants to remain focused on birth and thus able to process what was happening in the here-and-now:

The Doula who supported myself, also supported my husband to support me... I don't think it would have been positive had the Doula not been there. (Sophia – unassisted vaginal birth)

Sophia describes how useful and practical support helped sense-making. Others reported that helpfulness of support depends on the context it occurs within and how it is delivered:

I find mums in particular, quite competitive and I think with something like NCT [National Childbirth Trust] where you're with people that aren't necessarily your friends... I'm not sure - that probably wouldn't have helped feeling like I could really talk about it or that I was being judged. (Mia – unassisted vaginal birth)

An unhelpful competitive culture around childbirth may hinder sense-making as it acts as a barrier to engaging in further sense-making processes (talking).

Subtheme 1.3: Healthcare. Nearly all participants mentioned how an aspect of healthcare received during birth impacted sense-making. A calm, empathic and validating approach to healthcare was helpful:

I felt really well looked after and that people really understood that actually this is a rubbish situation and they just tried to make it as positive as they could really. (Abigail – planned caesarean-section)

Healthcare that is cold, unsupportive and dismissive hinders sense-making. Emma described how a midwife's response to her pain was hindering:

I just remember being - I just don't know what to do with myself. And I don't really know what I expected her response to be, but she literally just shrugged her shoulders and went, well what do you want me to do about it? ... when I got home I was just a bit - I sort of - not dwelled on that a bit but I really thought about that. (Emma – unassisted vaginal birth)

Subtheme 1.4: Talking. Talking was mentioned fruitfully, with many participants reporting talking playing an important role in sense-making:

So, I think by talking it through with my partner was probably the most helpful thing. (Scarlett – emergency caesarean-section)

So, it's been fine because I've been lucky enough to have a couple of other people, three friends or so and my husband and obviously I've spoken about it with my therapist as well, so yeah, I've felt like I've been able to process it through that. (Mia – unassisted vaginal birth)

Talking offered opportunity to organize information and form a sense of coherence of what happened during birth:

I think that [talking] was quite helpful and obviously you end up remembering things properly kind of you perhaps didn't make that much sense of it at the time because so much - actually so much happened in those kind of three days, that you almost don't remember the series of events until you've told the story a few times. (Vicky – assisted vaginal birth)

Theme 2: Choice/Control. This theme captures the notion that being empowered and feeling in control during birth helps sense-making. Making your own choices or decisions provides time and space to think and process in real-time:

I think just the fact that I felt in control the whole time and I knew what I was doing, and I was allowed to kind of get on with it and I felt able to say no. (Mia – unassisted vaginal birth)

Feeling pushed or coerced into decisions can result in second-guessing decisions and feeling rushed prevents sense-making taking place:

...they said, OK, do you consent to do deliver her and they didn't even wait that I answer and I was like trying to say and I said a couple of times to them could you wait? Could you please - no they didn't really waited, they just - they were doing things. (Zoe – assisted vaginal birth)

Theme 3: Personal Processes. Many participants described processes that were personal to them as playing a role in sense-making.

Subtheme 3.1: Mindset. Nearly all participants reported having a positive, strong mindset enabled them to put things into perspective. Mindset facilitated sense-making processes that helped to see birth from a more beneficial point of view:

... if the worst thing that happened to me in my whole birth experience was that I have to feed my baby with nipple shields, I've got off pretty lightly. (Evelyn – assisted vaginal birth)

However, time and space were needed for these mindset processes to take place:

I had time to think about it in the week or two after my daughter was born and it amazes me what women's bodies can do. (Sophia – unassisted vaginal birth)

Subtheme 3.2: Attributes. Many participants believed that personal attributes such as personality and professional experience played a part in sense-making. Scarlett believed her personal style of approaching situations enabled her to be neutral in her sense-making:

I definitely think there's a personality element to it where, I don't know, just being a bit more relaxed about things like that. (Scarlett – emergency caesarean-section)

Professional experience and knowledge of birth helped understanding birth processes. Likewise, professional experience and knowledge of sense-making processes (i.e., psychological models or theories) also helps:

... having those conversations, making sense of it, putting it to one side rather than just going over it again I think is probably one of the main things that I knew to do as a psychologist, I guess. (Vicky – assisted vaginal birth)

Subtheme 3.3: Internal processes. The beliefs, thoughts and emotions an individual has was reported as playing a role in sense-making in all participants. On the whole, internal processes, such as being led by your own thoughts about what is best for you and your baby, were reported as helping sense-making:

So, my full waters broke when I was at home and we had to go to hospital to get it checked and I remember them telling me that they didn't think they'd broken and then they checked and they definitely have and I was like, a mother's instinct, I knew what was going on. (Scarlett – emergency caesarean-section)

Being led by internal processes needs to be done with caution. Isabella reported that having trust in professionals led her to believe what was happening was best for her:

But when you're there, lying on a table, you just kind of go with it and trust that these people know what they're doing, it's their job, it's their career and you trust that they know what they're doing. It's

not until after that you look back and analyze and think actually no that wasn't right and that shouldn't have happened. (Isabella – emergency caesarean-section)

On reflection Isabella realized that this trust misled her and hindered sense-making.

Theme 4: Preparedness. This theme encompasses the idea that steps you take to prepare for birth and expectations you form influence sense-making. Preparing for birth provides knowledge that helps you to know (roughly) what to expect:

The NCT class was really good because the lady there did explain what would happen in a caesarean, how many people would be in the room, what job they would do. So, that wasn't a surprise to me. (Ava – emergency caesarean-section)

Knowing what to expect from a caesarean-section meant Ava was able to quickly make sense of what was happening in what would have otherwise been an overwhelming situation.

It appears that preparation can only take you so far because birth is so unpredictable:

It [birth] was traumatic...I tried to get myself prepared, watched One Born Every Minute, speak to my mum, read all the books. But nothing actually prepares you... (Isabella – emergency caesarean-section)

Isabella reported experiencing unexpected situations, which hindered sense-making through confusion and shock at what happened:

I wasn't expecting so many people in the room. I thought it would just be one midwife, me, my husband and my mum, but there wasn't. We had consultants in, we had a student midwife... (Isabella – emergency caesarean-section)

It could also be possible that the quality of birth preparation is important, which may explain why Ava found birth preparation helpful, yet Isabella did not.

Theme 5: Birth Processes. This theme captures how processes relating to the birth influenced sense-making.

Subtheme: 5.1: Labor. Processes relating to labor such as induction, pain, baby's positioning and exhaustion were mentioned as part of sense-making by nearly all participants:

My main thing that I have in my head as to why it went the way it did is that it was because her head was at the wrong angle. (Scarlett – emergency caesarean-section)

So, I then ended up having an epidural because it was really painful being on the [induction] drip. (Vicky – assisted vaginal birth)

Having knowledge about labor processes enabled participants to draw conclusions about why something was happening.

Subtheme 5.2: Medical challenges. Many participants were able to draw conclusions in sense-making from information about medical challenges:

I knew that [water birth] wasn't going to happen because I know I couldn't have that after I found out I was diabetic. (Emma – unassisted vaginal birth)

But because of the risk of infection I understand why they delivered at 37 weeks. (Evelyn – assisted vaginal birth)

Access to information (through communication and preparation) proved vital to helping sense-making.

Impact of COVID-19

Many participant's birth experiences were impacted by the COVID-19 pandemic. Factors relating to COVID-19 were the fourth most commonly reported reasons as to why expectations of birth were unmet (Table 11). The interviews highlighted COVID impacted sense-making through isolation as hospitals restricted when birth partners could attend²⁸. Restrictions prevented some participants from having receiving support from and talking to others:

When [partner] had gone and I was still at the hospital, it would have been beneficial if he had been there or someone had been there just so I could say, bloody hell what have I just gone through and just to talk about it. (Scarlett – emergency caesarean-section)

Likewise, the UK's lockdown restrictions limited some participants opportunities to talk about birth experiences:

I feel like we've not had that [opportunity to talk], and I haven't really spoke about it if that makes sense. And now the time's passed people aren't really interested. (Emma – unassisted vaginal birth)

²⁸ This has since changed, but restrictions were in place for the participants in the present study

The uncontrollability of COVID-19 also impacted sense-making:

But I guess I've never sort of in a million years expected to be having babies during a pandemic, so I don't know how you can kind of psychologically prepare for something like that anyway. (Abigail – planned caesarean-section)

The inductive theme Preparedness demonstrates that being prepared for birth may help sense-making and therefore it is unsurprising that COVID-19's unpredictable nature hindered sense-making.

4. Discussion

This study had three research aims: (1) To explore the relationships between PF, birth satisfaction and birth, (2) To explore whether women report PF-related skills as playing a role in sense-making of birth, and (3) To explore what aspects women describe as helping and/or hindering sense-making of birth.

The Phase One results showed no significant relationship between PF and birth satisfaction and yet PF-related skills were reported in many participant's accounts of sense-making in Phase Two. The discrepancies between quantitative and qualitative findings could be explained by a number of factors.

Firstly, there may be a potential measurement and conceptual limitation to birth satisfaction which means that having high levels of PF does not increase birth satisfaction (as understood by the BSS-R), instead it increases a person's ability to accept birth. It was hypothesized that PF would moderate birth satisfaction when birth did not go as expected but as no significant relationship between PF and birth satisfaction or birth expectations was found it was not possible to conduct this type of analysis. In line with ACT's model of PF (Hayes et al., 2006), a person with high PF would be able to shift perspective and adjust expectations according to the context of the birth they are in. This was not the case for participants in this study. It is possible that the role of PF was not in shifting expectations to increase birth satisfaction, instead, PF enabled a person to accept their birth. A person with the ability to flexibly accept their birth could be better able to live meaningful life goals, for example, by enacting values of parenthood important to them. A person unable to accept their birth might engage in unhelpful behaviors such as rumination, which hinders their ability to engage fully in their values of parenthood. Thus, there may be notable distinctions between the concepts of satisfaction and acceptance²⁹.

Secondly, there could be important nuances involved in the concept of birth satisfaction that are not currently captured in the BSS-R. The BSS-R understands birth satisfaction is related to three domains: (1) quality of care, (2)

²⁹ See extended paper section 9.1. for more details

women's personal attributes, and (3) stress experienced during labor (Hollins & Martin, 2014). The present study's findings suggest a more nuanced understanding of birth satisfaction, one involving the concept of acceptance. Considering the meaning of acceptance as is understood in ACT, we can understand it as "the active and aware embrace of those private events occasioned by one's history without attempts to change their frequency or form" (Hayes et al., 2006, p. 7). Birth satisfaction may involve acceptance which encompasses active engagement in sense-making. A nuanced understanding of birth satisfaction could explain why participants in the present study described PF-related concepts in the qualitative interviews.

Third, although the CompACT is shown to have high validity (Francis et al., 2016), its validity depends on a person's reflective capacity and ability to identify internal experiences. There might be particular difficulties with reflective capacity post-birth as well as other factors such as lack of sleep. The interview process may facilitate reflection in a way that a questionnaire is unable to do. Interview processes cannot be static or neutral, they are active and enable production of knowledge through dialectical processes of questioning (Brinkmann, 2013)³⁰. Participants in the present study may have constructed narratives during the interview, which formed part of their sense-making of birth not captured in the CompACT, or BSS-R they completed prior to interview.

³⁰ See extended paper section 9.3. for more details

Sense-making processes could be important nuances that explain why, even in the context of risk factors, some women go on to develop difficulties such as birth trauma and postnatal depression, and others do not (Ayers et al., 2016; Norhayati et al., 2015)³¹.

The idea that the interview process plays a role in enabling reflective capacity is supported in the Phase Two findings. The theme 'Support & Care' highlighted the role of others, whether that be talking to others, receiving support from others, or influence of others, facilitates sense-making in birth. The interview process involved some of this, for example, through providing opportunity to talk and receiving validation from the interviewer. The present study highlights that not only is the birth experience a crucial time for women to feel supported and cared for but the few weeks after birth is also a crucial time for supporting women through sense-making processes. The latter was emphasized in this study as participants' access to support was hindered by COVID-19 restrictions.

All of the above supports the present study's methodology as a two phase, mixed methods design. Had the study relied on the quantitative findings of Phase One we would have rejected the hypothesis that PF plays a role in birth satisfaction. Phase Two enabled us to examine those findings in more detail and as such, we have been able to recognize the importance of nuance in the context

³¹ See extended paper section 9.2. for more details

of birth satisfaction and a need for better understanding the concept of birth satisfaction. Additionally, we identified the need for better understanding of how PF can facilitate sense-making in birth and how PF may influence trajectories of mental health problems relating to birth experience.

We found that the more participants felt their birth expectations were met, the more satisfied they were with birth. We expected to find this as previous research indicates that having unmet birth expectations is more likely to result in birth dissatisfaction (Hauck et al., 2007). We hoped to explore this further by conducting moderation analyses to examine whether those with high PF had higher birth satisfaction despite unmet expectations than those who were low in PF. However, due to the absence of a significant relationship between birth satisfaction and PF it was not possible to explore this.

Further, we found that participants who had non-assisted vaginal births were more satisfied with birth and more likely to have expectations met compared to those who had assisted vaginal births, planned or emergency caesarean-sections. At first glance these findings appear to indicate that non-assisted vaginal births are preferable to increase birth satisfaction, however, these findings should be interpreted with care. Research exploring women's perspectives on what aspects of birth contribute to unsatisfactory birth found that women rank many other aspects (e.g., lack of privacy and adverse medical events) as more important than type of birth (Edmonds et al., 2021). The present

study did not explore other aspects as type of birth was collected to provide context to birth expectations and not a variable in birth satisfaction. This finding should be considered within the context of existing literature where findings on the impact of having a non-preferred type of birth are inconsistent (Fenaroli et al., 2016; Hellmers & Schuecking, 2008; Kempe & Vikstrom-Bolin, 2020).

Many participants described PF-related skills as playing a role in helping sense-making. For example, having ability to allow unwanted experiences if that experience leads to fulfilling long-term goals and values enabled women to accept birth, even when birth was not what they hoped. They also described psychological rigidity as hindering sense-making. Women who held onto thoughts and feelings relating to birth even when this was no longer serving them had difficulty making sense of birth. PF appears to be an important aspect of sense-making in birth. The inductive findings show that sense-making is not confined to PF processes but involves many complex processes³². Participants reported aspects as influencing sense-making, such as quality of communication, medical challenges and talking to others. PF-related skills may help individuals' sense-making, but an environment where women feel support, cared for, in control, have access to education and opportunity to talk to others is fundamental in enabling the sense-making process.

³² See extended paper section 9.4. for more details

Clinical Implications³³

The findings of this study comprise part of a developing literature base aimed at better understanding how women make sense of birth and what helps them to feel more satisfied with birth. As this area of research advances it could go on to inform clinical practice and potentially transform the way maternity services care for birthing people in the UK. The findings could suggest changes to maternity care including providing antenatal education on birthing processes and improving communication in healthcare providers. Suggestions for postnatal care could involve facilitating opportunities for sense-making post-birth, possibly through conversations with healthcare providers.

The present study's findings suggest that PF is worthy of further interventional experimentation in a perinatal context. Further understanding of the role of PF in birth experiences may lead to incorporating ACT interventions into maternity care and perinatal mental health services to prevent and treat mental health difficulties relating to birth.

Limitations³⁴

³³ See extended paper section 9.5. for more details

³⁴ See extended paper section 9.6. for more details

It is acknowledged that Phase One was underpowered; a power calculation indicated a sample size of 77 was required to ensure power $>.80$ and 68 completed T2 measures. Nevertheless, Kendall Tau's correlation coefficients for Birth Satisfaction and pre-birth and post-birth PF were .143 and .064 respectively (Table 7). Although this result shows a positive relationship between birth satisfaction and PF, the correlation is negligible and non-significant. Had there been 9 more participants, all of which scored high on birth satisfaction and PF, it is unlikely to have pushed the results into significance. As such the study's results should be approached with caution but not dismissed on the basis of an underpowered sample.

The sample is limited in its generalizability as it comprised a large majority of white women working professional jobs. It is possible this was due to recruiting through social media, in particular, Instagram. Perhaps this population are more likely to follow accounts posting information about pregnancy, birth and motherhood. It could also reflect the accessibility of research participation for women outside of this population as similar demographics are reported in other research into birth experiences (Fair & Morrison, 2012; Goodman et al., 2004; Green & Baston, 2003; Hauck et al., 2007). This emphasizes the need for improved methods of recruitment, education on the importance of research participation and specific research targeting underrepresented populations.

As previously discussed, the outcome measures used in Phase One may have been affected by postnatal factors such as lack of sleep. Furthermore, there are some possible conceptual limitations to the BSS-R that might have restricted the study's ability to identify relationships between PF and birth satisfaction.

Further Research³⁵

The findings of this study could be built upon by exploring the function of acceptance in birth satisfaction and its relationship with perinatal and/or parental wellbeing. Such research would help to understand the nuances in how we conceptualize birth satisfaction and how these relate to wellbeing in the perinatal period. As the findings suggest providing antenatal education on birth processes could be helpful, future research could explore the feasibility and usefulness of brief antenatal educational interventions. Should future research support the notion that PF plays an important role in birth experience then further research could explore the effectiveness of brief PF-based interventions on wellbeing in the perinatal period.

The present study was unable to conduct moderation analyses to examine whether the relationship between PF and birth satisfaction is moderated by birth expectations due to a lack of significant relationship. Future research could

³⁵ See extended paper section 9.7. for more details

conduct such moderation analyses if using different measures of birth satisfaction and/or psychological flexibility. Further, research could explore postnatal factors that interfere with reflective capacity when completing PF measures in the context of birth such a time after birth and lack of sleep. There appears to be limited research into the cognitive functioning of the birthing person in new parenthood and how this might impact research participation and findings relating to the early postnatal period.

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EXTENDED PAPER

6. Extended Background

6.1. Psychological Experience of Birth

The psychological experience of birth is extremely important for a woman's subsequent wellbeing and having a negative experience of childbirth is a strong risk factor for development of post-natal post-traumatic stress disorder, or birth trauma (Ayers et al., 2016; Ayers et al., 2006; Dekel et al., 2017; Grekin & O'Hara, 2014). Up to 60% of women are thought that have had a negative experience of birth (Svanberg, 2019). The impact of a negative birth experience is also known to have other serious implications including anxiety, depression, difficulties breastfeeding, problems with the parent-infant bond as well as subsequent fear of childbirth (Bell et al., 2016; Brown & Jordan, 2013; Elmir et al., 2010; Storksen et al., 2013). Therefore, a negative experience of childbirth can have huge implications for both individuals, their families and society.

Research has shown that risk factors associated with a negative birth experience include medical complications, feeling unable to cope with pain, having an assisted vaginal birth or unplanned caesarean section, lack of support during labour and lack of control (Bryanton et al., 2008; Nystedt & Hildingsson, 2018; Rijnders et al., 2008; Rowlands & Redshaw, 2012; Waldenstrom et al., 2004). A systematic review looked at the factors affecting a negative experience of birth and reported that lack of control is one of the most significant factors associated with negative birth experience (Hosseini Tabaghdehi et al., 2019). Although this study provided some insight into factors relating to a negative birth experience, its quantitative design risks oversimplifying birth experiences. Pre-operationalising factors relating to negative birth experiences risks omitting other, potentially more important, factors. Further, there is a risk that the nuance behind these factors, such as lack of control, could have been missed. Nuance provides context and explanations for why these factors are important and arguably, the nuance is central to driving real change in maternity care.

Subjective experience of birth can change over time, although research in this area is varied. Some research has reported that individuals' reports become less positive in the long term compared to soon after birth (Conde et al., 2008; Maimburg et al., 2016). Other research has reported that birth perceptions over time depend on whether the birth was initially perceived as positive or negative, in that individuals who report a negative birth soon after birth are more likely to retain a negative perception two years after birth (Stadlmayr et al., 2006). One research study explored almost 2,500 subjective birth experiences in a longitudinal cohort study (Waldenstrom, 2003). Waldenstrom (2003) found that the majority (60%) of perceptions of birth remained the same from two months post-birth to one-year post-birth. The variation in findings highlight the complexity of subjective experience of birth and that they are often unique to an individual. One thing that these studies do have in common is that the initial few days and weeks after birth are a vital time for when women are making sense of their birth and therefore is likely to be a time when perceptions of birth are changeable. It is therefore recommended that research exploring perceptions of, or satisfaction with, birth have an appropriate time lag between birth and measuring perceptions (Sawyer et al., 2013; Waldenstrom, 2004).

Birth experiences have been shown to differ for those giving birth for the first time (nulliparous) and those giving birth for a subsequent time (multiparous) (Henriksen, Grimsrud, Schei, Lukasse, & Bidens Study, 2017). Henriksen et al. (2017) found that individuals who were multiparous were less likely to report a negative birth experience. Similarly, Waldenstrom (1999) found that having a baby for the first time was associated with negative birth experience. It is unclear why being nulliparous increases the likelihood of a negative birth experience, as research has suggested various reasons. These varied reasons range from the increased risks of medical complications in nulliparous individuals (Batinelli et al., 2018; Hurt et al., 2006; Wilson & Homer, 2020), to how healthcare professionals may treat nulliparous women differently to multiparous (Ayers & Pickering, 2005).

6.2. Birth Expectations

It has been reported that nulliparous individuals are more likely to have their expectations unmet, whereas multiparous individuals report adjusting their expectations based on previous birth experiences (Hauck et al., 2007). More specifically, Hauck et al. (2007) reported that nulliparous individuals are more likely to experience birth negatively due to unmet expectations. Furthermore, it has been reported that nulliparous individuals are more likely to expect to experience a negative birth compared to multiparous and nulliparous are more likely to go on to experience their birth as negative (Ayers & Pickering, 2005).

Sense of control in birth is linked to the subjective experience of birth in that higher perceived sense of control is associated with less severe recall of pain and more positive emotions related to birth (Preis et al., 2019; Tinti et al., 2011). Furthermore, nulliparous individuals are less likely to feel in control in birth than multiparas and having a higher sense of control is linked to more satisfaction with birth (Green & Baston, 2003). Having a lack of control in birth is associated with negative birth experiences and is a risk factor for birth trauma (Harris & Ayers, 2012). Likewise, perceived control during birth is associated with birth satisfaction and lower levels of post-natal depression (DeLuca & Lobel, 2014; Fair & Morrison, 2012). Green and Baston (2003) explored the conceptualisation of 'control' in birth to distinguish between internal and external control. They found that external control related to being respected and considered by healthcare staff and internal control related to aspects of pain and their behaviour. Furthermore, feeling controlled by healthcare staff was the most significant factor relating to satisfaction with birth.

A birth plan is a document written by a woman detailing what they would like to happen during and after birth (NHS, 2018). The use of birth plans remains to be an area of debate. Some studies report the use of birth plans is associated with less satisfaction in birth and a lower sense of control (Afshar et al., 2015). Others have reported higher satisfaction with birth in those who have a birth plan, however, quality of research is low in this area (Mirghafourvand et al., 2019). Women have reported that birth plans facilitated conversations about their options for birth and thus enabled them to feel more in control during birth (Divall et al., 2017). However, in this same

study women reported that planning a birth can be problematic in that it rarely goes to plan, which can lead to feelings of disappointment (Divall et al., 2017). Furthermore, one study reported that midwives can experience birth plans as irritating and causes them to feel pressured because of requests for things that are not in line with hospital policies and procedures (Welsh & Symon, 2014).

6.3. Perinatal Mental Health

As previously noted, the psychological experience of birth can lead to mental health difficulties (Ayers et al., 2016; Bell et al., 2016; Brown & Jordan, 2013; Elmir et al., 2010; Storksen et al., 2013). There is a focus in the literature on post-natal post-traumatic stress disorder, or birth trauma, and there are criticisms that this focus has led to other important concerns being overlooked (Coates et al., 2014). A study using Interpretative Phenomenological Analysis on interviews with individuals who had recently given birth highlighted the complexity of emotional experiences following birth (Coates et al., 2014). They found that individuals reported distancing themselves from unwanted emotions such as guilt and self-blame as well as reporting feeling uncared for by the healthcare system.

6.4. Birth trauma

The term 'birth trauma' describes the psychological experiences of Post-traumatic stress disorder (PTSD) in the context of birth, including events surrounding birth such as pregnancy and after birth (Svanberg, 2019). Therefore, birth trauma often involves symptoms of PTSD such as avoidance, re-experiencing and negative thoughts (Ayers et al., 2018). Despite much of the literature focusing on birth trauma, it is still a relatively new area of research and birth was only recognised as an event associated with PTSD in 2014 (Svanberg, 2019). The reported prevalence of birth trauma varies, with reports ranging from 4.6-16.8% of women going on to develop symptoms of PTSD (Dekel et al., 2017).

Birth trauma can have serious implications for both the wellbeing of the woman (Nicholls & Ayers, 2007; Yonkers et al., 2014) and their infant (Parfitt et al., 2014). The World Health Organization (WHO) has identified maternal mental health as being a global priority for health services and research (World Health Organization, 2018). A meta-analysis carried out by Ayers et al. (2016) examined risk factors associated with birth trauma. They reported that depression in pregnancy was the highest pre-birth risk factor and the factor most highly related to birth trauma was a negative subjective experience of birth. Similar findings have been reported elsewhere, for example, a systematic review found that subjective distress during labour is highly associated with birth trauma (Andersen et al., 2012). These studies have highlighted the psychological appraisal of the birth experience as an important factor in the development of birth trauma, whilst also highlighting that it is a complex experience influenced by several factors and is not restricted to only the birth itself.

A systematic review examined the existing literature that explores how women are treated during birth in healthcare services across the world (Bohren et al., 2015). Bohren et al's (2015) findings showed that the care that some women receive involves mistreatment including abuse and neglect. Moreover, mistreatment occurs within interactions between healthcare staff and women as well as systemic failures including poor management structures and inadequate staffing levels. Harris and Ayers (2012) explored intrapartum 'hotspots' in relation to individuals experiences of traumatic birth and found that lack of control and lack of support were highly associated with diagnosis of PTSD following birth. Both of these factors (lack of control and lack of support) involve aspects of how they have been treated during birth. These results highlight that care received during birth is a complex factor and one that may be contributing to negative birth experiences and birth trauma.

6.5. Postnatal depression

A recent systematic review reported that the prevalence of postnatal depression (PND) is around 18% (Hahn-Holbrook et al., 2018). PND is associated with detrimental effects to the woman, their infant and families, including difficulties with parent-infant

bonding (McMahon et al., 2006), complications with breastfeeding (Dias & Figueiredo, 2015) and compromised caregiving (Field, 2010). Factors associated with PND are complex as they are wide ranging and unique to the individual, for example, previous depressive episode, stressful life events and lack of social support can all contribute to the development of PND (Norhayati et al., 2015). Importantly for the present study, the onset of PND has been linked to having a negative birth experience (Bell & Andersson, 2016; Xiao-hu & Zhi-hua, 2020). However, research quality on this topic is low. The literature on PND is extremely varied, which reflects the complexity of the perinatal period and the need for further research in this area.

6.6. Psychological Flexibility and Acceptance and Commitment Therapy

Psychological Flexibility (PF) is understood to be the underlying mechanism of change within Acceptance and Commitment Therapy (ACT; Hayes et al., 2006). PF involves a number of psychological skills (the six core processes as mentioned previously; Appendix B), and ACT aims to increase one's ability to use these skills (Harris, 2019). PF has been shown to act as a buffer against the development of depressive symptoms associated with major life events, which suggests it plays a protective role against psychopathology (Fonseca et al., 2020). As mentioned previously, Psychological Rigidity (PR) involves six core pathological processes (Appendix C). PR has been linked to a number of mental health difficulties, including depression, anxiety and PTSD (Bardeen & Fergus, 2016; Kashdan & Rottenberg, 2010; Meyer et al., 2019; Miron et al., 2015; Morris & Mansell, 2018; Tavakoli et al., 2019). Furthermore, a meta-analysis has shown that ACT can be an effective treatment for several difficulties including anxiety, depression, chronic pain and addiction (A-Tjak et al., 2015).

6.7. PF and ACT in a perinatal context

The literature base exploring the role of PF in a perinatal context and the literature exploring ACT-based treatments in perinatal populations is sparse. The

sparsity of research possibly reflects that ACT is still a relatively new therapy, that was first published in 1999 (Hayes et al., 1999). Alongside the age of ACT as a possible reason for the sparsity of research is that much of the research surrounding psychological processes in perinatal contexts has focused on birth trauma in recent years (Coates et al., 2014). Nevertheless, there have been some interesting and promising findings relating to PF and ACT in a perinatal context.

Firstly, the role of PF has been explored in one study looking at the relationship between dysfunctional beliefs towards motherhood and depression and anxiety symptoms (Fonseca et al., 2018). Fonseca et al. (2018) found that high levels of psychological inflexibility was strongly associated with high levels of anxiety and depression in postnatal individuals. They also found that dysfunctional beliefs relating to judgements from others and responsibility were associated with high levels of psychological inflexibility, but dysfunctional beliefs about role idealisation were not. These results are interesting as they highlight a possible link between fusion to unhelpful thoughts and perinatal mental health problems. However, the notion of dysfunctional beliefs towards motherhood may be culture-specific and therefore may not be generalisable to perinatal populations outside of a western culture.

Secondly, research has found that PF could be a protective factor in those individuals who are 'at-risk' of developing depression and anxiety symptoms post-birth (Monteiro et al., 2019). Monteiro et al. (2019) examined the relationship between depression and anxiety symptoms and PF and postnatal negative thoughts and found that individuals who were 'at-risk' were less likely to develop depression or anxiety symptoms if they had high levels of PF. This study's results are promising and point to the possibility of using ACT-based treatments in pregnancy to prevent the development of perinatal mental health problems. However, further research is needed to corroborate these findings.

Thirdly, a recent study has explored the relationship between psychological flexibility and labour outcomes (Asali et al., 2020). The results of this study suggest that individuals with higher levels of PF are more likely to have a vaginal birth, as

opposed to an assisted vaginal birth or caesarean section, than those who were lower in PF. However, there are notable limitations to this study. For example, participants were required to have received an epidural when completing the measures and there is no explanation for why this was. Moreover, participants were asked to complete the post-birth measure within 2 hours of giving birth, which could have significantly limited their opportunity to reflect on what happened during birth and thus impacted the reliability of their self-reports.

There are a few studies that have examined the effectiveness of ACT interventions in perinatal populations. Vakilian et al. (2019) examined the effectiveness of ACT on reducing anxiety and improving quality of life in a group of pregnant individuals. They found that anxiety significantly decreased following the ACT intervention but quality of life worsened. The sample did not include individuals diagnosed with a mental health problem and the inclusion criteria did not require the participants to be experiencing anxiety and therefore these results cannot be generalised to a clinical population. Nevertheless, the results are encouraging and warrant further research into the effectiveness of ACT on anxiety in pregnancy.

Tunnell et al. (2019) explored the acceptability and feasibility of a brief acceptance-based therapy in a hospital setting. They administered the intervention on a sample of individuals who had been admitted to hospital with preterm premature rupture of membranes over a seven-day period. Their results showed that PF remained high and depression, anxiety, distress and trauma symptoms remained non-clinical at one-month follow up. These results suggest that a brief acceptance-based therapy is feasible and acceptable and further research should examine the effectiveness of the intervention in a clinical sample. Additionally, a group ACT intervention for perinatal low mood and anxiety has been developed and shows promise for future investigation of its effectiveness (Bonacquisti et al., 2017).

More recently, the feasibility and effectiveness of an ACT intervention developed specifically for the perinatal context was examined (Waters et al., 2020). Waters et al. (2020) delivered an eight-week ACT intervention to a sample of women

accessing a perinatal mental health service. Their results showed that the ACT intervention significantly reduced distress and depressive symptoms and increased PF and the majority of participants had either recovered or reliably improved. Research examining PF and ACT-based interventions in a perinatal context is promising but study quality is low and further research is needed including randomised controlled trials to fully establish the role that PF has in the perinatal period.

6.8. Context

The World Health Organization (WHO) has declared that maternal mental health is a global and major public health concern due to the high percentage of pregnant and postnatal individuals developing mental health problems in high-, middle- and low-income countries (World Health Organization, 2020). WHO have also identified maternal mental health as being a global priority for health services and research (World Health Organization, 2018). In England, the NHS has taken action towards prioritising maternal mental health services and research by including it in the Five Year Forward View for Mental Health (Mental Health Taskforce, 2016). The NHS has set out to increase access to specialist perinatal mental health support across England through funding additional services and a highly skilled workforce, aimed at meeting the needs of an additional 30,000 individuals by 2021 (NHS England, 2016).

The Maternal, Newborn and Infant Clinical Outcome Review Programme are commissioned to conduct enquiries into maternal deaths and morbidity and the reports, known as MBRRACE-UK (Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK) are published annually. The most recent MBRRACE-UK report has identified multiple and complex problems within maternity services that contributed to the deaths of 217 individuals between 2016-18 (MBRRACE-UK, 2020). The report details a number of priorities regarding health concerns and medical complications in the pregnant person, many of which relate to and impact the birth itself and highlights the need for improvement in maternity services across the UK. It is obvious from the recommendations and actions taken from WHO, the NHS and MBRRACE-UK that there are global and wide-ranging

systemic issues in maternity care for both the physical and mental health of people in the perinatal period. These issues point to the need for improved quality and quantity of research into issues surrounding the perinatal period.

As expected, the concerns about maternity care are increasingly being talked about in UK society. A social media campaign called 'Make Birth Better' was launched in 2017 by a Clinical Psychologist in response to the number of women reporting that they found some aspect of their birth traumatic (Svanberg, 2017). In 2017, The Birth Trauma Association launched 'Birth Trauma Awareness Week' (The Birth Trauma Association, 2020), which now runs annually and has gained significant media coverage, including articles from The Guardian (Anonymous, 2017) and BBC News (Parkinson, 2017). Campaigns and media coverage such as these are bringing attention to the issues surrounding maternity care and importantly, are providing more and more opportunity for women to share their voice.

6.9. Terminology

In 2019 the Merriam-Webster's dictionary made the word "they" their 2019 word of the year (Merriam-Webster, 2019). Merriam-Webster (2019) reported that in 2019 searches for "they" increased by 313% and that this reflects the increasing use of "they" as a pronoun to describe someone who identifies as nonbinary or used in the absence of knowing a person's preferred pronoun as it is a gender-neutral singular pronoun. The American Psychological Association (APA) followed suit in their publication of the seventh edition of the APA manual, which recommended the use of "they" as part of APA Style as a move towards increasing inclusivity in publications (American Psychological Association, 2019).

Brighton and Sussex University Hospitals (BSUH) made a recent move to supporting inclusivity in maternity services by changing the terminology they use to include trans and nonbinary people (Brighton and Sussex University Hospitals NHS Trust, 2021). BSUH have made additions to the terminology used in maternity services, for example they have moved from using "pregnant women" to "pregnant

women and people” and from “mothers” to “mothers and birthing parents” as defaults, although they aim to ask individuals their preferences where possible.

Using inclusive terminology is extremely important. Lesbian, gay, bisexual, trans, queer or questioning (LGBTQ+) people commonly report discriminatory and negative healthcare experiences, including professionals using inappropriate gender pronouns, and not having their problems taken seriously (Bonvicini & Perlin, 2003; Elliott et al., 2015). Discriminatory experiences such as these mean that LGBTQ+ people are less likely to access healthcare than heterosexual people and has created huge health inequalities (Zeeman et al., 2019). There are increased risks in the perinatal period for LGBTQ+ people due to the systemic problems relating to the attitudes and discriminatory practices in healthcare services (Maccio & Pangburn, 2012; Ross et al., 2012).

Terminology in the present study has been considered. Due to word limit constraints and the difficulty in using gender inclusive language to discuss published research that uses gendered terms, the present study uses the terms “women” and “mothers” throughout³⁶.

6.10. Extended Rationale and Study Aims

There is a clinical need to improve birth experiences in order to prevent the onset of perinatal mental health difficulties. Little is known about the way in which women make sense of their birth experience. PF-related skills may help individuals to adapt to an unpredictable birth and shift perspective in order to feel more satisfied with birth. Therefore, the present study aimed to explore the relationships between PF, birth satisfaction and birth expectations. Furthermore, it aimed to explore whether PF-related skills were described by women as playing a role in the sense-making processes of birth. Finally, it aimed to explore what aspects women describe as

³⁶ See extended reflections for further discussion on terminology

helping and/or hindering their sense-making processes. It was hoped that this would provide a better understanding of sense-making processes of birth. It was also hoped that this would inform clinical practice by suggesting ways in which services can adapt their practice to facilitate sense-making processes as well as inform future avenues for research in this area.

7. Extended Methods

7.1. Extended Study Design

Mixed methods research combines research approaches in a way that offers the best possible option for answering the research questions by adopting a pragmatic method (Johnson & Onwuegbuzie, 2004). Phase One of the study involved a number of quantitative measures and a narrative qualitative measure. Phase Two involved qualitative interviews. Phase Two offered an in-depth explanation of the results of Phase One through helping to further explore whether PF plays a role in helping women make sense of their birth.

Phase One was explored quantitatively through questionnaires aimed to measure PF and birth satisfaction and qualitatively through a narrative question about birth expectations. This involved the collection of data pre- and post-birth in a group of women to explore whether the level of PF a woman has moderates their appraisal of their birth experience. This is important as there is a need for research to measure PF within multiple situational contexts (Kashdan & Rottenberg, 2010). Phase Two was explored qualitatively using semi-structured interviews with a small sample of women who took part in Phase One. Phase Two explored whether aspects of PF were reported as playing a role in helping to make sense of their childbirth.

7.2. Extended Epistemological Position

This research adopted an epistemological position of Descriptive Contextualism. Descriptive Contextualism seeks to understand a whole experience through examining the particulars of the whole (Hayes, 1993). As such, Descriptive Contextualism has a personal appreciation for the components of an event and its participants (Morris, 1993).

Descriptive Contextualism lends itself to understanding sense-making in birth experience because birth is a rich and complex event that is personal to an individual and their context. Taking a Descriptive Contextualist stance is well suited to the mixed methods, sequential explanatory design. Phase One's data of the event's particulars could be further understood and analysed through examining participants descriptions of the features as well as providing narratives of their personal context.

Taking a Descriptive Contextualist stance influenced my approach to analysis, in particular the Thematic Analysis. Throughout the analysis I held in mind the idea that I was examining particular features of a person's individual experience and that this would lead to me understanding the whole. I could understand participant's accounts of their sense-making of birth as an event that could have occurred or be occurring at a time and place. For instance, I was aware that participants may be continuing to make sense of their birth at the time of the qualitative interviews. During the analysis I could examine the particular sense-making processes whilst holding in mind that these were dependent on the person's context, whether that be the context of a previous time they engaged in sense-making, or the context they were in at the time of the qualitative interview.

7.3. Researcher Reflexivity

I understand my own views and opinions will influence the data I gather and analyse. My position as a woman who has not experienced childbirth meant that my views were open to being shaped by hearing the experiences of other women. It was important for me to consider my own perspective throughout. To facilitate reflexivity I

engaged in regular supervision and kept a reflective research diary, in which I tried to recognise interpretation biases and be open about these (Finlay, 2006). It is also worth noting that my both of my supervisors were women who have experienced childbirth and therefore it is possible that their experiences influence the interpretations they brought to supervision.

I was aware of the possibility of bias from knowing the Phase One results before analysing Phase Two. The decision was made to interview my participants before analysing the Phase One data to reduce bias during the interviews. However, it was decided that I would analyse Phase One before analysing Phase Two because the sequential explanatory design of the study meant that Phase Two was intended to provide more detail and nuance to Phase One. To reduce bias in the Phase Two analysis I did not look at participant's scores before analysis. I was aware that Phase Two's purposive sampling strategy meant that I was unblinded to participant's scores, however, there was a large period of time between completing the interview and analysis (between 2-5 months). This meant that I could not remember participant's scores. Further, I invited participants in batches of mixed scores and therefore if a participant agreed to interview, I did not know which category (i.e., high or low PF, high or low birth satisfaction) they belonged to.

7.4. Extended Sampling Strategy

Phase One adopted self-selection and snowball sampling. The research was advertised on social media platforms including Facebook, Instagram, Twitter and Netmums.com. Individuals identified themselves as participants by choosing to follow the link to complete an online questionnaire. The questionnaire asked initial screening questions to ensure they met eligibility criteria (Appendix K). At the end of the questionnaire participants were asked to let others they think may be interested in taking part know about the study and direct them to the online questionnaire to facilitate recruitment.

The use of social media was made because internet sampling is a free method of accessing large numbers of pregnant women. Internet sampling is also arguably much easier and more time efficient than sampling via NHS services, which requires completing lengthy and time-consuming NHS ethics applications. However, there are limitations to internet sampling including the possibility of self-selection bias, which may limit the present study's ability to generalise the findings (Wright, 2017).

7.5. Extended Sample

7.5.1. Time Point One

Inclusion criteria: Participants were first-time parents because research shows that these individuals are less likely to have their expectations of childbirth met resulting in more un-affirming births (Hauck et al., 2007). Individuals who have experienced childbirth a second time are less likely to report a negative birth (Henriksen et al., 2017). The 28-week cut off was used because at this point a pregnant person moves into the third trimester and are advised to begin thinking about preparing themselves for birth (*28 Weeks Pregnant | Pregnancy | Start4Life, n.d.*). Participants were residents of the UK to allow study results to be considered within the context of the NHS. They were 18 years or older and able to read and speak English to allow full participation in the questionnaires and potentially the Phase Two interview. This ensured interviews could be transcribed and analysed.

Exclusion criteria: Individuals whom the researcher had a personal relationship with were excluded.

7.5.2. Time Point Two

Inclusion criteria: Participants who took part in Time Point One and who had since given birth.

Exclusion criteria: Women who experienced infant death or an unexpected serious health complication. These women were excluded due to the sensitive nature of the study and provided with appropriate signposting as stated under the ethical considerations section.

7.5.3. Extended Sample Size

An a priori power analysis was conducted to find how many participants are needed to ensure sufficient power (.80) in order to detect any differences. G*Power 3.1 software (Faul et al., 2009) was used to calculate the power analysis based on the following:

- Effect size = 0.15. Based on reported effect sizes in similar previous research where psychological flexibility was used as a moderator (Hulbert-Williams & Storey, 2016; Waldeck et al., 2017).
 - alpha = .05
 - Number of tested predictors = 3 (Birth Satisfaction, PF, and Birth Expectations)
- G*Power calculated that a sample size of 77 would be sufficient to ensure power >.80 (.802).

It was realistic to recruit a sample size of 77 considering there were over 670,000 live births in England and Wales in 2017 (Haines, 2018). Previous research reported a 10% drop-out rate in longitudinal studies involving pre- and post-birth (Alcorn et al., 2010; Dikmen-Yildiz et al., 2018). Therefore, the current study aimed to recruit a sample of 90 participants to allow for 10% attrition from pre- to post-birth data collection. A total of 91 participants were recruited into Phase One and a total of 68 participants completed the post-birth measures.

7.6. Extended Data Collection

Phase One data collection took place between December 2019 and September 2020. The research was advertised on social media platforms Twitter, Instagram,

Facebook and Mumsnet. Accounts using their platform to share about motherhood and childbirth were asked to advertise the research. Snowball sampling meant that anyone else could also share the research on their profile. A link to the online survey was shared, which participants could follow to complete the T1 measures.

The post-birth questionnaires were sent to the participant six weeks after their due date. The rationale for this is that evidence suggests a person's rating of satisfaction changes over time. More specifically, ratings of satisfaction are more positive soon after discharge from a hospital or soon after the delivery for post-birth women compared to a few weeks, or months later (Stevens et al., 2006; Waldenstrom, 2004). It is advised an appropriate time lag is used, allowing time for a mother to reflect on birth (Sawyer et al., 2013). Evidence also suggests that once women have had the opportunity to reflect, negative birth perceptions stay relatively consistent (Sigurdardottir et al., 2017). Further, we needed to conduct the post-birth measures as close to childbirth as reasonable, allowing more reliable correlations made between the measures and childbirth. The six week timescale accounts for births that are overdue as the NHS recommends and offers artificial induction if the pregnant person has not gone into labour naturally by 42 weeks (*Your pregnancy and baby guide: Inducing labour*, 2017).

The email asked participants to complete the post-birth questionnaires by following a link and a subsequent reminder email was sent two weeks later (eight weeks after the due date) to those participants who had not yet completed the questionnaires. The decision to send a reminder email was made because having a baby for the first time can be a busy, hectic time for some. The reminder email provided another chance to those participants who wanted to complete the post-birth measures but had forgotten or not yet had opportunity to complete them. We decided to only send one reminder email to respects participants right to withdraw by not responding.

7.7. Extended Measures

Measures collected in Phase One included quantitative measures and descriptive self-report measures. The T1 questionnaire set included demographics, a measure of PF and a narrative or series of bullet-points written by the participant about their expectations of birth. The T2 questionnaire set included a measure of PF, birth satisfaction and expectations of childbirth as well as a question about type of birth and a narrative written by the participant about how their expectations of birth were met or unmet. Figure 2 illustrates which outcome measures will be collected at which time point.

Figure 2

Collection of Outcome Measures by Time Point

<p><u>Time Point One</u> 28 weeks pregnant to birth</p> <p>Demographics CompACT Narrative of Expectations</p>	<p><u>Time Point Two</u> 6 weeks after due date or later</p> <p>CompACT Birth Satisfaction Scale- Revised Measure of Expectations Narrative of Expectations Type of birth</p>	<p>?</p>
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7.7.1. Demographics

Demographic information was obtained to describe the sample. Demographic information enabled us to describe the present sample and compare the sample with samples from previous research involving birth. Demographic information obtained was age, marital status, ethnicity, and occupation.

7.7.2. Psychological Flexibility - Comprehensive Assessment of ACT Processes (CompACT) (Appendix D)

The CompACT was used to measure PF (Francis et al., 2016). The CompACT is a 23-item questionnaire whereby participants are asked to rate how much they agree with a statement on a 7-point Likert-type scale (0 = strongly disagree, 6 = strongly agree). A higher score indicates higher levels of PF. Total score represents a person's overall PF, and the CompACT can also be scored according to its three subscales (openness to experience; OE, behavioural awareness; BA, and valued action; VA). We decided to use the total score on the CompACT in the analyses of the main study due to the small sample size, although subscales have been considered in the extended results section of this paper.

Other measures of PF, such as the Acceptance and Action Questionnaire (AAQ; Bond et al., 2011) are criticised for their discriminant and content validity (Francis et al., 2016; Waldeck et al., 2017; Wolgast, 2014). The CompACT was developed in line with how PF is conceptualised within the Acceptance and Commitment Therapy (ACT) Model (Francis et al., 2016; Hayes et al., 2011). The ACT model could be useful to use therapeutically in developing treatment protocols for individuals who experience distress following childbirth. For these reasons it was decided to use the CompACT in the present study.

7.7.3. Birth Satisfaction - The Birth Satisfaction Scale-Revised (BSS-R) (Appendix F)

The BSS-R (Hollins-Martin & Martin, 2014) was used to measure satisfaction with childbirth. The BSS-R is a 10-item questionnaire whereby participants are asked to rate how much they agree with a statement on a 5-point Likert-type scale (0 = strongly disagree, 4 = strongly agree). A higher score indicates higher levels of satisfaction with birth. A total score indicates overall birth satisfaction, and the BSS-R

can also be scored by its three subscales (care provision, personal attributes, and stress during labour). We decided to participants' total scores on the BSS-R in the analyses due to the small sample size, although subscales have been considered in the extended results section of this paper. It has been suggested that the total score on the BSS-R can be used with confidence (Martin et al., 2018).

The BSS-R was validated using a sample of women who were < 10 days postpartum. This study asked women to complete the questionnaire at roughly six weeks postpartum. The rationale for using the BSS-R despite this is that the original Birth Satisfaction Scale (Martin & Fleming, 2011) recommended completion of the questionnaire at six to eight weeks postpartum. This is to allow women time to overcome immediate reactions to birth such as overwhelming feelings of survival or grief after a difficult birth and allow opportunity to reflect on the birth. The original BSS is not validated therefore we decided to use the BSS-R.

Other measures of birth experiences were considered. A systematic review was conducted that evaluated 36 instruments measuring childbirth experiences (Nilver et al., 2017). The results of this systematic review indicated several measures that are preferable over the BSS-R including The Childbirth Experience Questionnaire (Dencker et al., 2010), The maternal satisfaction scale for caesarean section (Morgan et al., 1999) and the Childbirth Perception Scale (Truijens et al., 2014). However, none of the preferred measures were suitable for the present study for various reasons including because they were not inclusive of caesarean-section births (Dencker et al., 2010), only related to caesarean-sections (Morgan et al., 1999), and only measured satisfaction with home births (Truijens et al., 2014). Despite the limitations to the BSS-R (Nilver et al., 2017), we decided to use this measure as it was the most suitable standardised measure for the present study. Furthermore, the BSS-R has been considered the most appropriate measure of birth satisfaction in other studies examining standardised measures in childbirth (Nijagal et al., 2018).

A couple of months into data collection of Phase One a participant got in contact asking if her results would fit within our study because she had a planned caesarean-

section. She explained that some of the questions on the BSS-R are phrased to assume the experience of labour. I discussed the feedback with my supervisors and got in contact with the authors of the BSS-R to ask if they had ever come across this problem before. The authors advised us to include a sentence stating, 'We understand that you may not have been in labour and if this is the case please focus on the rest of the birth experience.' They also advised that we ask participants what type of birth they had to allow us to put their answers on the questionnaire into context. An ethics amendment (Appendix L) was submitted and approved in February 2020 to incorporate this change.

7.7.4. Expectations of Childbirth

Pre-birth Narrative of Expectations of Childbirth. Expectations of childbirth are complex and often individuals have a number of expectations they hope will be met during childbirth (Borrelli et al., 2018). Birth expectations are unique to the individual meaning that what one person expects from childbirth can vary greatly to what another expects from childbirth (Howell-White, 1999). To measure expectations of childbirth pre-birth participants were asked to provide a short narrative or bullet-pointed list of what they expect childbirth to be like. To facilitate this an open-ended question was used: 'Please provide a few sentences or bullet points about what you expect from your childbirth. This can include details from your birth plan (if you have written one)'.

Post-birth Measure of Expectations of Childbirth (Appendix G). The study used a 7-point Likert-type scale to determine whether women's expectations of childbirth were met or unmet. This allowed collection of quantitative data on expectations whilst allowing women to select from a range of options, rather than answering a yes or no question. We used this global score because we were not looking at details of which specific expectations are met or unmet. Instead, we were interested in whether they felt they had been met globally and how this relates to satisfaction of birth.

Post-birth Narrative of Expectations of Childbirth (Appendix H). In line with the above rationale for collecting narrative data on expectations pre-birth, we also collected narrative data post-birth. Participants were asked to provide a few sentences or bullet-points describing why they felt their birth had or had not gone as expected. The Post-birth Narrative of Expectations of Childbirth enabled us to examine differences between expectations pre-birth and what participants described as reasons why their birth had or had not gone as expected post-birth. As such, we could capture some of the complexity of expectations that the Post-birth Measure of Expectations of Childbirth did not capture.

7.7.5. Type of Birth (Appendix I)

Participants were asked to indicate what type of birth they had from provided options. This information was collected to enable us to provide context to participant's responses to the birth expectations measures.

7.8. Data Collection

The researcher uploaded the questionnaire set onto Online Survey (previously known as Bristol Online Survey). This created a link that participants followed to access and complete the questionnaires. The survey tool prompted the participant to provide their email address and due date for purposes of emailing the post-partum questionnaire link and for the researcher to contact them to take part in Phase Two. The researchers email address was provided to provide opportunity for participants to ask questions.

7.9. Analysis

Data from the online survey tool was exported and uploaded onto a Statistical Package for the Social Sciences (SPSS) database (IBM Corp, 2019). The researcher analysed the data to answer the first research question. To describe the sample the researcher used descriptive statistics to show means and standard deviations, or frequencies. This identified key factors including age, marital status, occupation, and ethnicity.

To test the first research nonparametric correlations were conducted for birth satisfaction, PF, and expectations. Nonparametric correlations were used as the sample was not normally distributed and therefore did not meet the assumption of normality. An Independent samples t-test was carried out to explore the significant relationship between birth satisfaction and expectations and birth satisfaction and type of birth.

A Content Analysis was conducted to analyse Pre-birth Narrative of Expectations of Childbirth and the Post-birth Narrative of Expectations of Childbirth. The decision to analyse using Content Analysis was based on it fitting better with the quantitative focus of the Phase One results. Furthermore, Content Analysis fits within the Descriptive Contextualist epistemological position, whereby I am seeking to understand the whole (birth expectations) through examining its particular features (specific aspects of expectations). We did consider using a Thematic Analysis, in line with the Phase Two analysis. However, it was decided that Thematic Analysis was not appropriate as it would involve using direct quotes from participants (which would not meet the agreed ethical approval of the study), and it would not fit with the study's research questions. The study's research question that asks about birth expectations is a dichotomous question of whether they are met or unmet. As such, this question lends itself better to an analysis that enables quantitative categorisation of qualitative data.

The type of Content Analysis used was Conventional Content Analysis. A Conventional Content Analysis derives categories from the data, as opposed to deriving them from a theory or previous research (as in Directed Content Analysis) or

searching for key words universal to that topic (as in Summative Content Analysis) (Hsieh & Shannon, 2005). Deriving the categories from a theory or previous research and searching for key words would not fit with the epistemological position of Descriptive Contextualism. Descriptive Contextualism has an appreciation of personal meaning within context (Hayes, 1993) and both Directed and Summative Content Analysis move away from individual context and meaning.

7.10. Phase Two: Qualitative Data Collection and Analysis

7.10.1. Sampling Strategy

Phase Two adopted a purposive sampling strategy. This strategy enabled generalisations to be made based on the intentions of selecting participants who represent of a range of experiences to provide cross-contextual variability. Participants were selected to represent higher levels of PF and lower levels of PF, high and lower scores of birth satisfaction and where possible a range of demographics e.g., age, occupation.

7.10.2. Sample

Inclusion criteria: Participants were those who took part in Phase One and who had recently given birth. They had to be over 18 years old and able to speak and understand English.

Exclusion criteria: Individuals who experienced infant death or an unexpected serious health complication.

7.10.3. Sample Size

A total of 11 participants were interviewed. We aimed to interview between 10 and 12 as this is in line with recommendations for reaching sufficiency in Thematic

Analysis (Ando et al., 2014; Gibbins & Thomson, 2001; Martin et al., 2013; Nicholls & Ayers, 2007). We stopped recruiting after 11 participants were interviewed as there were no more participants who had been invited that agreed to take part and time constraints meant that we were unable to send out further invites. This sample size was aimed to enable in-depth analysis of individual's experiences and the phenomena being investigated, whilst considering the practical aspects of time constraints posed by the nature of completing a DClinPsy thesis.

7.10.4. Recruitment

In Phase One participants were asked if they would be willing to opt-in to potentially be contacted and asked to take part in Phase Two. Participants were selected using the purposive sampling strategy. Participants were invited in batches (around 4 participants) to minimise bias (as previously explained) and to minimise chances of lots of participants coming forward in one go. They were invited via email and asked to respond to that email if they wanted to take part, and/or to ask any questions. Once a participant agreed to take part, we arranged a time convenient for them to conduct the interview over the telephone.

7.10.5. Data Collection

Interviews took place over the telephone and were audio-recorded. Interviews followed a semi-structured interview schedule (Appendix J). The interview began by asking the participant whether their expectations of childbirth were met or not. Prompts and probes were used to elicit detail about specific areas. The semi-structured nature of the interview allowed participants to share experiences of childbirth whilst helping the interviewer remain focused on the research questions. The interview then asked how the participant feels about their childbirth. Following that they were asked how they made sense of their childbirth and what helped or didn't help to them make sense of it.

7.10.6. Analysis

Interviews were audio recorded and transcribed by a transcription service. Transcription was carried out in line with the university's confidentiality policy and the transcription service agreement form can be found in Appendix M. Data was analysed using Thematic Analysis (TA) and carried out within a Descriptive Contextualist framing. TA is a method that seeks to find and analyse themes within a dataset that describe the data in a rich and meaningful way (Braun & Clarke, 2006). TA fits within the epistemology of this study because Descriptive Contextualism seeks to understand the richness and complexity of events (Morris, 1993).

TA was chosen to analyse Phase Two data for a few reasons. TA is a flexible method of analysis in that it fits within a number of epistemological positions. Furthermore it can take a deductive, inductive or deductive-inductive approach to analysis (Fereday & Muir-Cochrane, 2006). Having the opportunity to apply a deductive-inductive approach to analysis was a strength to this study. The deductive analysis in TA enabled us to explore the processes relating to PF and Psychological Rigidity in more detail and thus discover descriptions of these processes as part of sense-making in birth. The inductive analysis in TA enabled us to explore further sense-making processes, unrelated to PF. As such we were able to elicit and interpret rich data about the role of PF in sense-making of birth as well as other processes, giving space for and reflecting the complexity of birth.

The TA followed the guided six-phase procedure provided by (Braun & Clarke, 2006) (shown in Table 14). This was not followed linearly, instead, the researcher continually moved between phases throughout. This ensured a flexible approach is followed in line with the principles of TA.

Table 14.

Thematic Analysis Procedure

Phase	Description of procedure
1. Familiarising yourself with the data	Transcription and reading the data several times
2. Generating initial codes	Noting initial ideas on the data and organizing these into amendable segments
3. Searching for themes	Looking for patterns within the data and coding them into themes
4. Reviewing themes	Going over each theme to check they fit with initial codes
5. Defining and naming themes	Deciding on names that describe each theme
6. Producing the report	Writing up the analysis illustrated by extracts from the data

To ensure validity the researcher's tutors checked themes generated to ensure data is represented fairly without overrepresentation of any aspect. A reflective research diary was kept throughout, as recommended by Braun and Clarke (2019). Keeping a reflective diary enables transparency about a researcher's philosophical

and theoretical position, in turn this enables consistency throughout the analysis (Braun & Clarke, 2019). Examples of my reflective diary can be seen in the reflective section of this paper.

Following the initial 'familiarising yourself with the data' phase, the researcher began the deductive analysis and followed phases two to five (see Table 14). The deductive analysis used the ACT HexaFlex as a framework for generating themes relating to the processes of PF (Hayes et al., 2006). The HexaFlex was used as it provides a good overview of each core process of PF and this enabled us to search for these processes within the participant's descriptions of sense-making in birth. Another rationale for using the HexaFlex is that it is known for being a unique signifier that helps to differentiate ACT from other therapy models or theories that use similar concepts such as mindfulness and acceptance (Martinez, n.d.).

We did consider using the ACT 'Triflex', however, the Triflex couples together the core processes and therefore would have meant searching for two processes at one time (Harris, 2019). For example, 'Be Present' incorporates both 'self-as-context' and 'contact with the present moment' (Harris, 2019). As such, it was decided that the HexaFlex was easier to follow when conducting the analysis as the researcher could work through the six core processes systematically.

Once the deductive analysis was completed up to phase five, the researcher went back and began the process again following an inductive analysis. Appendix N provides a worked transcript including both the deductive and inductive coding. The inductive analysis involved generating codes from the data on a semantic level. Thematic Analysis involves analysing the data by applying meaning to it and this meaning can be derived from implicit (latent i.e. finding meaning underlying a person's words) information or explicit (semantic i.e. taking a person's words literally) information (Braun & Clarke, 2006). The present study aimed to find out what aspects women report as helping and/or hindering their sense-making in birth and as such, we were not interested in underlying meanings to what they described. For these reasons

it was decided that an inductive analysis from a semantic level met the aims of the research study questions best.

Alternative approaches to Phase Two data analysis were considered, however it was decided that TA was the most suitable method for answering the research questions. Grounded Theory is a method of qualitative data analysis that seeks to develop a theory through data saturation (Glaser & Strauss, 1967). Grounded Theory would not have been appropriate for this study's as the research questions focused on a pre-existing theory of PF. The aim of the analysis for this study was to search for evidence of ACT's theory of PF as opposed to developing a new theory from the data.

Interpretative Phenomenological Analysis (IPA) was also considered. IPA seeks to understand the meaning behind individual's unique experiences (Smith et al., 2009). Initially, it was thought that IPA would fit with the sense-making aspect of this study's research questions as IPA aims to make sense of a person's sense-making (Howitt, 2010). However, IPA is bound to the epistemological position of interpretive phenomenology and therefore would not fit within this study's epistemology of Descriptive Contextualism (Braun & Clarke, 2006). Furthermore, the current study required flexibility in its method of qualitative analysis due to the various components of its research questions i.e., searching for PF-related aspects (theory-driven) as well as searching for other aspects (data-driven). The current study sought to examine the particular aspects of sense-making that participants described, rather than understand the meaning that individuals prescribe to their sense-making, as is the aim of IPA.

7.11. Interpretation and Validity

A previously mentioned, the data analysis was completed in stages with Phase One analysis involving analysis of quantitative measures followed by the Content Analysis of the narrative measures. Phase Two involved Thematic Analysis of deductive followed by inductive approaches.

Analysis and write up of the multiple stages/components to the study's data was completed separately, however, the results were considered together in the discussion section of the paper. The decision to analyse and write up each component separately was made because this fit with the study's design being sequential-explanatory; Phase Two results were intended to further explain and expand upon Phase One results. Furthermore, the study's research questions each required a different approach to analysis; Table 15 illustrates each research question and its method of analysis.

Table 15.

Study research questions and method of data analysis

Research Question	Method of Data Analysis
What is the relationship between PR, birth satisfaction and birth expectations?	Quantitative methods i.e., correlations and independent samples t-tests Qualitative method i.e., Content Analysis
Do women report PF-related skills as playing a role in sense-making of birth?	Deductive Thematic Analysis
What aspects do women describe as helping and/or hindering sense-making of birth?	Inductive Thematic Analysis

To ensure validity of the qualitative findings, the researcher continually revisited the research questions throughout the analysis to ensure that they were staying close to the study aims. The research questions were written down and placed on a wall directly above the researcher's computer screen to allow for ease of revisiting the questions. As previously mentioned, a reflective research diary was also kept, in which the researcher reflected upon how their context and biases may influence the interpretation of the data. Moreover, the researcher engaged in regular supervision whereby they discussed the reflective diary and were encouraged by supervisors to consider where their interpretation of certain data has come from.

The epistemological position posits that the context in which behaviour occurs is central to the interpretation and understanding of the event. It was important that the researcher's context and any decisions made throughout were considered throughout and the reflective research diary enabled this. Reflexivity enables a reader to consider the validity of the study's methods and findings and provides opportunity to replicate the study to test this. Therefore keeping a reflective research diary was vital to ensuring validity of the study (Carcary, 2009).

7.12. Ethical considerations

7.12.1. *Ethical approval*

This research study received ethical approval from the Research Ethics Committee (REC) at The University of Nottingham. Ethical approval letters, including those for amendments, can be seen in Appendix O.

7.12.1. *Confidentiality and Privacy*

The researcher kept all data securely and safely in a password-protected file on the University of Nottingham's OneDrive. Access to the information was limited to the researcher, research tutors and administration team for the Trent DClinPsy programme at the University of Nottingham. All staff and the researchers aimed to protect the rights of the participants to privacy and informed consent and adhere to the Data Protection Act (2018). Data collected throughout the study, including names, email addresses and audio recordings were kept in accordance with the Data Protection Act (2018) and The General Data Protection Regulation (2016/679). Interviews from Phase Two were audio recorded using an encrypted Dictaphone approved and provided by the University of Nottingham.

7.12.2. *Informed Consent*

The process for obtaining participant informed consent was in accordance with the REC guidance. For Phase One the first page of the online survey included the information sheet (Appendix P) and a statement that explained submission of the questionnaires would be taken as informed consent. For Phase Two the researcher emailed the participant information sheet (Appendix P) and consent form (Appendix Q) and asked the participant to sign and email it back to them before the interview if they wished to take part. The participant was provided with a copy of the forms from the email trail and the researcher retained a copy in the study records.

7.12.3. *Participant withdrawal*

Participants were made aware that their decision to participate in the study was entirely voluntary. For Phase One the Information Sheet presented on the online survey emphasised that consent was voluntary, and they may withdraw at any time. For Phase Two participants were informed that after the interview had taken place, they may only withdraw within two weeks, after which it would not be possible to exclude their data from the analyses.

7.12.4. *Protection of research participants*

As the participants were asked to think about a time that was potentially distressing there is a possibility that the questions in both phases could have caused them to feel distressed. Participants taking part in Phase One were presented with options of support services in their debrief and the researchers' contact details if they have questions relating to the study. Participants taking part in Phase Two were given the same options of support services in their debrief. Participants were interviewed by the main researcher who is a Trainee Clinical Psychologist so can provide support and manage distress during the interviews. The main researcher was prepared to advise the participant to contact their GP or Health Visitor if they felt they did not have the appropriate support in place, although this was not required. Further to this, the main

researcher was supported by research supervisors who are qualified Clinical Psychologists and offered support and advice where appropriate through supervision.

There is a chance some of the participant's pregnancies and births may have resulted in infant death or a serious health complication. For these women it could have been extremely distressing to receive a reminder email about the study. Therefore, the email participants received asking them to complete the second questionnaire set included a sentence stating:

“We know that some pregnancies and births can sometimes end in tragic circumstances. If this applies to you then we are deeply sorry that this happened to you and we would not expect you to complete the second stage of the study. We understand that people are often offered different types of support depending on their circumstances and what their local hospital and services can provide. We have included some national services and resources attached to this email that we know provide support to parents (who have for example lost a child, have had a pre-term birth, a child with serious health condition and other tragic circumstances) which we hope may be helpful. However, we do also suggest speaking with your GP or a specialist bereavement midwife if you are struggling to find the right support for you.”

This statement was developed in collaboration with and guidance from Dr Michelle Tolfrey who is a HCPC registered Clinical Psychologist who has experienced baby loss herself. She advised on the above statement and the organisations to include in the National Services and Organisations leaflet sent out in the reminder email (Appendix R).

7.12.5. Participant debriefing

All participants were debriefed after taking part in the study. A debriefing page was presented on completion of Phase One (Appendix S) along with a link to download this form. A debriefing sheet was also emailed to participants on

completion of Phase Two (Appendix T). Participants were provided with the researcher's contact details so they could contact them to ask any questions. Participants were asked if they would like to receive a summary of the study's results upon completion in the online survey.

7.12.6. Incentives

Participants who took part in Phase One of the study were entered into a prize draw to win a £10 Amazon voucher. Those participants who also took part in Phase Two were entered into a second prize draw to win a £10 Amazon voucher.

8. Extended Results

8.1. Extended Sample Data

Table 16 presents the descriptive statistics for participant demographic information. The majority of participants were either married (71%) or cohabiting (22%). Four participants did not provide information about their ethnicity. All of the participants who did provide a response identified as White. The majority (82%) identified as White British.

Table 16.*Demographic information.*

Demographic	N = 68 (%)
Age	
	Mean = 31.97
	S.D. = 4.29
	Range = 23 - 42
Missing	2 (2.9%)
Marital status	
Single	1 (1.5%)
Married	48 (70.6%)
Cohabiting	15 (22.1%)
Ethnicity	
White British	56 (82.4%)
White Irish	1 (1.5%)
White – any other	7 (10.3%)
Missing	4 (5.9%)
Occupational Group	
1	6 (8.8%)
2	43 (63.2%)
3	4 (5.9%)
4	4 (5.9%)

5	0
6	2 (2.9%)
7	0
8	1 (1.5%)
9	1 (1.5%)
Missing	7 (10.3%)

Note. See Table 17 for descriptions of occupational group

The UK government's Standard Occupational Classification (SOC) structure was used to describe participants' occupations (Office for National Statistics, 2020). In the SOC, occupations are classified into nine groups (see Table 17) based upon level of knowledge, education and experience required to undertake the job.

Table 17.

Description of occupations by classification

Occupational Group	Description of Occupational group
1	Managers, Directors, and Senior Officials e.g. Chief Executive, Human Resource Manager
2	Professional Occupations e.g. Doctor, Nurse, Teacher, Solicitor
3	Associate Professional Occupations e.g. Paramedic, Housing Officer, Laboratory Technician
4	Administrative and Secretarial Occupations e.g. Records Clerk, Office Manager
5	Skilled Trades Occupations e.g. Farmer, IT Engineer
6	Caring, Leisure and Other Service Occupations e.g. Care Worker, Teaching Assistant
7	Sales and Customer Service Occupations e.g. Sales Assistant, Customer Service Supervisor
8	Process, Plant and Machine Operatives e.g. Bus Driver, Food Operative

9	Elementary Occupations e.g. Cleaner, Bar Staff, Hospital Porter
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Table 18 presents the frequencies and percentages of participants occupations as classified by the SOC. Seven participants did not provide information about their occupation. Participants were most frequently in jobs classified as group two, with 43 participants in jobs that fall into this group. The second most frequent occupational group was group one. However, group one jobs were much less frequently reported with only six participants in jobs that fall into this group.

Table 18.

Frequencies and percentages of participant's occupations

Occupational Group	Frequency	Percent
1	6	8.8
2	43	63.2
3	4	5.9
4	4	5.9
6	2	2.9
8	1	1.5
9	1	1.5
Missing	7	10.3
Total	68	100

8.2. Extended Phase One Results

8.2.1. Assumption Testing

Table 19 shows the descriptive statistics for Birth Satisfaction, pre-birth PF and post-birth PF. Skewness and kurtosis values should be zero in a normally distributed sample (Field, 2009). In the present sample, skewness for all three variables are below

zero, indicating that the variables are skewed to the right. The values of kurtosis for all three variables are below zero, which means they are more likely to have a flat and light tailed distribution. Therefore, the data is not normally distributed and as such, the assumption of normality for a parametric test was violated. Consequently, nonparametric correlations were conducted.

Table 19.

Descriptive statistics for Birth Satisfaction, pre-birth PF and post-birth PF (N = 68)

		Birth Satisfaction	Pre-birth PF	Post-birth PF
N	Valid	68	68	68
	Missing	0	0	0
Mean		27.46	94.47	90.59
Std. Error of Mean		.859	2.041	2.304
Median		28.5	95	91.5
Mode		32	95	91
Std. Deviation		7.08	16.83	19
Variance		50.19	283.24	361.05
Skewness		-.255	-.384	-.524
Std. Error of Skewness		.291	.291	.291
Kurtosis		-.860	-.418	.262
Std. Error of Kurtosis		.574	.574	.574
Range		29	70	92
Minimum		10	54	38
Maximum		39	124	130
Percentiles	25	22	84.25	80.25
	50	28.5	95	91.5
	75	32	107.75	103.75

8.2.2. Nonparametric correlations for PF (CompACT) subscales

Table 20 presents the results from nonparametric correlations for PF subscales. Kendall's Tau correlations indicated no significant relationship was found between the post-birth PF Openness to Experience (OE) subscale and Birth Satisfaction ($p = .419$). No significant relationship was found between post-birth PF Behavioural Awareness (BA) subscale and Birth Satisfaction ($p = .313$). No significant relationship was found between PF Valued Action (VA) subscale and Birth Satisfaction ($p = .782$).

Table 20.

Nonparametric correlations for CompACT subscales and Birth Satisfaction

		Birth Satisfaction	
Kendall's tau	PF OE	Correlation Coefficient	.069
		Sig. (2-tailed)	.419
	PF BA	Correlation Coefficient	.087
		Sig. (2-tailed)	.313
	PF VA	Correlation Coefficient	.024
		Sig. (2-tailed)	.782

Note. OE = Openness to experience; BA = behavioural awareness; VA = valued action

8.2.3. Nonparametric correlations for Birth Satisfaction (BSS-R) subscales

Note. SL = stress experienced during labour; WA = women's personal attributes; QC = quality of care provision

Table 21 presents the results from nonparametric correlations for Birth Satisfaction subscale. Kendall's Tau correlations indicated no significant relationship was found between the 'Stress experienced during labour' (Stress) subscale and post-birth PF ($p = .463$). No significant relationship was found between 'Women's personal attributes' (PA) subscale and post-birth PF ($p = .313$). No significant relationship was found between 'Quality of care provision' (Care) subscale and post-birth PF ($p = .624$).

8.2.4. Extended Content Analysis

Table 21.

Nonparametric correlations for BSS-R subscales and PF

			Post-birth PF
Kendall's tau	BSS-R SL	Correlation Coefficient	.063
		Sig. (2-tailed)	.463
	BSS-R WA	Correlation Coefficient	.089
		Sig. (2-tailed)	.313
	BSS-R QC	Correlation Coefficient	-.044
		Sig. (2-tailed)	.624

Participants did not report details about met expectations, with many responding with broad answers: "... exactly as I had visualised." There were many more specific details reported about unmet expectations, with the most commonly reported reasons relating to intervention received, length of labour and medical complications: "...had to try forceps." "I was in labour for over 3 days." "I suffered a postpartum haemorrhage."

8.3. Extended Phase Two Results

8.3.1. *Extended Deductive Thematic Analysis (TA)*

Table 22 presents themes and sub-themes constructed of the deductive TA, with additional illustrative quotes.

Table 22.

Illustrative quotes for themes and sub-themes related to the Deductive analysis

Theme	Sub-themes	Illustrative quote
Psychological Flexibility	Committed Action	“I didn’t want to take any pain relief unless I absolutely had to, because the pain relief that was offered would have sent me a bit woozy and I wouldn’t have quite have been in the moment if you like.” (Sophia – unassisted vaginal birth)
	Values	“So, I would say that it was definitely an experience. I don’t know whether it’s one that I would necessarily want to go through again but at the same time I managed to give birth to a healthy girl and so it was worth it.” (Scarlett – emergency caesarean-section)
	Contact with the Present Moment	“I just wanted to experience it to the full and I managed that and that for me is the best thing about my birth.” (Sophia – unassisted vaginal birth)
	Acceptance	“I suppose when I initially decided on an elective section maybe I was a little bit like, oh right OK, it’s not what I had initially thought. But I came to terms with it quite quickly and I was like, it’s fine.” (Chloe – planned caesarean-section)
	Self-as-Context	“...knowing that your thoughts and memories and experiences aren’t [everything] - there are different ways of viewing different things, so getting a bit of distance from your own thoughts is important.” (Vicky – assisted vaginal birth)
	Defusion	“I mean I didn’t think too much about it I have to be honest. I think one of my main sort of approaches to things was, once something’s done, if you can’t influence it at

		that stage, there's not much point rehashing it and going over it and everything." (Evelyn – assisted vaginal birth)
Psychological Rigidity	Inflexible Attention	"And there was other women on the ward with me who were kind of - I could hear one woman next to me vomiting, she wasn't coping very well with her contractions." (Vicky – assisted vaginal birth)
	Fusion	"All I thought was, oh my god I'm in a hospital and my life is in somebody else's hands. I didn't even give it a second thought to think, oh wow I've just had a baby." (Isabella – emergency caesarean-section)
	Fusion with Self- Concept	"I guess that's it really, that I thought I was... mentally quite a sort of open-minded, flexible person and could deal with most things that got thrown up, by going according to plan. But yeah, this has just been very, very different I think." (Abigail – planned caesarean-section)
	Unworkable Action	"I wish I'd stuck up to them and said, can we please just give me a week, or five days, a couple of days just to see if my body would do it on its own. But I didn't. And I now know that actually I would have had every right to do that, because it's my body and my baby." (Isabella – emergency caesarean-section)
	Remoteness from Values	n/a
	Experiential Avoidance	"At the beginning I was - I didn't really want to think about it, about the whole experience" (Zoe – assisted vaginal birth)

The deductive TA identified discrepancies between the participants reports of their sense-making processes being in line with processes of PF and PR and their quantitative scores on the CompACT. For comparison, the mean scores are presented in Table 23. For instance, Zoe’s descriptions of her sense-making processes involved all six processes analogous to PR, yet she scored highly on the CompACT (Post-birth PF score = 130). Sophia’s descriptions involved all six processes analogous to PF, yet she scored low on the CompACT (Post-birth PF score = 43). Furthermore, Chloe scored low of PF (Post-birth PF score = 38), yet her descriptions involved all six processes of PF and only one process of PR.

On further inspection of the PF (CompACT) subscales, Sophia scored very low on Openness to Experience (PF OE = 9) and Behavioural Awareness (PF BA = 4) but scored high on Valued Action (PF VA = 40). There were no other notable extremes in subscale scores amongst the other Phase Two participants.

Table 23.

Means and standard deviations of Post-birth PF total score and subscale scores

	Post-birth PF Total	Post-birth PF OE	Post-birth PF BA	Post-birth PF VA
Mean	90.59	34	17	39
S.D.	19	11	6	6

8.3.2. Extended Inductive Thematic Analysis

Table 24 presents themes and sub-themes constructed in the inductive TA with additional examples of illustrative quotes.

Table 24.

Inductive TA themes and sub-themes with illustrative quotes

Theme	Sub-theme	Illustrative Quote
Support & Care	Communication	<p>“So, I guess my understanding came from having it explained to me by staff members who were attending to my birth at the time, yeah. So, I think that was mostly from them.” (Vicky – assisted vaginal birth)</p> <p>“I felt like every decision along the way, they would come to me and say this is what we’re thinking and they kept saying, it’s your birth, it’s your birth, you can decide but this is what our medical recommendation is.” (Scarlett – emergency caesarean-section)</p>
	Influence of others	<p>“Perhaps afterwards, the more that I read on the media is probably the only thing that’s given me doubts about it as I look back, is everyone talks about a natural birth and how wonderful it is and how that’s the best.” (Ava – emergency caesarean-section)</p> <p>“...everyone was sort of saying, oh they’ll come early, because twins tend to come early and all this. And of course, they were quite big for twins. So, there was sort of this expectation that they were actually going to come early.” (Chloe – planned caesarean-section)</p>

Healthcare	<p>“...but actually looking back when I think about my birth experience, I do partially blame the healthcare professionals for the way that my experience was.” (Isabella – emergency caesarean-section)</p> <p>“...the lady who delivered my daughter was very, very experienced and very calm and positive about the whole thing, so that helped as well.” (Sophia – unassisted vaginal birth)</p>
Talking	<p>“I’m really disappointed with my childbirth you know this whole experiences and they said obviously there’s someone going to come over and talk to me about this, it never happened.” (Zoe – assisted vaginal birth)</p> <p>“I’ve spoken to people since about it and talked through it, which I think has helped.” (Abigail – planned caesarean-section)</p>
Choice/Control	<p>“I think there was a lot of external factors going on that I didn’t have a huge amount of - well, any control over. Obviously the pandemic and lockdown.” (Abigail – planned caesarean-section)</p> <p>“I’m really - I like to control the controllables and if there are things that aren’t controllable then - and I know why, then I’m happy to accept that. I’m not going to try and control an uncontrollable element. But if I can control something then I will.” (Ava – emergency caesarean-section)</p>

Personal Processes Mindset

“I wasn’t very much - you know, how like some people get very fixated on having this sort of birth, I was still quite open-minded.” (Emma – unassisted vaginal birth)

“You don’t have a classroom of children in reception class - you don’t know which ones were born by caesarean; what ones are born naturally. You don’t know by looking at them, so what does it matter how they got here, because they’re here.” (Isabella – emergency caesarean-section)

Attributes

“The delivery suite was full, so even if I’d gone in and was like fully dilated, I would have had to have delivered on the ward. They couldn’t have got me to the delivery suite. Which, at the end of the day I’ve worked them shifts when it is full and I know there’s nothing you can do about it, it’s just one of them.” (Emma – unassisted vaginal birth)

“I already knew about all of that from my own therapy and grounding breath and things like that and, yeah, and just how to kind of like manage a bit of anxiety and fear so, I think it did, it did definitely help.” (Mia – unassisted vaginal birth)

Internal processes

“I mentally prepared myself for something to go wrong.” (Evelyn – assisted vaginal birth)

		<p>“I was really worried about that, particularly in early pregnancy that I would also have that. But I didn’t. But obviously that caused some stress for me. And even after they said that my cervix was fine, I was still stressing about it, because I didn’t believe them if that makes sense.” (Sophia – unassisted vaginal birth)</p>
Preparedness		<p>“But, as you naturally do, I think I’d been Googling what happens if the baby’s the wrong - if the baby’s in this position as opposed to the optimal one.” (Scarlett – emergency caesarean-section)</p> <p>“...it went the way that it did because it was very planned in terms of being an elective section. So, providing everything went to plan, I knew what day the babies were going to be born. I knew where they were going to be born and all of that.” (Chloe – planned caesarean-section)</p>
Birth Processes	Labour	<p>“So, I spent a lot of my time sitting down. So, I think that probably didn’t help the rate that I was labouring.” (Isabella – emergency caesarean-section)</p> <p>“And we knew that’s why the action went very fast because when I - like I said after 3pm I had almost three four centimeter dilation and I think after 7pm I had 10 so it went quite quickly actually so that’s why I think that’s why I had such a strong sensation. So that’s why the action went so fast and yeah so. Yeah, so</p>

that's why it's very hard to be rational, I knew that things happening around me and I was trying to make sense of this." (Zoe – assisted vaginal birth)

Medical challenges "It turned out that I had a temperature, so they - because I was on their midwife led unit, and I had a temperature, so they took me up to the doctor led unit and it turned out that actually thankfully I did have a temperature, but actually when they monitored XXX's heart rate, it was going down every time I had a contraction. So, it turned out he had the cord wrapped round his head. So, I had to have an emergency caesarean." (Ava – emergency caesarean-section)

"They induced me, they wanted to induce me because I went two weeks over my due date, which I get. I'd done my own research, I understand why they do it." (Isabella – emergency caesarean-section)

9. Extended discussion

9.1. Concept of Birth Satisfaction

The present study's findings suggest that there may be important nuances involved in how we understand birth satisfaction. These nuances are potentially not captured in the BSS-R, which was used to measure birth satisfaction in the present study (Hollins & Martin, 2014). Factors relating to birth satisfaction have been explored and it has been suggested that birth satisfaction is a complex and multifaceted phenomenon (Goodman et al., 2004). The BSS-R's conceptualisation of birth satisfaction focuses on the events of birth or feelings experienced during birth. There does not appear to be any items that encompass the birthing person's feelings at the time of completing the measure. As such, it does not capture the possibility of sense-making processes transforming, or changing, the way a person feels about their birth. For example, it is possible that a person did feel distressed or anxious during birth, but that they have since made sense of those feelings and have come to accept them, which allowed them to feel more satisfied with their birth experience. The possibility that the BSS-R does not capture potential post-birth, and post sense-making, interpretations of birth experience could explain why the present study did not find any significant relationships between PF and birth satisfaction.

Being psychologically flexible would, to some degree, involve becoming accepting of unwanted experiences such as events, feelings, and memories (Hayes et al., 2006). By its very nature, birth involves some level of discomfort, or unwanted experience. Therefore, a person who is psychologically flexible would not aim to reduce, or eliminate, any unwanted experiences, instead they would accept them. This understanding of acceptance may be an important aspect not currently captured in the conceptualisation of birth satisfaction. Perhaps the concept of acceptance could be distinguished from current

conceptualisations of birth satisfaction either by measuring it in its own right or incorporating it as a distinct aspect of birth satisfaction.

9.2. Measuring Psychological Flexibility

There may be difficulties with measuring PF in the context of childbirth using the CompACT (Francis et al., 2016). The CompACT is reliant on a person's ability to reflect on their internal experiences and for these reflections to be reliable. It is well accepted that having a baby is a hugely challenging and stressful major life experience (Johns & Belsky, 2007). Birth itself places huge amounts of stress on the body, and as such is a physically demanding experience that requires time to recover, both mentally and physically (Chapman & Charles, 2018). Moreover, the early postnatal period is also an immensely stressful period of adjustment and learning how to look after a newborn baby (Shaw et al., 2006; Uriko, 2019).

Considering that birth and the early postnatal period may involve experiences of acute stress, it is possible that there is an impact on executive functioning. Studies have shown that executive functioning processes are negatively affected by acute stress (Oei et al., 2006; Schoofs et al., 2008). One study in particular has shown that acute stress can impact a person's ability to flexibly task-switch (Plessow et al., 2012). The present study found no significant relationship between PF and birth satisfaction or birth expectations, yet participants described PF-related processes in the qualitative interviews. It could be that the acute stressors of birth and new parenthood impair executive functioning in the postnatal period. Having impaired executive functioning may limit an individual's ability to engage in higher-order reflective skills that are required by a measure such as the CompACT. Whereas, in an interview, the individual is being probed by the researcher to engage their reflective skills and this may explain why PF was not found to have a relationship with birth satisfaction, yet was described as playing a role in sense-making processes of birth in the present study.

9.3. Interview Processes

The discrepancies between scores in PF and descriptions of PF-related skills in the present study may be partially explained by the interview process of Phase Two. The present study adopted a semi-structured interview schedule to collect data on women's descriptions of what helped or hindered their sense-making of birth. The interview schedule (Appendix J) adopted a probing style of communication whereby the researcher asked several questions and follow-up questions in an attempt to understand the components of the participant's sense-making processes. Research interviews can be understood as a conversational technique used as a mode of knowing (Brinkmann, 2013). From this point of view, the interview itself could have constructed knowledge about and have formed part of the participants sense-making processes. The conversational technique of research interviews involves processes that serve to access knowledge about a phenomenon that a self-report measure does not involve.

Through engagement in a research interview, the participants who took part in Phase Two of the present study may have had an additional opportunity to form a narrative of their birth experience that the remaining participants did not have. Narratives are understood to be a complex representation of an event, or series of events, that is described in a coherent story (Hutto, 2007). We can form a narrative through storytelling, whereby we share our experiences with others from our own perspective (Meretoja, 2018). Furthermore, storytelling can be understood as a strategy used to develop understanding in a meaningful context (Herman et al., 2005). It could be suggested that the participants who took part in Phase Two were engaging in a form of storytelling through the interview process. As such, they may have been developing knowledge and an understanding of their sense-making processes of birth at the time of the interview. As participants completed the questionnaire set before taking part in the interview, this understanding of their own sense-making processes may not have been available at the time of completing the questionnaires.

9.4. Extended Discussion of Inductive Thematic Analysis Findings

The inductive TA aimed to understand what women describe as playing a role in helping and/or hindering their sense-making of birth without the constraints of the 'HexaFlex' framework used in the deductive TA. It was acknowledged that even if PF-processes were found to play a role in sense-making of birth it would be unlikely that they would be the only factors involved in sense-making. As such, the inductive analysis looked for any descriptions of sense-making processes. The inductive TA findings highlight the complexity of sense-making of birth and this reflects other findings related to the birth experience. For example, a qualitative systematic review explored what matters to childbearing women and found that familial experiences as well as socio-cultural norms and values play an important role in what matters to women (Downe et al., 2018). Familial experiences and socio-cultural norms and values are unique to an individual and this reiterates the complexity of birth experiences and illustrates the importance of nuance in forming an understanding of how we come to make sense of birth.

Interestingly, one of the most salient themes constructed in the inductive TA was 'Support & Care'. Having good quality support and care throughout the birth experience and postnatally was described as being essential to facilitating sense-making of birth. This finding echoes other findings in perinatal research. For instance, a systematic review found lack of social support to be a significant factor in the development of postnatal depression (Norhayati et al., 2015). Similarly, continuous support during labour has been found to have significant positive outcomes for women and their infants, including decreased number of emergency caesarean-sections, shorter labours and fewer reports of negative birth experiences (Bohren et al., 2017). Therefore, the present study's findings may suggest that the mechanism by which support and care has such positive outcomes for women is through the facilitation of sense-making of birth.

The theme 'Preparedness' described how engaging in the right kind of birth preparation can be helpful when it comes to making sense of birth. Participants' descriptions within the theme of 'Preparedness' highlighted that the type and

quality of birth preparation is important. For example, Isabella reported watching 'One Born Every Minute' (Temple & Moore, 2010-2018) as part of her birth preparation, yet did not feel as though she was prepared for birth. Research has argued that One Born Every Minute is a misrepresentation of birth and that it is problematic due to representing women as passive subjects with little to no contribution in decision-making processes (De Benedictis et al., 2019). It could be argued that One Born Every Minute is not intended to prepare women for birth. However, it would not be unreasonable to think that Isabella is not alone in using it a source of education and information about birth.

Use of television programmes, such as One Born Every Minute, may reflect the lack of access to high-quality antenatal education offered on the NHS. Antenatal classes offered on the NHS vary widely across localities, with some localities having had classes withdrawn or number of classes reduced due to cuts in government funding (Tomintz et al., 2013). The National Childbirth Trust (NCT) are the biggest provider of antenatal classes in the UK, however, courses cost around £175 and discounts are only available for those with a household income of £30,000 or less (The National Childbirth Trust, 2021). Access to high-quality antenatal education is therefore limited and this may lead to women engaging in less-optimal types of birth preparation.

The present study's finding that high-quality birth preparation helps sense-making in birth is supported by the literature on the effectiveness of childbirth preparation. One study, a randomised control trial, showed that a skills-based childbirth education class can increase childbirth self-efficacy (Howarth & Swain, 2019). Another study explored the effectiveness of a mindfulness-based childbirth education class and found that it can empower women to take an active role in decision making during birth, and also increases sense of control during birth (Fisher et al., 2012). Similarly, Akca et al. (2017) examined the effectiveness of a birth preparation programme and found that the programme improved birth satisfaction through enabling women to take an active role in decision-making during birth. These studies support the present study's findings that birth preparation plays an important role in sense-making of birth.

9.5. Extended Clinical Implications

As WHO have declared that maternal mental health is a global and major public health concern it is imperative that services are providing high-quality maternity and perinatal mental health services (World Health Organization, 2020). With that in mind, the present study could help to inform possible changes to current clinical practice. The present study's finding that talking plays an important role in the sense-making of birth could be implemented into clinical practice. For example, healthcare practitioners could routinely provide opportunity to discuss the birth, should the birthing person wish to do so.

Debriefing following birth is one of the ways maternity services have attempted to provide an opportunity for the birthing person to discuss their birth experience. Postnatal debriefing was introduced into NHS maternity services in the late 1990s (Baxter et al., 2014). However, a Cochrane review concluded that there is no evidence for the effectiveness of debriefing (Rose et al., 2002). Following this, the National Institute of Health and Care Excellence (NICE) recommended that postnatal debriefing should not be offered by maternity services (National Institute for Health and Care Excellence [NICE], 2007). However, more recent research has shown that having an opportunity to discuss birth is viewed favourable by women, despite a lack of evidence for debriefing reducing postnatal depression and birth trauma (Borg Cunen et al., 2014). Furthermore, it is suggested that women should be offered the opportunity to discuss their birth in an unstructured way and that we should use alternative terms from debriefing to describe such an approach, such as 'childbirth review' (Sheen & Slade, 2015). This type of support should also be offered at different time points and not just in the few hours or days post-birth (Slade et al., 2021). The present study's findings support these findings from current research and therefore it is recommended that birthing people are provided with some an opportunity to discuss their birth with healthcare practitioners and that this is offered at different time points across the postnatal period.

The present study's finding that the 'Influence of others' is important in sense-making of birth could also be meaningful for clinical practice in maternity care. Participants in the present study reported that others have the potential to make their birth experience better or worse. It was important for participants to develop good relationships with those around them and that the support received was empathic, validating and consistent. Continuous support in birth is well-evidenced as having the potential to improve outcomes for women and their infants in birth yet is not standard practice in the UK (Bohren et al., 2017). The present study's findings support the provision of providing continuous support during birth. Therefore, it is suggested that maternity services implement continuous support during birth into routine clinical practice.

Despite the lack of evidence that PF increases birth satisfaction in the present study, the qualitative findings support the idea that PF-skills may help with sense-making in birth. Further to this, previous research has suggested that ACT-based interventions could be effective at reducing anxiety and depression symptoms in postnatal individuals (Monteiro et al., 2019). This finding suggests that PF may play an important role in helping postnatal individuals to manage difficult feelings, thoughts and memories associated with birth. It would therefore be beneficial to further explore the role of PF in the birth experience. Such research could provide a better understanding of how ACT-based interventions could be implemented into clinical practice.

9.6. Extended Limitations

The sample size was underpowered. As previously mentioned, this should not mean that the study's results are dismissed but instead should be approached with caution. It is worth considering what impact the COVID-19 pandemic had on attrition in the present study. The COVID-19 pandemic has had a significant impact on our lives and recent data has shown that around 72% of the UK population are worried about how the pandemic will impact them (Office for

National Statistics, 2020). It is not unreasonable to hypothesise then that participants may have had many additional demands, and worries, in their lives that meant taking part in a research study was less of a priority for them. The COVID-19 pandemic may therefore have negatively impacted attrition in the present study.

The present study is limited in its generalisability due to an unrepresentative sample. One of the reasons why we were unable to recruit a generalisable sample may be due to the recruitment methods. We recruited using social media and this was mostly through Instagram due to difficulties in recruiting from other social media platforms such as Facebook and Twitter. It was intended that the study would be advertised on pregnancy-related Facebook groups, however, almost all of the groups approached by the main researcher refused to allow us to advertise on their page. Furthermore, it is not as easy to find large numbers of pregnant women on Twitter like it is on Instagram. Instagram is home to a number of accounts that post specifically about pregnancy and birth, and therefore it was much easier to approach these accounts to gain access to their followers. However, it is noted that this may have biased the sample in some way due to the high number of white women working in professional jobs that took part in the present study.

According to the SOC report, data from the most recent census (2011) showed that females in the general population are most frequently in jobs that fall into occupational group four, followed by group two – see Table 17 for details of the groups (Office for National Statistics, 2020). The majority of participants were in jobs classified as group two. Therefore, the present study's sample appears to differ in occupations to that of the general population. However, it is possible that the upcoming 2021 census may show a difference in the occupations of the female population. It is also possible that birthing people may differ in their occupations to the occupations of the general population as measured by the 2011 census.

It is problematic that many research studies exploring birth are based on unrepresentative samples (Fair & Morrison, 2012; Goodman et al., 2004; Green

& Baston, 2003; Hauck et al., 2007). Not only does an unrepresentative sample mean that the research findings cannot be generalised, but it also means that whole groups of people are potentially not being provided with evidenced-based care. Unrepresentative samples in birth research are problematic considering that Black women are four times more likely to die in childbirth and Asian women are two times more likely to die in childbirth compared to White women (MBRRACE-UK, 2020). Individuals from an ethnic minority background are also at an increased risk for adverse birth outcomes (Alhusen et al., 2016) and are more likely to be unsatisfied with their birth compared to White women (Hamm et al., 2019). Moreover, individuals from a low socio-economic background are more likely to develop postnatal depression (Norhayati et al., 2015). It is therefore important that research aims to be inclusive and representative through, for example, improved recruitment methods, conducting research specifically aimed at underrepresented groups and improving confidence and trust in research and researchers amongst underrepresented groups.

9.7. Extended Further Research

Future research could explore what impact providing opportunities to talk to a healthcare professional at different time points post-birth has on individuals' wellbeing. Such research could build upon what we already know about postnatal debriefing but further our understanding of how best to provide this opportunity in a way that is both valued by birth people and that has a positive impact on post-birth wellbeing. Future research could also examine the role of PF in the development of perinatal mental health difficulties. The present study did not find a significant relationship between PF and birth satisfaction; however, we did find evidence of PF-related skills in participants descriptions of sense-making of birth. There are potential problems with the conceptualisation of birth satisfaction that meant the role of PF was not captured in the quantitative analyses and we did not examine the relationship between PF and possible perinatal mental health difficulties. There are possible important clinical implications that future research

could explore through examining the relationship between PF and perinatal mental health problems. Such research could inform ACT-based interventions in the perinatal population.

10. Critical Reflections

10.1. Project Development

I knew I needed to choose a research project that I was passionate about if I were to get through three years of hard work dedicated to it. Yet, none of the projects listed in the project booklet provided by the course ignited that flame inside me. So, I set out to develop a project idea myself based on something that I was passionate about. Prior to training I had worked as a Psychological Wellbeing Practitioner (PWP) and during this time I was exposed to a number of stories of traumatic birth, postnatal mental health difficulties and in some extremely sad cases, baby loss. As a PWP I was restricted with what therapeutic support I could offer (I was trained in delivering low intensity Cognitive Behavioural Therapy to individuals with mild-moderate mental health problems). There was a vast lack of services meeting the needs of those who had been negatively impacted by their birth experience. As such, I was often left feeling helpless and guilty that I had limited options for services I could refer on or signpost individuals to so that they could access the right support. A quick search on a research database also highlighted the vast lack of research in the area of birth that was not medical focused. It is not uncommon for issues that mostly affect women to be under researched and I believe this reflects patriarchal societal structures whereby men are, on the whole, in positions of power over women (Cameron, 2018). Of course, birth can be experienced by individuals who do not identify as a 'woman', however, the issues we currently have with birth are a product of many centuries of gender-based oppression and therefore affect birthing people of all genders.

One thing that struck me during the research process is that many of the recommendations made by studies conducted over 30 years ago have still not been implemented. The clinical recommendations made in this project are not new ideas. For example, communication from healthcare professionals during birth has been highlighted as a problem for many years (Kirkham, 1989). It concerns me that issues, such as those with communication, are still being reported by birthing people today. It appears that maternity services require drastic improvement and this has been highlighted by the recent Ockenden review that shone light onto huge systemic failures occurring at Shrewsbury and Telford Hospital NHS Trust whereby hundreds of families have been left bereaved by these failures (Department of Health and Social Care, 2020).

10.2. Data Analysis Reflections

I had become acutely aware of the inequalities faced by birthing people and therefore it became very important to me that I did this research project, the women who were directly involved in it and those it may indirectly effect, justice. As such, I felt a huge amount of pressure during the analysis and write up of the project results to 'get it right'. The early passages of my reflexive research diary show how this pressure was presenting itself:

I am finding myself feeling torn and thinking that I'm being unreasonable for saying something is e.g. 'fusion' when you can understand that the person's thoughts/feelings in that situation were valid. It feels like I am invalidating their experiences even though I know that perhaps holding onto those thoughts, as valid as they are, is not the most helpful thing for this person. E.g., "I felt like they didn't care about me" – this can be understood in terms of fusion – but what if there was truth in this? What if the way the professionals treated her showed that they didn't care? What if my interpretations of PF-processes overshadow potential oppressive practices? (09/12/20: Reflexive Research Diary)

This passage from my reflexive research diary prompted me to schedule in a research tutorial with my supervisors. It was from this meeting I was able to recognise how my own biases in how I viewed maternity services was potentially influencing the analysis. I was advised to take a step back, remind myself of my epistemological positioning, and recognise that the analysis was designed to answer specific research questions. From then on, I was able to hold my own biases in mind throughout the analysis to minimise any risk of these influencing the results.

The inductive analysis enabled me to have some freedom from only searching for specific PF-related aspects of sense-making of birth. It was at this point that I began to recognise that, yes, PF appeared to play some role in sense-making of birth, but PF does not make up the entirety of sense-making processes:

Interestingly, now I am inductively coding, the perception/analysis of her sense-making is very different. PF sees the sense-making as being an internal experience, influenced by own thoughts and feelings. Whereas, inductively I can code for more of the external factors. This means that the PF analysis makes it appear as though someone is very inflexible and fused to unhelpful thoughts that taint her experiences, whereas inductively it appears that the staff were communicating poorly, not building a relationship, not listening etc and that this then of course influences her overall birth experience. (12/12/20: Reflexive Research Diary)

Coding is a simplistic look at their experiences – whereas when I come to write it up, I will be amalgamating a number of factors. PF is perhaps not the only factor, or not an overly important factor in the sense-making of birth experiences. The combination of many factors is what makes up sense-making. (20/12/20: Reflexive Research Diary)

The above passages of my reflexive research diary demonstrate that I managed to realign with my epistemological positioning of Descriptive Contextualism (which seeks to understand a whole experience through

examining the particulars of the whole) following my research tutorial (Hayes, 1993).

10.3. Write-up Reflections

Writing up a doctoral level research project was never going to be easy. Writing up a doctoral level research project, whilst in the midst of a global pandemic, was extraordinarily difficult. The COVID-19 pandemic has meant most of us have had a complete upheaval of life as we knew it. National lockdown restrictions meant that we were asked to stay at home and only mix with those people we live with. Like many people, all of my usual strategies to unwind, manage stress, and clear my head (e.g., gym, seeing friends, travelling) were taken away from me. For the first time in my working life, I was required to work from home. Completing a doctorate in clinical psychology (DClinPsy) involves training to become a scientist-practitioner. Therefore, the DClinPsy involves completing a research project alongside a clinical placement. My home had become my study space, my workplace, and my gym. It became the place I connected with friends (via Zoom and FaceTime) and the place that I **attempted** to unwind. I was seeing (albeit virtually) clients in my own home, holding their emotions in my personal space, with nowhere to 'let go' of my own accompanying emotions afterwards. My home quickly became associated with the stressors of clinical practice and the stressors of thesis writing and was no longer a place that I felt I could relax in.

During the write-up of my research project, I was also completing my clinical placement in adult learning disabilities. This placement involved lots of complex work in an area that I had no previous experience working in. I had to learn a new way of working indirectly with clients and it involved learning new therapeutic theories and models. I found this extremely challenging because my 'head space' was already full up of the complexities of my research project and so I had little room for all of this new knowledge I needed to acquire. On top of that, I had extremely diminished resources that would enable me to clear my

head. I recognised that I was struggling, and I spoke to my placement supervisors (I had two during this placement) about how I was feeling. Utilising my clinical supervision to discuss these feelings was so helpful. Both of my supervisors validated my experiences and were fully appreciative of how difficult it was for me. We discussed making changes to my workload on placement, but it turned out that just taking away my worries about 'not doing enough' and 'not achieving what I should be' was plenty enough for me to continue muddling through.

10.4. Terminology Reflections

Back in 2018 when this project idea was first developed I had ignorantly not considered the idea that individuals who do not identify as women can also experience birth. I, like many people in society, had thought that the issues surrounding birth only affect women. I now realise that this is not the case. However, by the time I had realised this I had already advertised a research study asking for "women" and "first-time mums" to take part. I had inadvertently and indirectly excluded birthing people who do not identify as a woman. I attempted to rectify this by changing my terminology to be more inclusive by using 'birthing person' and 'parents' instead of 'woman' and 'mother'. However, doing this became problematic when I encountered difficulties with keeping to a word limit and referring to participants in studies that, like mine, had recruited 'women'. For these reasons I made the decision to use gendered terminology when referring to the participants in this research study and research studies that also referred to their participants with gendered terms. I am on a journey to improving inclusivity in my own practice and language and I recognise that I may not always get it right. Despite knowing that I may make mistakes along the way, I intend to keep learning and improving my language in my personal and professional life.

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12. Appendices

Appendix A – Journal of Prenatal and Perinatal Psychology and Health Author Guidelines

Guidelines for Contributing Authors

The Journal of Prenatal and Perinatal Psychology and Health accepts only original material that is not under consideration by any other publications. Articles should be word-processed and transmitted electronically as a Word document to the Editor. The Editor reserves the right to edit manuscripts for length, clarity, and conformity with the journal's style. The author should retain his/her copy. American spelling should be used. The paper should be between 2,000 and 8,000 words with a 100–word abstract and at least three keywords. (See further guidelines for submitting a manuscript in the current APA Publication Manual (2009), specifically, “Author Responsibilities” (pp. 228-231)

The journal is interested in publishing theoretical and empirical articles utilizing data gained from clinical work, experimental research, case studies, and self-report.

Among the areas of special interest are:

Psychological factors that affect conception, pregnancy, labor, delivery and the post-partum period;

The reciprocal mechanisms of interaction between the pregnant mother and her unborn and sentient child and the mother and her newborn;

The influence of the family, society, and the environment on the pregnant mother and her unborn child;

Evidence-based measures that will improve the emotional well-being of mothers, fathers, and newborns;

The psychological effects of medical technology during conception, pregnancy, labor, and delivery on all parties concerned;

Methods of prevention and intervention/resolution of prenatal and perinatal traumas with children and adults;

Interfaces between prenatal and perinatal psychology and medicine, genetics, developmental psychology, anthropology, ethics, and the law.

Illustrations, Figures and Tables

All illustrations and tables should be included separately from the manuscript (in a separate document) and should be clearly identified in Arabic numerals, showing which is the top of the illustration if this is not obvious. Tables must supplement the text without duplicating it.

Refer to APA publication manual for detailed instructions on tables and figures. Illustrations should either be black-and-white glossy photographs or India ink drawings.

Tables, figures, and illustrations should include an appropriate title and be in **jpg or png** file format.

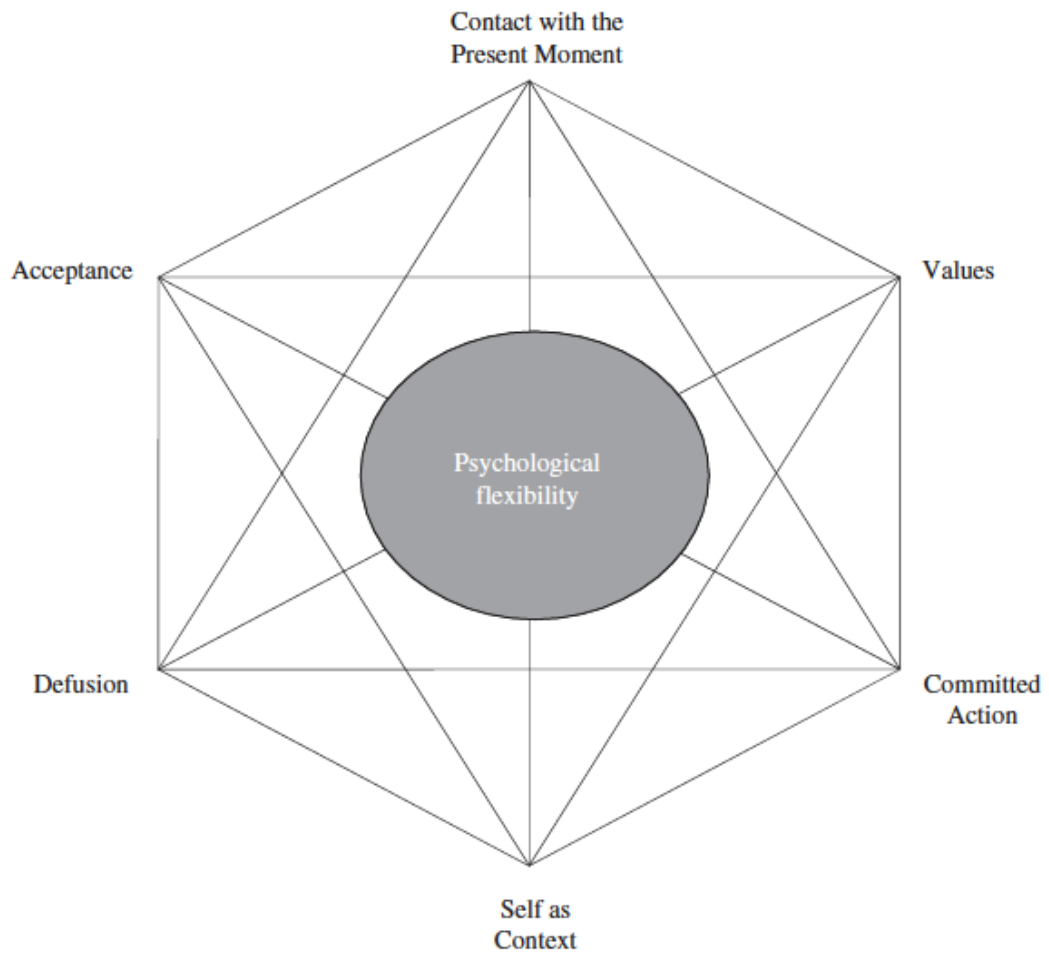
APA Style

Formatting and referencing must follow APA style. References should be limited to work cited in the article. All cited material should be on the reference list.

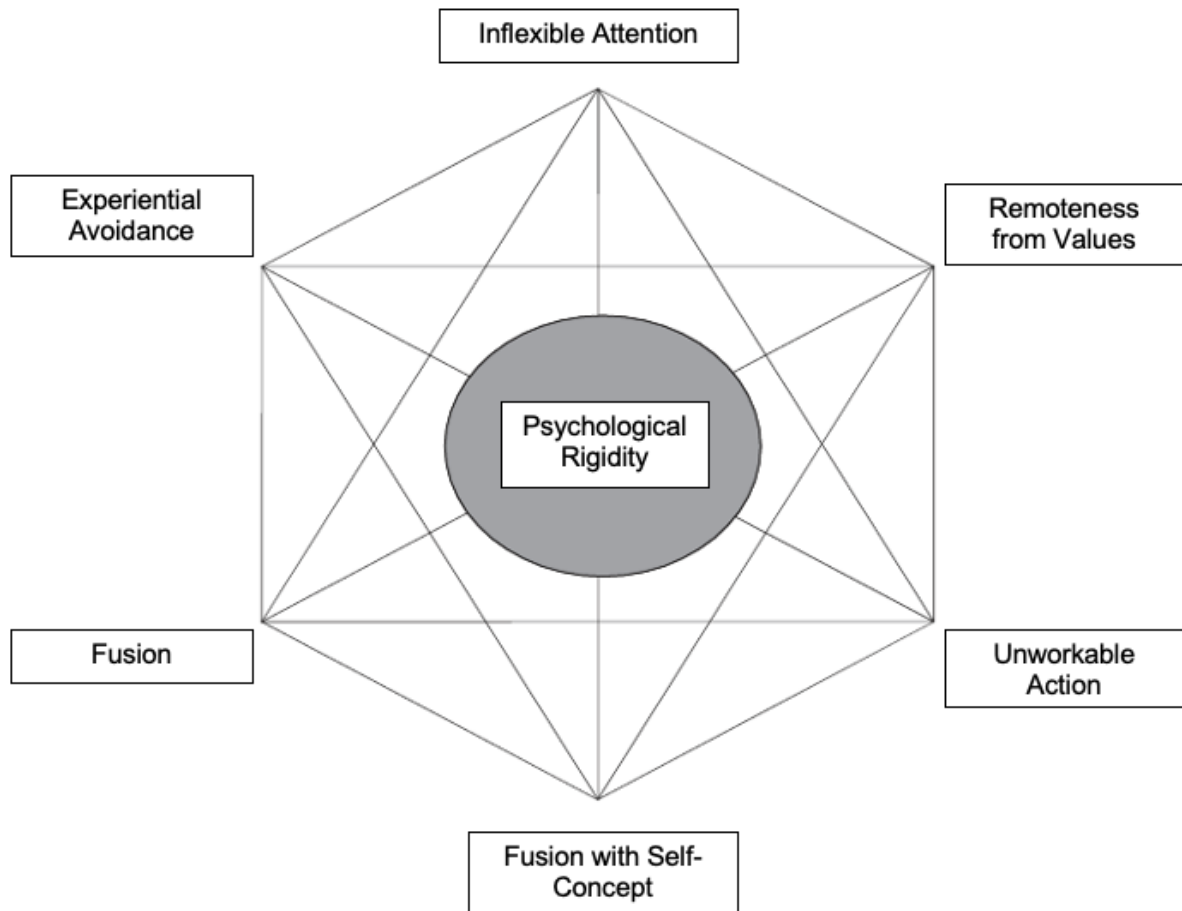
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Email submissions to: journal.editor@birthpsychology.com

Appendix B – Six Core Processes of Psychological Flexibility (HexaFlex)



Appendix C – Six Cores Pathological Processes of Psychological Rigidity



Appendix D – Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT)



Name:	Date:
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Please rate the following 23 statements using the scale below:

	0	1	2	3	4	5	6
	Strongly disagree	Moderately disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Moderately agree	Strongly agree
1. I can identify the things that really matter to me in life and pursue them	0	1	2	3	4	5	6
2. One of my big goals is to be free from painful emotions	0	1	2	3	4	5	6
3. I rush through meaningful activities without being really attentive to them	0	1	2	3	4	5	6
4. I try to stay busy to keep thoughts or feelings from coming	0	1	2	3	4	5	6
5. I act in ways that are consistent with how I wish to live my life	0	1	2	3	4	5	6
6. I get so caught up in my thoughts that I am unable to do the things that I most want to do	0	1	2	3	4	5	6
7. I make choices based on what is important to me, even if it is stressful	0	1	2	3	4	5	6
8. I tell myself that I shouldn't have certain thoughts	0	1	2	3	4	5	6
9. I find it difficult to stay focused on what's happening in the present	0	1	2	3	4	5	6
10. I behave in line with my personal values	0	1	2	3	4	5	6
11. I go out of my way to avoid situations that might bring difficult thoughts, feelings, or sensations	0	1	2	3	4	5	6
12. Even when doing the things that matter to me, I find myself doing them without paying attention	0	1	2	3	4	5	6
13. I am willing to fully experience whatever thoughts, feelings and sensations come up for me, without trying to change or defend against them	0	1	2	3	4	5	6
14. I undertake things that are meaningful to me, even when I find it hard to do so	0	1	2	3	4	5	6
15. I work hard to keep out upsetting feelings	0	1	2	3	4	5	6
16. I do jobs or tasks automatically, without being aware of what I'm doing	0	1	2	3	4	5	6
17. I am able to follow my long terms plans including times when progress is slow	0	1	2	3	4	5	6
18. Even when something is important to me, I'll rarely do it if there is a chance it will upset me	0	1	2	3	4	5	6
19. It seems I am "running on automatic" without much awareness of what I'm doing	0	1	2	3	4	5	6
20. Thoughts are just thoughts – they don't control what I do	0	1	2	3	4	5	6
21. My values are really reflected in my behaviour	0	1	2	3	4	5	6
22. I can take thoughts and feelings as they come, without attempting to control or avoid them	0	1	2	3	4	5	6
23. I can keep going with something when it's important to me	0	1	2	3	4	5	6

Appendix E – Pre-birth Narrative of Expectations

Please provide a few sentences or bullet points about what you expect from your childbirth. This can include details from your birth plan (if you have written one). For example, you may want to think about your birth preferences, how you expect you will feel before, during and after your birth, what others (such as partners, family, healthcare professionals) will be like during your birth etc. Please note it is not limited to these examples so feel free to write whatever you like here:

Appendix F – Birth Satisfaction Scale – Revised



Birth Satisfaction Scale-Revised (BSS-R) (Hollins Martin and Martin, 2014)

Tips for filling in the questionnaire

- (a) Find a quiet place where you will be undisturbed.
- (b) Read each statement carefully and once you understand what is being asked, respond fairly quickly. Do not ponder too long over each statement.
- (c) The statements are structured as follows. Please circle one of the following.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (d) Please do not miss out any of the items and try to be as honest as possible.

Please respond to the following statements:

- (1) I came through childbirth virtually unscathed.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (2) I thought my labour was excessively long.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (3) The delivery room staff encouraged me to make decisions about how I wanted my birth to progress.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (4) I felt very anxious during my labour and birth.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (5) I felt well supported by staff during my labour and birth.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (6) The staff communicated well with me during labour.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (7) I found giving birth a distressing experience.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (8) I felt out of control during my birth experience.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (9) I was not distressed at all during labour.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------
- (10) The delivery room was clean and hygienic.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	------------------------------	----------	----------------------

Appendix G – Post-birth Measure of Expectations
Did your childbirth go as you had expected?

Completely

Mostly

Hardly

Not at all

Appendix H – Post-birth Narrative of Expectations

Please include a few sentences or bullet points about why you felt your birth had or had not gone as you had expected:

Appendix I – Type of Birth

What type of birth did you have?

Vaginal birth

Vaginal birth with assistance (e.g. forceps, ventouse)

Emergency c-section

Elective or planned c-section

Other

Prefer not to say

Appendix J – Interview Schedule

1. How do you feel about your childbirth?

- Satisfied, not satisfied, partly satisfied?
- Unhappy with any aspect?
- Pleased with any aspect?
- What emotion did you feel towards your childbirth?

2. Were your expectations of childbirth met?

- What were your expectations?
- How were they met or not met?
- Were there any aspects that didn't go as you expected and were there any aspects that went as you had expected?

3. What is your understanding of why your childbirth went this way?

- How do you explain why it went that way?
- What, if anything, justified why it went this way and why?

4. How did you come to have this understanding of your birth?

- Did anything influence your understanding?
- Own prior knowledge, own values, own beliefs?
- Others explanations?

5. What helped you to make sense of your childbirth?

- Did you, anyone or anything do anything that helped and what was this?
- Individual factors: internal (i.e. avoiding thinking about it, pushing to the back of mind, going over it and over it in your mind), external (i.e. speaking with partner/family/friends, speaking with healthcare professionals, doing own research)

6. What, if anything, didn't help or hindered you trying to makes sense of your childbirth?

- Did you, anyone or anything do anything that didn't help or hindered you and what was this?
- Individual factors: internal (i.e. avoiding thinking about it, pushing to the back of mind, going over it and over it in your mind), external (i.e. speaking with partner/family/friends, speaking with healthcare professionals, doing own research)

7. Has how you felt about your childbirth changed since then?

- If yes: How has it changed? What changed? What was it that changed it?

- If not: Is there anything that might explain why your feelings about the childbirth haven't changed? i.e. you didn't feel it needed to change, you didn't think there was any point in trying to change it, you didn't want to change it?

Consider both individual and systemic factors i.e. were there explanations involving what you personally did or didn't do and were there explanations that others or the system around you (such as services) did or didn't do?

Appendix K – Phase One Screening Questions

Do **all** of the following criteria apply to you?

1. You are a first-time mother
2. You are at least 28 weeks pregnant
3. You currently reside in the UK
4. You are at least 18 years of age

Appendix L – Ethics Amendment (Feb 2020) Approval Letter



DPAP Committee

20/02/2020

Supervisor:

Applicant : Harriet Ball

Project: Project Id The Role of Psychological Flexibility In Birth Experience

Your amendment ref: DPAP - 2020 - 0403 - 1 has been approved. Please conduct your study following your approved procedures or you will be operating outside your ethical approval.

yours sincerely

A handwritten signature in black ink that reads "David Daley". The signature is written in a cursive style with a long, sweeping tail on the letter "y".

Professor David Daley

Co-Chair of DoPAP Ethics Subcommittee

A handwritten signature in black ink that reads "Amanda Griffiths". The signature is written in a cursive style with a long, sweeping tail on the letter "s".

Professor Amanda Griffiths

Co-Chair of DPAP Ethics Subcommittee

Appendix M – Transcription Service Agreement



PURCHASE OF TRANSCRIPTION SERVICES

This Agreement is dated 2020

Parties

- (1) **THE UNIVERSITY OF NOTTINGHAM**, a body corporate incorporated by Royal Charter and registered with number RC000664, of University Park, Nottingham NG7 2RD (the "University").
- (2) **TRANSCRIPT DIVAS LIMITED**, a company incorporated and registered in England and Wales with company number 08785529 whose registered office is at 27 Old Gloucester Street, London, WC1N 3AX (the "Supplier").

Background

The parties have agreed that the University will purchase and the Supplier will provide the Services (defined below) on the terms of this Agreement.

Agreed

I. Term

- 1.1 Subject to Clause 1.2, this Agreement will begin as at the date of this Agreement (the "Commencement Date").
- 1.2 This Agreement will commence on the Commencement Date and will continue for a period of three months unless otherwise terminated in accordance with the Terms and Conditions.

II. Services

- 1.3 The Services are defined as any services in the Specification set out in Part 1 of Schedule 1.

III. Delivery

- 1.4 The Delivery Date for the Services is fourteen Working Days from the date of this Agreement. Delivery will be made on the Delivery Date between the hours of 09:00 and 17:00.
- 1.5 The Delivery Address is harriet.ball1@nottingham.ac.uk.

IV. Price

- 1.6 The Prices for the Services are set out in Schedule 2.
- 1.7 The Price will be exclusive of any applicable value added tax (which will be payable by the University subject to receipt of a VAT invoice).
- 1.8 The Supplier may not increase any Price without the prior written consent of the University.

V. Data Protection

- 1.9 The Supplier shall process Personal Data only to the extent, and in such a manner, as is necessary for the purposes specified in the table below:

Description of Personal Data	Method and purpose of processing	Duration
The Personal Data relates to the research participants of the study titled 'The Role of Psychological Flexibility in Birth Experience'.	Transcription of recordings and storage of transcriptions, in electronic format, for the purpose of transferring transcriptions to the University.	To be deleted after the University confirms receipt and accessibility of data.

1.10 The above table can be unilaterally modified by the University from time to time by giving notice to the Supplier.

VI. Compliance Form

The Supplier will certify compliance with Condition 15 of the Terms and Conditions within one month of the Commencement Date in the form set out at Schedule 3.

VII. Terms and Conditions

The Terms and Conditions set out in Schedule 4 apply to this Agreement.

VIII. Interpretation

The defined terms and other provisions at Schedule 5 apply to this Agreement.

IX. University Representative

The University Representative is:

Name: Dr Danielle De Boos.....

Position: ...Programme Co-director, Doctorate in Clinical Psychology....

**Schedule 3
Compliance Form**

From: Transcript Divas Limited

To: Danielle De Boos

Address: 27 Old Gloucester Street, London
WC1N 3AX

Address: YANG Fujia
Jubilee Campus
Wollaton Road
Nottingham
NG8 1BB
UK

Tel No.: +44 20 7558 8846

Tel No.: 66696

Fax No.:

Fax No.:

Date: 2nd October, 2020

(NOTE - the first compliance form will be delivered within a month of the Commencement Date of this Agreement and thereafter annually on the anniversary of the Commencement Date.)


For the attention of the University Representative

Agreement for the purchase of services between The University of Nottingham and Transcript Divas Limited dated 2020 (the "Agreement")

Terms in this Compliance Form will have the same meaning as in the Agreement unless otherwise defined.

I, Andrew Dodson, Director on behalf of Transcript Divas Limited, hereby confirm that, Transcript Divas Limited:

- (a) complies with all applicable laws, regulations, codes and sanctions relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;
- (b) does not engage in any activity, practice or conduct which would constitute an offence under sections 1, 2 or 6 of the Bribery Act 2010; and
- (c) complies with the University's Policies and Procedures including but not limited to the terms and conditions of the Agreement.

Signed by: 

P.P.

Name:

For and on behalf of **TRANSCRIPT DIVAS LIMITED**

Received by The University of Nottingham

_____ (Signature)

This Agreement has been entered into on the date stated at the beginning of it.

Signed by

Name:Dr Danielle De Boos

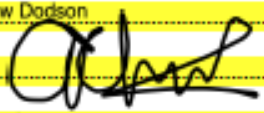
Signature:.....

Position:Programme co-director, Doctorate in Clinical psychology.....

For and on behalf of **THE UNIVERSITY OF NOTTINGHAM**

Signed by

Name: Andrew Dodson

Signature: P.P. 

Position: Director

For and on behalf of **TRANSCRIPT DIVAS LIMITED**

Appendix N – Worked transcripts illustrating both deductive and inductive coding

Participant 8

(Total interview length 01:09:22)

Interviewer = **bold** Potential quote = ***bold/italic/underlined*** Deductive = **green** Inductive = **yellow** Both inductive+deductive = **blue**

<p>59. Fusion: fused to birth plan/idea of how birth would be</p>	<p>56 was [unintelligible 00:07:18] being charged at some point but 57 then when suddenly I had 10 people, like doctors around me 58 talking about things that I didn't really understood, that's fine, 59 because I was like in shock. So, yeah, so I didn't really - I feel 60 really disappointed, yeah this is what I could say. It's, yeah, 61 normal I would be really - care about my birth plan, went through 62 this, nothing really. So, I feel really yeah because I read that book 63 Milli Hill, Give Birth Like a Feminist and so when I was going into 64 hospital which actually was my first point because we were 65 supposed to give birth in the birth centre. 66 67 Oh yeah.</p>	<p>57. Poor communication from doctors</p>
<p>69. Fusion with self-concept: fused to idea of self being strong</p>	<p>69 And then so I was - felt like I'm kind of in charge after reading 70 that book, it's like yeah, I will be really strong about things. But 71 at some point everything slipped and even my husband that you 72 know he was with me all the time, he said at some point he felt 73 like he didn't know what was right was actually wrong, so he felt 74 really confused as well. Because even when they asked me about 75 consent, they didn't even wait to basically do things. So, I felt like 76 it's, yeah, it wasn't great, so. Especially that I didn't get - I mean I 77 didn't remember that someone actually give me explanation for 78 this whole situation as well. So, we had a really nice - like you 79 meet with the candles and things like that and yeah, I entered 80 that you know given [unintelligible 00:09:10] in the stirrup which 81 is a completely nightmare that I said if this going to happen to me 82 it's my worst nightmare and it actually happened. So, it was everything actually was written in my birth plan was opposite, really opposite, so, yeah, so I was very disappointed put it that way.</p>	<p>70. Left feeling confused/unaware of what was happening</p> <p>74. Felt rushed</p> <p>76. Poor communication: staff did not explain things</p>
<p>78. Fusion: fused to idea of certain things being bad</p>	<p>83</p>	<p>82. Birth didn't go as planned</p>

Appendix O – Ethical Approval Letters



DPAP Committee

23/10/2019

Supervisor: Danielle De Boos

Applicant : Harriet Ball

Project: Project Id The Role of Psychological Flexibility In Birth Experience

A favourable opinion is given to the above named study on the understanding that the applicants conduct their research as described in the above numbered application. Applicants need to adhere to all conditions under which the ethical approval has been granted and use only materials and documentation that have been approved. If it is proposed that if an approved project is subsequently subject to any significant change (for example to the date or place of data collection, or measures used), an Amendment Form should be submitted. This can be done in 'Create Sub Form' in the Actions Menu on the left hand side of the page on the on-line system: Select 'Amendment Form'.

yours

A handwritten signature in black ink that reads "David Daley". The signature is written in a cursive style with a large, sweeping flourish at the end.

Professor David Daley

Co-Chair of DPAP Ethics Subcommittee

A handwritten signature in black ink that reads "Amanda Griffiths". The signature is written in a cursive style with a large, sweeping flourish at the end.

Professor Amanda Griffiths

Co-Chair of DPAP Ethics Subcommittee



University of
Nottingham

UK | CHINA | MALAYSIA

DPAP Committee

20/02/2020

Supervisor:

Applicant : Harriet Ball

Project: Project Id The Role of Psychological Flexibility In Birth Experience

Your amendment ref: DPAP - 2020 - 0403 - 1 has been approved. Please conduct your study following your approved procedures or you will be operating outside your ethical approval.

yours sincerely

A handwritten signature in cursive script that reads "David Daley".

Professor David Daley

Co-Chair of DoPAP Ethics Subcommittee

A handwritten signature in cursive script that reads "Amanda Griffiths".

Professor Amanda Griffiths

Co-Chair of DPAP Ethics Subcommittee



University of
Nottingham
UK | CHINA | MALAYSIA

DPAP Committee

12/06/2020

Supervisor:

Applicant : Harriet Ball

Project: Project Id The Role of Psychological Flexibility In Birth Experience

Your amendment ref DPAP - 2020 - 0403 - 1 has been approved. Please conduct your study following your approved procedures or you will be operating outside your ethical approval.

yours sincerely

A handwritten signature in black ink that reads "David Daley".

Professor David Daley

Co-Chair of DoPAP Ethics Subcommittee

A handwritten signature in black ink that reads "Amanda Griffiths".

Professor Amanda Griffiths

Co-Chair of DPAP Ethics Subcommittee

Appendix P – Participant Information Sheet



University of
Nottingham
UK | CHINA | MALAYSIA

Participant Information Sheet

(Draft Version 5.0 / Final version 4.0: 05.06.20)

Ethics Reference Number: [403](#)

Title of Study: The Role of Psychological Flexibility In Birth Experience

Name of Chief Investigator: Harriet Ball

Local Researcher(s): Dr Rachel Sabin-Farrell and Dr Danielle De Boos

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Our contact details are provided if you wish to ask any questions or discuss the study in more detail. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

What is the purpose of the study?

The purpose of the study is to investigate whether a concept known as Psychological Flexibility helps women to make sense of their birth. It also aims to investigate whether the level of Psychological Flexibility a woman has plays a part in how she feels about her childbirth experience. This will be investigated through measuring a group of women's Psychological Flexibility pre and post birth to see whether a relationship between Psychological Flexibility and birth satisfaction can be observed. Following this the study will explore a group of women's experiences of childbirth and how they made sense of their births. This will help us to identify any specific aspects that help to increase Psychological Flexibility or aspects that may hinder it. It is anticipated that the findings will inform current practice in perinatal care and could lead to developments in service delivery and intervention for perinatal mental health problems.

The study will form part of a submission towards the Trent Doctorate in Clinical Psychology.

Why have I been invited?

You will have heard about the study through social media and you are being invited to take part because you are at least 28 weeks pregnant. We are inviting 90 participants like you to take part.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and you will be prompted to sign a consent form to confirm that you wish to take part. If you decide to take part you are still free to withdraw at any time and without giving a reason. This would not affect your legal rights.

What will happen to me if I take part?

There are two phases to the research study. Everybody who consents to take part will take part in Phase One. We will then invite a smaller number (around 10-12) of those participants to take part in Phase Two.

The amount of time you will be involved in the study could be anywhere between 6 weeks and 32 weeks. This will depend on when you complete the first set of questionnaires during pregnancy and when you complete the second set of questionnaires after birth. For example, if you completed the first set at 28 weeks pregnant and then the second set at 6 weeks post-birth this would mean you would have been involved for roughly 18 weeks Whereas if you completed the first set at 39 weeks pregnant and the second set at 6 weeks post-birth you would be involved for roughly 7 weeks. It also depends on whether or not you take part in Phase Two of the study. If you do take part in Phase Two this would mean that you are involved for a bit longer so that we can arrange an interview with you. The research itself will last until October 2021.

Phase One:

You will be asked to answer a series of questions and complete a set of questionnaires on two occasions. The first set of questionnaires will need to be completed now whilst you are pregnant and will take approximately 15-20 minutes to complete. The second set of questionnaires will need to be completed when you have had your baby and will take approximately 15-20 minutes to complete. We will send out the second questionnaire set at 6 weeks after your due date. It is important that we receive both questionnaires sets back as without the second one we will be unable to use the first questionnaire set. However, we know that life with a new born can be very busy so if we have not received the second questionnaire set back from you within two weeks after they are sent to you we will send you a reminder.

Phase Two:

If you are interested in being involved further in the research we will ask you to consent to us contacting you following completion of Phase One to take part in Phase Two. We will then invite around 10-12 participants who consented to this to take part. We will select individuals based on their characteristics (such as age and ethnicity) and their scores on the questionnaires with the aim of having a sample of women who represent a range of demographics and scores as much as possible.

If we contact you to take part in Phase Two this will involve us setting up a time to go through some more detailed questions about your experiences of your childbirth. More specifically, we will be asking about how you made sense of how your childbirth went. This will last approximately 60-90 minutes and can be conducted over the telephone, Skype, or, if you live locally to Nottingham then, we can arrange to do this face to face.

The interviews will be audio recorded. These recordings will be identified only by a code, and will not be used or made available for any purposes other than the research project. These recordings will be destroyed at the end of the study.

Below is a diagram showing you how the study will progress and which questionnaires we ask you to complete at each phase of the study.

PHASE ONE

Pre-birth

- **Demographic Questions:** Questions on your age, ethnicity, education level, marital status and occupation
- **CompACT:** Questionnaire that measures Psychological Flexibility
- **Expectations of Childbirth:** A couple of sentences or bullet points outlining your expectations

Post-birth

- **CompACT:** Questionnaire that measures Psychological Flexibility
- **Birth Satisfaction Scale:** Questionnaire that measures satisfaction with childbirth
- **Expectations of Childbirth:** One question asking you to rate how much your expectations were met

We contact 10-12 participants to ask them to take part in Phase Two

PHASE TWO

Interview: We will ask questions aimed to elicit more detail about your experience of childbirth and how you made sense of your childbirth

Expenses and payments

Participants will not be paid to participate in the study. You will be entered into a prize draw to win a £10 Amazon voucher to thank you for your participation. Those participants who also take part in Phase Two will be entered into an additional prize draw to win a £10 Amazon voucher. Travel expenses will be offered for any visits incurred as a result of participation.

What are the possible disadvantages and risks of taking part?

As with all childbirths there is the possibility that the childbirth experience is distressing in some way. If your childbirth experience is distressing in some way then you may experience some discomfort taking part in the study, as you will be asked to think about your childbirth.

What are the possible benefits of taking part?

We cannot promise the study will help you but the information we get from this study may help us to understand ways that we can improve satisfaction with childbirth. This could help to prevent some women from developing difficulties such as post-natal depression and post-partum post-traumatic stress disorder or birth trauma.

What happens when the research study stops?

We will ask you if you would like us to provide you with a summary of the research findings. If you do wish us to do this then we will seek your consent to hold your contact details for this purpose and we will send out the summary findings when the study has stopped.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. The researchers' contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by contacting the Division of Psychiatry and Applied Psychology Research Ethics Committee at MS-DPAPEthics@exmail.nottingham.ac.uk.

Will my taking part in the study be kept confidential?

To link your data in the first questionnaire set with your data from the second questionnaire set we will need to use your details. These will be kept securely on a password protected database at The University of Nottingham. When we input the data from both questionnaire sets into our database we will remove any identifiable information. We will not use any identifiable information in any report or publication of the research.

We will follow ethical and legal practice and all information about you will be handled in confidence.

If you join the study, we will use information collected from you during the course of the research. This information will be kept **strictly confidential**, stored in a secure and locked office, and on a password protected database at the University of Nottingham. Under UK Data Protection laws the University is the Data Controller (legally responsible for the data security) and the Chief Investigator of this study (named above) is the Data Custodian (manages access to the data). This means we are responsible for looking after your information and using it properly. Your rights to access, change or move your information are limited as we need to manage your information in specific ways to comply with certain laws and for the research to be reliable and accurate. To safeguard your rights we will use the minimum personally – identifiable information possible.

We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. We will do everything possible to ensure your answers in this study will remain anonymous

You can find out more about how we use your information and to read our privacy notice at:

<https://www.nottingham.ac.uk/utilities/privacy.aspx>.

The data collected for the study will be looked at and stored by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people from regulatory organisations to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

Your contact information will be kept by the University of Nottingham for 12 months after the end of the study so that we are able to contact you about the findings of the study (only if you advise us that you wish to be contacted). This information will be kept separately from the research data collected and only those who need to will have access to it. All other data (research data) will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team given permission by the data custodian will have access to your personal data.

In accordance with the University of Nottingham's, the Government's and our funders' policies we may share our research data with researchers in other Universities and organisations, including those in other countries, for research in health and social care. Sharing research data is important to allow peer scrutiny, re-use (and therefore avoiding duplication of research) and to understand the bigger picture in particular areas of research. Data sharing in this way is usually anonymised (so that you could not be identified) but if we need to share identifiable information we will seek your consent for this and ensure it is secure. You will be made aware then if the data is to be shared with countries whose data protection laws differ to those of the UK and how we will protect your confidentiality.

Although what you say to us is confidential, should you disclose anything to us which we feel puts you or anyone else at any risk, we may feel it necessary to report this to the appropriate persons.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw we will no longer collect any information about you or from you but we will keep the information about you that we have already obtained as we are not allowed to tamper with study records and this information may have already been used in some analyses and may still be used in the final study analyses. To safeguard your rights, we will use the minimum personally-identifiable information possible.

If you take part in Phase Two of the study then following the interview taking place you can ask to withdraw your data within two weeks. After this time it will no longer be possible to withdraw your data due to the same reasons as outlined above.

What will happen to the results of the research study?

The results of the research study will be written up for the submission of a thesis for the Trent Doctorate in Clinical Psychology by Autumn 2020. The study will also be presented at relevant conferences and we intend to submit the findings for publication in a suitable peer-reviewed journal. You will not be identified in any report or publication. A summary of the results will be emailed to participants who request this. We will seek permission to hold your contact details for purposes of sending the findings to you.

Who is organising and funding the research?

This research is being funded and organised by the University of Nottingham.

Who has reviewed the study?

All research in healthcare is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by The Division of Psychiatry and Applied Psychology Research Ethics Committee and The University of Nottingham.

Further information and contact details

Harriet Ball: harriet.ball1@nottingham.ac.uk

Dr Rachel Sabin-Farrell: Rachel.sabin-farrell@nottingham.ac.uk

Dr Danielle De Boos: Danielle.deboos@nottingham.ac.uk

Appendix Q – Phase Two Consent Form



CONSENT FORM FOR PHASE TWO (Draft Version 2.0 / Final version 2.0: 18.10.19)

Title of Study: The Role of Psychological Flexibility In Birth Experience

Ethics Reference Number: 403

Name of Researcher: Harriet Ball

Name of Participant:

Please initial box

1. I confirm that I have read and understand the information sheet version number 5.0 dated 05.06.20 for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my medical care or legal rights being affected. I understand that once the interview has been completed I have two weeks to withdraw my data after which point my data cannot be erased and that this information may still be used in the project analysis.
3. I understand that the data collected in the study may be looked at by authorised individuals from the University of Nottingham, the research group and regulatory authorities where it is relevant to my taking part in this study. I give permission for these individuals to have access to this data and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential.
4. I understand that the interview will be recorded and that anonymous direct quotes from the interview may be used in the study reports.
5. I understand that the information collected about me will be used to support other research in the future, and may be shared anonymously with other researchers.
6. I know how to contact the researchers if I have questions about this study.
7. I confirm that I am 18 years old or older.
6. I agree to take part in the above study.

Name of Participant

Date

Signature

Name of Person taking consent

Date

Signature

Appendix R – National Services and Organisations Leaflet

National Services and Organisations that we hope you will find useful:

PANDAS

Support and advice for any parent who is experiencing a perinatal mental illness.

www.pandasfoundation.org.uk

Phone: 0843 28 98 401

Tommy's

For those who have experienced the loss of baby or those who are pregnant and want to speak to a qualified midwife for advice and signposting.

www.tommys.org

Phone: 0800 0147 800

Sands

Sands is the stillbirth and neonatal death charity. They operate throughout the UK, supporting anyone affected by the death of a baby, working to improve the care bereaved parents receive, and promoting research to reduce the loss of babies' lives. www.sands.org.uk

Phone: 0800 164 3332

Antenatal Results and Choices (ARC)

ARC is the only national charity helping parents and healthcare professionals through antenatal screening and its consequences www.arc-uk.org

Phone: 0845 077 2290 or 0207 713 7486 via mobile

The Lullaby Trust

The Lullaby Trust raises awareness of sudden infant death syndrome (SIDS), provides expert advice on safer sleep for babies and offers emotional support for bereaved families.

www.lullabytrust.org.uk

Phone: 0808 802 6868

The Miscarriage Association

The Miscarriage Association offers support and information to anyone affected by the loss of a baby in pregnancy, to raise awareness and to promote good practice in medical care.

www.miscarriageassociation.org.uk

Phone: 01924 200 799

Aching Arms

Aching Arms aims to raise awareness of the impact of pregnancy and baby loss and bring some comfort to bereaved parents and their families after the loss of a baby by providing Aching Arms bears.

www.achingarms.co.uk

Phone: 07876 504042

Child bereavement UK

Child Bereavement UK supports families and educates professionals when a baby or child of any age dies or is dying, or when a child is facing bereavement.
www.childbereavementuk.org.uk
Phone: 0800 02 888 40

The Ectopic Pregnancy Trust

The Ectopic Pregnancy Trust believes that the deaths and trauma associated with ectopic pregnancy should be prevented or minimised and seeks to support women and their families through this difficult period of their lives. The Charity also provides Information, Education and Support to medical professionals who treat early pregnancy complications.

www.ectopic.org.uk
Phone: 020 7733 2653

Petals

Petals (Pregnancy Expectations Trauma and Loss Society) provides a specialised counselling service at Addenbrookes Hospital in Cambridge, Queen Charlottes and St Mary's Hospitals in London, the John Radcliffe Hospital in Oxford, and Ipswich Hospital. www.petalscharity.org
Phone: 0300 688 0068

Our Missing Peace

Our Missing Peace campaign to break the silence surrounding child loss. They have created a badge to help all that have been touched by the death of a child as well as trying to make finding support easier.

www.ourmissingpeace.org

SiMBA

SiMBA provide memory boxes, giving parents support to help them to create their most precious memories.

www.simbacharity.org.uk
Phone: 0131 353 0055

The Mariposa Trust (Saying Goodbye)

Saying Goodbye provides comprehensive information, advice, support and much more to anyone who has suffered the loss of a baby, at any stage of pregnancy, at birth or in infancy.

www.sayinggoodbye.org
Phone: 0845 293 8027

MAMA Academy

MAMA Academy has been helping to save babies lives since 2012, by helping to empower parents, educate healthcare professionals and generally raise awareness of the issues around stillbirth and early infant mortality.

www.mamaacademy.org.uk
Phone: 07427 851670

Kicks Count

Kicks Count aims to reduce the UK's stillbirth and neonatal death rate by raising

awareness of baby's movements. www.kickscout.org.uk
Phone: 01483 600828

Appendix S – Phase One Participant Debrief Sheet



Participant Debrief Sheet: Phase One (Draft Version 2 / Final version 2.0: 27.09.19)

Title of Study: The Role of Psychological Flexibility In Birth Experience

Name of Researcher(s): Harriet Ball, Dr Rachel Sabin-Farrell and Dr Danielle De Boos

Contact Details of the Researcher(s) are given at the end.

We'd like to thank you for taking part in Phase One of our research study. This research will provide crucial information and broaden our understanding of the role of Psychological Flexibility in birth satisfaction and inform current practice in perinatal care and could lead to developments in service delivery and intervention for perinatal mental health problems

What was the aim of Phase One of the study?

Phase One aimed to find out two things:

- 1. Whether the level of Psychological Flexibility a woman has is related to how satisfied with their childbirth they are and;**
- 2. Whether their expectations of childbirth being met or unmet played a role in this.**

This was examined by measuring objective scores on questionnaires at two different time points. We then measured whether the scores on the questionnaires changed between the two time points to see if there were any differences in these before and after childbirth.

Prize Draw

You will be entered into a prize draw to win a £10 Amazon Voucher. If you win we will contact you to arrange delivery of the voucher.

Questions and withdrawing

If you have any further questions about the study, please feel free to ask the researcher before you finish or alternatively contact the researcher or their supervisors at any time on harriet.ball1@nottingham.ac.uk. If you wish to withdraw your data please also contact the researcher or supervisor on Rachel.sabin-farrell@nottingham.ac.uk or Danielle.deboos@nottingham.ac.uk with your name. Please note you will only be able to withdraw up until the point of data analysis.

Further help and support

If you have any ethical concerns regarding the current research, your treatment as a participant or your involvement in the study please feel free to contact DPAPEthics@exmail.nottingham.ac.uk.

If you have been affected by any of the issues raised by taking part in this study the following organisations may be able to provide help and advice:

GP (general practitioner): as a first port of call, you can visit your GP for any health concerns you have. If you are not registered with a GP, you can use the online NHS Choices 'find GP services' tool to find your local surgery/practice: www.nhs.uk/Service-Search/GP/LocationSearch/4

Psychological therapies: if you are looking for NHS-run psychological therapies (also called 'talking therapies' or 'IAPT'/'Improving Access to Psychological Therapies': this includes therapies such as counselling, psychotherapy, cognitive behavioural therapy), you can look for your local psychological therapies using the online NHS Choices 'find psychological therapies' tool: [http://www.nhs.uk/Service-Search/Psychological%20therapies%20\(IAPT\)/LocationSearch/10008](http://www.nhs.uk/Service-Search/Psychological%20therapies%20(IAPT)/LocationSearch/10008). Please note that services will vary in whether patients can directly refer themselves to the service or require a GP to do so.

Samaritans

Confidential support for people experiencing feelings of distress or despair.
www.samaritans.org.uk
Phone: 116 123 (free 24-hour helpline)

Mind

Promotes the views and needs of people with mental health problems.
www.mind.org.uk
Phone: 0300 123 3393 (Mon-Fri, 9am-6pm)

PANDAS

Support and advice for any parent who is experiencing a perinatal mental illness. <http://www.pandasfoundation.org.uk>
Phone: 0843 28 98 401 (9am – 8pm every day)

Tommy's

For those who have experienced the loss of baby or those who are pregnant and want to speak to a qualified midwife for advice and signposting.
www.tommys.org
Phone: 0800 0147 800

Sands

Sands is the stillbirth and neonatal death charity. They operate throughout the UK, supporting anyone affected by the death of a baby, working to improve the care bereaved parents receive, and promoting research to reduce the loss of babies' lives.
www.sands.org.uk
Phone: 0800 164 3332

Antenatal Results and Choices (ARC)

ARC is the only national charity helping parents and healthcare professionals through antenatal screening and its consequences

ww.arc-uk.org

Phone: 0845 077 2290 or 0207 713 7486 via mobile

A mental health crisis usually refers to an episode where a person's mental health is at breaking point. For example, a person may be: experiencing suicidal thoughts and feelings, and be self-harming; may be having extreme anxiety or panic attacks; may be hearing voices, experiencing delusions and hallucinations, or feeling extremely paranoid; or other behaviour that feels out of control or out of character for the person, and may be likely to endanger themselves or other people. In a crisis, medical help is vital:

A&E departments at hospitals are where the most serious and urgent medical emergencies are treated. If you're experiencing a mental health crisis, it's absolutely vital to take it as seriously as you would if you had a physical health emergency – and a person should attend A&E if they feel unable to keep themselves safe, may have seriously harmed themselves, and need immediate help.

Emergency GP appointments are available if you need to see your GP quickly in an emergency. These appointments can be used if it is felt that urgent mental health support is needed, but the person feels able to keep themselves safe until the appointment.

More information about crisis support can be found from Mind:

www.mind.org.uk/information-support/guides-to-support-and-services/crisis-services/emergency-support/

NHS 111 / NHS Direct: If you need medical help or advice fast, but it's not a life-threatening situation, you can call NHS 111 (in England) by dialling 111, or NHS Direct (in Wales) on 0845 46 47.

Appendix T – Phase Two Participant Debrief Sheet



University of
Nottingham
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Participant Debrief Sheet: Phase Two (Draft Version 2 / Final version 2.0: 27.09.19)

Title of Study: The Role of Psychological Flexibility In Birth Experience

Name of Researcher(s): Harriet Ball, Dr Rachel Sabin-Farrell and Dr Danielle De Boos

Contact Details of the Researcher(s) are given at the end.

We'd like to thank you for taking part in Phase Two of our research study. This research will provide crucial information and broaden our understanding of the role of Psychological Flexibility in birth satisfaction and inform current practice in perinatal care and could lead to developments in service delivery and intervention for perinatal mental health problems

What was the aim of Phase Two of the study?

Phase Two aimed to explore the aspects of Psychological Flexibility in making sense of the childbirth experience. More specifically, we wanted to find out from women who have been through childbirth what helped or didn't help them to make sense of how their childbirth had gone. The reason for this was to help us to better understand the mechanisms behind Psychological Flexibility so that we can build on these by developing current and new interventions that can help women to have a better childbirth experience.

This was examined by conducting interviews with women like yourself who took part in Phase One of the study and who had recently had a baby. The interviews were designed to hear the views of first-time mums on how they made sense of their childbirth. We transcribed the interviews and then analysed them by picking out the themes that were common amongst the women's experiences. We then considered what the meaning behind these themes were in the context of Psychological Flexibility and birth satisfaction.

Prize Draw

You will be entered into a prize draw to win a £10 Amazon Voucher. If you win we will contact you to arrange delivery of the voucher.

Questions and withdrawing

If you have any further questions about the study, please feel free to ask the researcher before you finish or alternatively contact the researcher or their supervisors at any time on harriet.ball1@nottingham.ac.uk. If you wish to withdraw your data please also contact the researcher or supervisor on Rachel.sabin-farrell@nottingham.ac.uk or Danielle.deboos@nottingham.ac.uk with your name. Please note you will only be able to withdraw up until the point of data analysis (two weeks after the interview took place).

Further help and support

If you have any ethical concerns regarding the current research, your treatment as a participant or your involvement in the study please feel free to contact DPAPEthics@exmail.nottingham.ac.uk.

If you have been affected by any of the issues raised by taking part in this study the following organisations may be able to provide help and advice:

GP (general practitioner): as a first port of call, you can visit your GP for any health concerns you have. If you are not registered with a GP, you can use the online NHS Choices 'find GP services' tool to find your local surgery/practice: www.nhs.uk/Service-Search/GP/LocationSearch/4

Psychological therapies: if you are looking for NHS-run psychological therapies (also called 'talking therapies' or 'IAPT'/'Improving Access to Psychological Therapies': this includes therapies such as counselling, psychotherapy, cognitive behavioural therapy), you can look for your local psychological therapies using the online NHS Choices 'find psychological therapies' tool: [http://www.nhs.uk/Service-Search/Psychological%20therapies%20\(IAPT\)/LocationSearch/10008](http://www.nhs.uk/Service-Search/Psychological%20therapies%20(IAPT)/LocationSearch/10008). Please note that services will vary in whether patients can directly refer themselves to the service or require a GP to do so.

Samaritans

Confidential support for people experiencing feelings of distress or despair.

www.samaritans.org.uk

Phone: 116 123 (free 24-hour helpline)

Mind

Promotes the views and needs of people with mental health problems.

www.mind.org.uk

Phone: 0300 123 3393 (Mon-Fri, 9am-6pm)

PANDAS

Support and advice for any parent who is experiencing a perinatal mental illness. <http://www.pandasfoundation.org.uk>

Phone: 0843 28 98 401 (9am – 8pm every day)

Tommy's

For those who have experienced the loss of baby or those who are pregnant and want to speak to a qualified midwife for advice and signposting.

www.tommys.org

Phone: 0800 0147 800

Sands

Sands is the stillbirth and neonatal death charity. They operate throughout the UK, supporting anyone affected by the death of a baby, working to improve the care bereaved parents receive, and promoting research to reduce the loss of babies' lives.

www.sands.org.uk

Phone: 0800 164 3332

Antenatal Results and Choices (ARC)

ARC is the only national charity helping parents and healthcare professionals through antenatal screening and its consequences

www.arc-uk.org

Phone: 0845 077 2290 or 0207 713 7486 via mobile

A mental health crisis usually refers to an episode where a person's mental health is at breaking point. For example, a person may be: experiencing suicidal thoughts and feelings, and be self-harming; may be having extreme anxiety or panic attacks; may be hearing voices, experiencing delusions and hallucinations, or feeling extremely paranoid; or other behaviour that feels out of control or out of character for the person, and may be likely to endanger themselves or other people. In a crisis, medical help is vital:

A&E departments at hospitals are where the most serious and urgent medical emergencies are treated. If you're experiencing a mental health crisis, it's absolutely vital to take it as seriously as you would if you had a physical health emergency – and a person should attend A&E if they feel unable to keep themselves safe, may have seriously harmed themselves, and need immediate help.

Emergency GP appointments are available if you need to see your GP quickly in an emergency. These appointments can be used if it is felt that urgent mental health support is needed, but the person feels able to keep themselves safe until the appointment.

More information about crisis support can be found from Mind:

www.mind.org.uk/information-support/guides-to-support-and-services/crisis-services/emergency-support/

NHS 111 / NHS Direct: If you need medical help or advice fast, but it's not a life-threatening situation, you can call NHS 111 (in England) by dialling 111, or NHS Direct (in Wales) on 0845 46 47.

POSTER

The Role of Psychological Flexibility in Birth Experience

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Background

Birth satisfaction (BS) is crucial for wellbeing¹. Negative birth experiences are more likely when birth expectations are unmet². Psychological Flexibility (PF)³ could help to adapt and shift expectations during and after birth in order to feel more satisfied with birth.

- Aims:** 1) Investigate if PF moderates birth appraisal, and if this depends on met/unmet expectations, 2) Explore if PF skills are reported in descriptions of sense-making of birth, 3) Explore aspects that help/hinder sense-making of birth

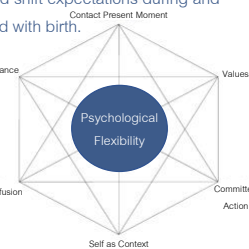
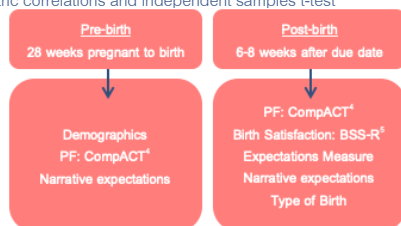


Figure 1. HexaFlex: Six Core Processes of PF

Methods

Two phase, mixed methods sequential explanatory design.

Phase 1: 68 participants (mean age = 33). Data analysed using nonparametric correlations and independent samples t-test



Phase 2: 11 participants took part in Semi-structured interviews analysed using deductive-inductive Thematic Analysis

Discussion

Current conceptualization of birth satisfaction is potentially not capturing important nuances

Discrepancies between Phase 1 and 2 could be explained by the interviews enabling reflective capacity that CompACT was unable to PF appears to play an important role in sense-making of birth Sense-making in birth is not confined to PF processes, but involves many complex processes

Clinical implications: Findings form part of a developing literature base but could suggest changes to maternity care e.g., antenatal education and improving opportunities for sense-making post-birth

Future research could explore the function of acceptance in birth satisfaction and its relationship with perinatal mental health difficulties

Results

Phase 1:

No relationship between PF and BS, or birth expectations

- Negative relationship between BS and birth expectations ($p < .001$) – unmet expectations related to lower BS

Phase 2: Deductive: do women report PF skills in sense-making of birth? Two Deductive themes:

- Psychological Flexibility (Committed Action, Values, Contact Present Moment, Acceptance, Self-as-Context, Defusion)

Contact Present Moment: "I just wanted to experience it to the full and I managed that and that for me is the best thing about my birth."

- Psychological Rigidity (Inflexible Attention, Fusion, Fusion with Self-Concept, Unworkable Action, Remoteness from Values, Experiential Avoidance)

Experiential Avoidance: "At the beginning I was - I didn't really want to think about it, about the whole experience."

Inductive: what do women report as helping/hindering sense-making? Five Inductive themes:

- Support & Care – Communication, Influence of others, Healthcare, Talking

Communication: "But, no-one actually came over, no-one talk about things... I would love to know why this happened and why the outcome was like this."

- Power

Power: "I think just the fact that I felt in control the whole time and I knew what I was doing, and I was allowed to kind of get on with it and I felt able to say no."

- Personal Processes – Mindset, Attributes, Internal processes

Attributes: "I definitely think there's a personality element to it where, I don't know, just being a bit more relaxed about things like that."

- Preparedness

Preparedness: "The NCT class was really good because the lady there did explain what would happen in a caesarean, how many people would be in the room, what job they would do. So, that wasn't a surprise to me."

- Birth Processes – Labour, Medical challenges

Labour: "My main thing that I have in my head as to why it went the way it did is that it was because her head was at the wrong angle"

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SMALL SCALE RESEARCH PROJECT

Title: Service evaluation of a brief Distress Tolerance skills group intervention

Short title: Coping with Distress; a brief distress tolerance skills group

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Keywords:

Distress Tolerance; Group Intervention

Acknowledgements:

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Abstract

Objectives: This project evaluates a five session Distress Tolerance (DT) skills group intervention, 'Coping with Distress', for individuals on a waiting list for psychological therapy. The objective was that participants would develop DT skills and that this would reduce waiting times for psychological therapy through reducing the number of individual sessions needed.

Methods: The Coping with Distress group was delivered. Outcome measures included the Distress Tolerance Scale (Simons & Gaher, 2005b), the Five-Facet Mindfulness Questionnaire Short-Form (FFMQ-SF; Bohlmeijer, ten Klooster, Fledderus, Veehof, & Baer, 2011), the Recovering Quality of Life-10 (ReQoL-10; Keetharuth et al., 2018) and a Coping Likert-type scale, collected at baseline and post-treatment. The data were analysed using Reliable Change Index (RCI) and Clinically Significant Change (CSC).

Results: Results showed little to no effect on the DTS and only little effect on some facets for some participants on the FFMQ-SF. Results were more promising for coping and the ReQoL-10 with three and four out of five participants showing reliable change, respectively.

Conclusions: The group did not meet its main outcome of increasing DT, therefore the group would not be successful at reducing waiting times. The group was beneficial to participants potentially due to the therapeutic benefits of being part of a group. Recommendations for future research are made.

Introduction

Distress Tolerance (DT) relates to the ability to experience and withstand uncomfortable emotional states (Simons & Gaher, 2005b; Zvolensky, Vujanovic, Bernstein, & Leyro, 2010). Having low DT (distress intolerance; DI) is well-documented as a mechanism involved in a number of psychological disorders, including anxiety (Allan, Macatee, Norr, & Schmidt, 2014; McDermott, Smith, & Cogle, 2019), personality disorders (Bornovalova, Matusiewicz, & Rojas, 2011; Sargeant, Daughters, Curtin, Schuster, & Lejuez, 2011), substance-use disorders (Bornovalova, Gratz, Daughters, Hunt, & Lejuez, 2012) and trauma (Fetzner, Peluso, & Asmundson, 2014).

It is thought that DI contributes to the development and maintenance of these disorders. Research suggests that DI plays a role in engaging in avoidance behaviours that serve to maintain DI in the long-term (MacPherson et al., 2010; Nock & Mendes, 2008). DI is documented to be involved in cognitive strategies of avoidance such as attempting not to think about intrusive thoughts (Allan et al.,

2014; Keough, Riccardi, Timpano, Mitchell, & Schmidt, 2010). Many psychological theories understand that avoidance strategies serve to develop and maintain the problem (E.g. Hayes, Strosahl, & Wilson, 1999; Linehan, 1993; Wells, 1999).

Interventions aimed at building DT should be effective at teaching individuals new strategies that enable them to withstand distress. Dialectical Behavioural Therapy (DBT; Linehan, 1993) has DT as one of its core components of treatment for those with Borderline Personality Disorder (BPD) (Leyro, Zvolensky, & Bernstein, 2010). DBT has been largely researched and shown to have moderate to large effectiveness for treating BPD, however, the quality of research is low and there are concerns about bias in the published studies (Cristea et al., 2017; Stoffers et al., 2012). DBT is a lengthy and resource-intensive treatment specifically for individuals diagnosed with BPD and involves weekly group and individual sessions as well as telephone crisis training lasting around 12 months (Linehan, 2015a). DBT is known as difficult to access with strict criteria and long waiting lists (Carmel, Rose, & Fruzzetti, 2014; National Collaborating Centre for Mental Health, 2009). Individuals who have difficulties with DT but do not quite meet criteria for BPD diagnosis are unable to access DBT. These individuals still present to mental health services with difficulties such as self-harm, depression, anxiety and trauma.

Derbyshire Healthcare NHS Foundation Trust (DHCFT) is commissioned to provide DBT but the criteria for accessing DBT require a BPD diagnosis. Individuals struggling with DT would not be offered DBT but would be offered individual psychological therapy. The waiting time for this (as of Summer 2019) is approximately 18 months and Psychologists in DHCFT report spending a significant number of sessions teaching DT skills. A waiting list initiative was launched within DHCFT's psychology department to reduce waiting time for psychological therapy following recommendations from the Clinical Commissioning Group. Offering a DT-skills group was proposed as a waiting list intervention by a Psychologist in DHCFT and subsequently offered as a small-scale research project to a Trainee Clinical Psychologist (first author) on placement there.

Research shows evidence for the effectiveness in treating psychological disorders with DT interventions (Bloom et al., 2017; Bornovalova et al., 2012; Brown et al., 2008; Denckla, Bailey, Jackson, Tatarakis, & Chen, 2015; Kraemer, Luberto, O'Bryan, Mysinger, & Cotton, 2016; McHugh et al., 2014; Yardley, McCall, Savage, & Newton, 2019). Bornovalova et al. (2012) conducted a randomized controlled trial examining whether a DT intervention increases DT in individuals admitted to a substance-use disorder (SUD) treatment facility. Results showed that individuals receiving a DT intervention significantly improved their DT skills and were more likely to show clinically significant improvement

compared to treatment-as-usual. However, these results cannot be generalized to individuals presenting with other psychological disorders such as trauma or depression. The problem of generalizability is present with many of the studies looking at DT interventions as many are conducted in specific populations such as military veterans (Denckla et al., 2015) and medical students (Kraemer et al., 2016). Additionally, Bornovalova et al.'s (2012) study and McHugh et al.'s (2014) study were conducted in residential settings therefore it is possible that participants scores were influenced by demand characteristics. Yardley et al.'s (2019) study showed effectiveness of a DT intervention for individuals accessing community mental health services with or without a BPD diagnosis. However, the study lacks replicability, as it does not provide details of the intervention such as intensity of intervention, skills taught or number of sessions.

Research suggests that mindfulness training plays an important role in increasing DT (Carpenter, Sanford, & Hofmann, 2019; Gawrysiak et al., 2016; Lotan, Tanay, & Bernstein, 2013). Carpenter et al. (2019) demonstrated that completing a brief mindfulness task increases DT. Moreover, Gawrysiak et al. (2016) showed that individuals with lower DT show greater improvements in perceived stress following a mindfulness intervention. A primary aim of mindfulness is to become accepting of uncomfortable or undesired experiences (Bishop et al., 2004). It is therefore understandable why mindfulness would also support the development of DT. Likewise, DBT incorporates mindfulness training throughout to facilitate skill development (Linehan, 2015a). The previously mentioned DT intervention studies either did not include mindfulness training in the intervention, or did not measure mindfulness. Therefore they cannot conclude whether the effectiveness of their DT intervention was strengthened by the development of mindfulness skills. As such, the current project developed a DT-skills group that incorporated mindfulness training.

Aims

The aim of this project was to provide a DT-skills group, 'Coping with Distress', to individuals on a waiting list for psychological therapy in a community mental health team (CMHT) and who were assessed as having low DT but would not meet criteria for accessing DBT. It was anticipated that providing this group would reduce the number of therapy sessions required (by eliminating the need to do DT work) in turn reducing the waiting list. It was also anticipated that some individuals might find the group was adequate treatment and no longer required individual therapy. Furthermore, a DT-skills group could reduce the need to access other resources including support from a community psychiatric nurse, emergency department attendance due to self-harm and inpatient admission. This would address national drivers to improve cost-effectiveness of the National Health Service (England, 2017). First, this project needed to develop a DT-skills group and evaluate its effectiveness. If the group was found to be effective a

further study would rollout the intervention Trust-wide and evaluate the impact it has on waiting times. Therefore, this evaluation aimed to answer 4 questions:

1. Does attending a brief DT skills group increase ability to tolerate distress?
2. Does attending a brief DT skills group increase mindfulness abilities?
3. Does attending a brief DT skills group increase perceived ability to cope with distress?
4. Does attending a brief DT skills group increase perceived quality of life?

Methods

Participants

Eight individuals under the care of a CMHT who had been assessed by a Clinical Psychologist and placed on a waiting list for psychological therapy were invited to attend the Coping with Distress group. One participant declined and seven participants agreed to attend. Participants were aged between 24-61 ($M = 38.85$, $SD = 13.56$) and consisted of four females and three males, all of whom were of White British ethnicity.

Outcome measures

Distress Tolerance

The Distress Tolerance Scale (DTS; Simons & Gaher, 2005b) was used to measure participants' distress tolerance. The DTS is a 15-item self-report scale that measures the extent to which an individual believes they are able to experience and tolerate distressing emotions. The responder indicates the extent to which they agree or disagree to each statement on a 5-point Likert-type scale (1 = 'strongly agree' to 5 = strongly disagree). The DTS includes perception of their ability to tolerate emotional distress, their subjective perception of the distress, how much they become absorbed by the distress, and efforts to regulate and alleviate the distress. A higher score indicates higher DT. The DTS has been shown to have good reliability (alpha coefficient = .89) as well as good convergent, discriminant and criterion validity (Simons & Gaher, 2005a).

Mindfulness

The Five Facet Mindfulness Questionnaire – Short Form (FFMQ-SF; Bohlmeijer et al., 2011) was used to measure participants' mindfulness abilities. The FFMQ-SF is a 24-item self-report scale that measures five facets of mindfulness; observing, describing, acting with awareness, non-judging and non-reactivity. The responder indicates how frequently they have or have not experienced each statement in the last month on a 5-point Likert-type scale (1 = 'never or very rarely true' to 5 = 'very often or always true'). The FFMQ-SF has been shown to have good reliability with alpha coefficients for the facets ranging from .73 to .91. It has

also been shown to have good convergent and discriminant validity and is highly sensitive to change (Bohlmeijer et al., 2011).

Quality of life

The Recovering Quality of Life-10 (ReQoL-10; Keetharuth et al., 2018) was used to measure quality of life as this aims to evaluate the outcome of an intervention that is not limited to diagnosis (Keetharuth et al., 2018). The ReQoL-10 is a 10-item questionnaire measuring quality of life, required by DHCFT policy. The responder best describes their thoughts, feelings and behaviours on a scale of 0-4 (from 'none of the time' to 'most of the time'). An additional item asks them to describe their physical health on a scale of 0-4 (from 'no problems' to 'very severe problems'). It is shown to have face, content, known-group and convergent validity and Cronbach's alpha was 0.92 (Keetharuth et al., 2018).

Coping

There was no suitable published measure available that measured coping with distress specifically. Published measures were either too broad (E.g. Folkman & Lazarus, 1980) and therefore did not have enough focus on coping with distress, or were related to coping styles (E.g. Carver, 1997; Chesney, Neilands, Chambers, Taylor, & Folkman, 2006). Therefore, a Likert-type scale was developed to measure the participants' confidence in their ability to cope with distress. Participants were asked to rate how much they agreed with three statements about their perceived coping of distress on a 5-point Likert-type scale (1 = Strongly agree, 5 = strongly disagree). The measure can be found in Appendix A.

Procedure

A Clinical Psychologist and a Trainee Clinical Psychologist (first author) examined the waiting list for psychological therapy from a CMHT under DHCFT. Individuals had already been assessed by the Clinical Psychologist or Trainee. Individuals were selected if they had difficulties with DT but did not meet criteria for DBT. Following this the Trainee phoned each individual to invite them to attend the Coping with Distress group, discuss group content and offer opportunity to ask questions. Those who decided to attend received a confirmation letter with the group details.

The group involved weekly two-hour long sessions over five weeks. A five-session group was chosen for a number of reasons. This included the number of sessions used in previous research (Bloom et al., 2017; Bornovalova et al., 2012; Denckla et al., 2015), what would be feasible in terms of time saved (in relation to estimated sessions saved from individual sessions), resources (e.g. room bookings and Psychologist availability) and reviewing number of skills to be taught and estimating how long this would take. The group was developed by the

Trainee under supervision of a Clinical Psychologist trained in DBT. The group was based on DT and mindfulness skills taken from the DBT manual (Linehan, 2015a, 2015b). Table 25 provides an overview of the sessions. The decision to base the group on the DBT manual (Linehan, 2015a, 2015b) skills was taken because DBT has a clear DT module that was easily accessible and previous DT studies have used similar material (Bornovalova et al., 2012; Denckla et al., 2015; Yardley et al., 2019).

Table 25.

Overview of the DBT skills learned in each session.

Session	Skills Learned
Session 1	Mindfulness TIPP (Temperature, Intense exercise, Paced breathing) Skill Wise Mind (middle ground between emotional mind and rational mind) STOP (Stop, Take a step back, Observe, Proceed mindfully) Skill
Session 2	Mindfulness Pros & Cons ACCEPTS (Activities, Contributing, Comparisons, Emotions, Pushing away, Thoughts, Sensations) Skill
Session 3	Mindfulness Self Soothe IMPROVE (Imagery, Meaning, Prayer, Relaxation, One thing in the moment, Vacation, Encouragement) Skill
Session 4	Mindfulness Radical Acceptance Turning the Mind (towards acceptance) Half Smiling & Willing Hands (sensory body awareness) Willingness (to accept difficult situations, emotions, thoughts, feelings)
Session 5	Mindfulness Mindfulness of Current Thoughts Maintaining Progress

Participants were asked to complete the questionnaires at the beginning of the first session and at the end of the final session. One participant who did not attend the first session completed the baseline assessments at the beginning of the second session.

Analysis

Due to the small sample size of participants who completed the group (n = 5) an inferential statistical analysis such as a paired t-test would not have statistical power large enough to be confident that results were not due to chance (Cohen, 1988). Therefore Reliable Change Index (RCI) and Clinically Significant Change (CSC; Jacobson & Truax, 1991) was calculated to analyse individual scores on

the outcome measures for each participant. A review found Jacobson and Truax's (1991) approach is the most useful for calculating RCI and CSC (Atkins, Bedics, McGlinchey, & Beauchaine, 2005). A pre-programmed Microsoft Excel workbook was used to calculate RCI. CSC was defined as ≥ 2 SDs above the starting mean of the group (Jacobson & Truax, 1991).

Results

Group attendance

An average of 3.7 sessions were attended (SD = 1.3). Of the seven participants who agreed to attend the group five completed (71.5%) and two (28.5%) discontinued (one due to finding group format challenging and the other due to moving away from the area). Table 26 illustrates the attendance record of each participant.

Table 26.
Participant attendance and drop out record

	Session 1	Session 2	Session 3	Session 4	Session 5	Completed
Devon*	✓	✓	✓	✓	✓	✓
Paris*	✓	✓	✓	✓	✓	✓
Dakota*	×	✓	✓	×	✓	✓
Florence*	✓	✓	✓	Cancelled	✓	✓
Phoenix*	✓	✓	✓	✓	✓	✓
Brooklyn*	✓	✓	Dropped out	N/A	N/A	×
Shannon*	✓	✓	×	Dropped out	N/A	×
Overall attendance	6/7	7/7	5/7	3/7	5/7	5/7

Note. *Pseudonyms are used to ensure confidentiality.

Distress tolerance

The participants overall DTS score is reported (Table 27), as norms for the individual second-order factors were not available. A higher score indicates higher perceived DT ability.

Table 27.

DTS score

	Pre DTS	Post DTS	Reliable Change Index
Devon	3.5	3.71	0.45
Paris	1.33	2.09	1.61
Dakota	1.54	1.25	-0.62
Florence	1.13	1.88	1.6
Phoenix	2.13	2	-0.28

For the DTS, none of the participant's scores showed reliable change (RC). CSC was defined as ≥ 3.63 ($\geq 2SDs$ above the starting mean ($M=1.93$, $SD=0.86$) of the group and is contingent on RC (Jacobson & Truax, 1991). Therefore, none of the participants showed CSC.

Mindfulness

The participant's scores on each mindfulness facet (Non-Reactivity, Observing, Acting with Awareness, Describing and Non-Judging) are reported (Table 28), as norms for an overall mindfulness score were not available. A higher score indicates higher perceived abilities on that facet.

Table 28.

FFMQ-SF scores

	Pre FFMQ-SF	Post FFMQ-SF	Reliable Change Index
Devon	NR=18	NR=20	NR=0.92
	OB=8	OB=13	OB=2.51*
	AA=15	AA=19	AA=2.08*
	DS=22	DS=18	DS=-2.01
	NJ=17	NJ=21	NJ=1.90
Paris	NR=10	NR=15	NR=2.29*
	OB=7	OB=11	OB=2.01*
	AA=13	AA=16	AA=1.56
	DS=11	DS=9	DS=-1.01
	NJ=18	NJ=14	NJ=-1.90
Dakota	NR=5	NR=5	NR=0
	OB=14	OB=13	OB=-0.50
	AA=12	AA=5	AA=-3.65
	DS=15	DS=16	DS=0.50
	NJ=18	NJ=9	NJ=-4.27
Florence	NR=10	NR=15	NR=2.29
	OB=9	OB=12	OB=1.51
	AA=12	AA=15	AA=1.56
	DS=11	DS=13	DS=1.01
	NJ=12	NJ=11	NJ=-0.47
Phoenix	NR=13	NR=11	NR=-0.92
	OB=16	OB=14	OB=-1.01
	AA=8	AA=12	AA=2.08*
	DS=12	DS=14	DS=1.01
	NJ=20	NJ=11	NJ=-4.27

Note.

NR = Non-Reactivity, OB = Observing, AA = Acting Aware, DS = Describing, NJ = Non-Judging.

* reliable change

For the FFMQ-SF, scores on the Non-Reacting facet showed RC for Paris but no other participants. Scores on the Observe facet showed RC for Devon and Paris but no other participants. Scores on the facet Acting Aware showed RC for Devon and Phoenix but no other participants. No other facets showed RC for any participants. Scores that showed RC were analysed to see if they also showed CSC. For the Non-Reactivity facet CSC was defined as ≥ 19.72 (≥ 2 SDs above the starting mean ($M=11.2$, $SD=4.26$) of the group (Jacobson & Truax, 1991). Therefore, Paris's score of 15 did not show CSC. For the Observe facet CSC was defined as ≥ 17.8 (≥ 2 SDs above the starting mean ($M=10.8$, $SD=3.54$) of the group. Therefore, Devon's score of 13 and Paris's score of 11 did not show CSC. For the Act Aware facet CSC was defined as ≥ 16.56 (≥ 2 SDs above the starting mean ($M=12$, $SD=2.28$) of the group. Therefore, Devon's score of 19 showed CSC. Phoenix's score of 12 did not show CSC.

Quality of life

Table 29.

ReQoL scores

	Pre ReQoL	Post ReQoL
Devon	14 (4)	26 (4)*
Paris	6 (3)	17 (3)*
Dakota	7 (4)	9 (4)
Florence	9 (2)	22 (3)*
Phoenix	9 (0)	11 (3)

Note.

*reliable change

For the ReQoL, RC is defined as an improvement of ≥ 5 points from baseline score and CSC is defined as scoring ≥ 24 (Keetharuth et al., 2018). Three out of five participants met RC; Devon, Paris and Florence. Only Devon showed CSC with a post-treatment score of 26.

Coping

Table 30.

Coping Likert-type scale scores.

	Pre Coping	Post Coping
Devon	10	5*
Paris	11	7*
Dakota	15	15
Florence	11	8*
Phoenix	15	9*

Note.

*reliable change

For the Coping measure CSC was considered met if the participant scored $\geq 2SDs$ ($SD=2.15$) below the starting mean (12.4) of the group (Jacobson & Truax, 1991). Therefore a participant would need a score of 8.1 or below for their change in score to be clinically significant. Devon, Paris and Florence all met CSC with post-treatment scores of 5, 7 and 8, respectively.

Discussion

This project aimed to answer four questions: (1) Does attending a brief DT skills group increase ability to tolerate distress? (2) Does attending a brief DT skills groups increase mindfulness abilities? (3) Does attending a brief DT skills group increase perceived ability to cope with distress? (4) does attending a brief DT skills group increase quality of life? Overall the findings of this project indicate

that the Coping with Distress group was not an effective intervention. None of the participants showed RC or CSC in DT. Three participants showed improvements in some but not all of the mindfulness facets. Four participants showed improvements in coping and three participants showed improvements in quality of life. The results were varied and the reasons for this are discussed.

Distress tolerance

Previous research suggests that delivering a DT skills group can be effective at increasing DT in those with psychological disorders (Bloom et al., 2017; Bornovalova et al., 2012; Brown et al., 2008; Denckla et al., 2015; Kraemer et al., 2016; McHugh et al., 2014; Yardley et al., 2019). The present project's findings did not support this as none of the participants showed RC for DT. One of the reasons for this could be due to the sample. This project selected individuals on a waiting list for psychological therapy, who had low DT skills and did not meet criteria for BPD diagnosis. Those who attended the group had all experienced trauma. Research has found an association between DT and posttraumatic stress (PTS) severity, in that individuals with more severe PTS have lower DT and vice versa (Fetzner et al., 2014; Zvolensky et al., 2010). PTS symptoms are categorized into four clusters; re-experiencing, hyperarousal, avoidance and negative affect on mood and cognitions (American Psychiatric Association, 2013). Fetzner et al. (2014) found that DT accounted for the variance in symptoms relating to re-experiencing and avoidance but not for negative effect of mood and cognitions or hyperarousal. It is possible that participants engaged in avoidance of distress due to PTS and this limited their opportunities to practice DT skills. Fetzner et al. (2014) also found that time since trauma was negatively associated with re-experiencing. The participants in the present project all experienced trauma in early life. Over time they may have developed a habit of avoiding distress caused by trauma and although this is unsuccessful (as they were still experiencing distress) it meant they engaged in avoidance rather than using DT skills. DT interventions specifically for those with PTS may be more successful if combined with behavioural exposure to encourage the use of DT skills.

Mindfulness

The present project incorporated mindfulness training into the group as previous research suggests that mindfulness increases DT (Carpenter et al., 2019; Gawrysiak et al., 2016; Lotan et al., 2013). The FFMQ-SF (Bohlmeijer et al., 2011) was used to measure mindfulness abilities and results showed that the facets Non-reactivity, Observing and Acting Aware were significantly increased in some but not all participants. These results should be interpreted with caution because there was only a maximum of two participants on any one facet that showed RC. Furthermore only Acting Aware showed RC and CSC and this was for only one participant; Devon. Two facets showed no improvements; Describing and Non-Judging. Describing relates to ability to describe your thoughts and

feelings and Non-Judging relates ability to let your thoughts and feelings come and go without negative judgment. Participants in the group would have avoided describing their thoughts and feelings and viewed them negatively because they had difficulties in tolerating their distress. The facets Observe and Acting Aware are more related to being aware of distressing thoughts and feelings (Observe) and being present-focused (Acting Aware). The remaining facet (Non-Reacting) relates to not reacting to thoughts and feelings but it only improved in one participant (Paris) and it did not show CSC.

The group showed improvements in some mindfulness facets for some participants but not improvements in DT and this might be explained by the nature of mindfulness skills compared to DT skills. Mindfulness can be practiced at any moment (Baer, 2003) whereas DT skills are practiced during moments of distress (Linehan, 2015a). It is possible that participants did not get ample opportunity to practice DT skills, for example, if they had not been distressed that week. It might have been useful to measure frequency of distress in participants between each session. Results could then have looked at the relationship between frequency of distress and DT skill development over the time of the group.

Brief interventions for mindfulness have been shown to be as effective as longer interventions (Carmody & Baer, 2009). There is a lack of research into the dosage of DT interventions, however, we know that in DBT the DT module lasts for 6 sessions and is repeated (Linehan, 2015a). This repetition means that attendees are given opportunity to practice DT skills when distress arises, which may not be essential for mindfulness as it can be practiced in any moment. Mindfulness dosage is still unclear as the more you practice the more improvement you will have in mindfulness skills (Creswell, 2017). This is relevant for the present project because mindfulness was practiced and set as homework at every session. The total time spent practicing mindfulness may have been significantly more than time spent practicing DT skills for the participants in the present group. If DT does require more time to practice the skills then it would have been useful for the present project to collect follow-up data in terms of proportion of sessions and homework devoted to mindfulness vs DT. Follow-up data collection might have shown improvements in DT skills, as participants would have had more opportunity to practice them. Unfortunately, due to the time restrictions of the waiting list initiative set by DHCFT it was not possible to do this.

Coping

The present project aimed to increase perceived ability to cope with distress. The results showed that RC in coping was seen for four out of five participants attending the DT skills group and CSC was seen for three of these participants. It is possible that the Likert-type questionnaire used to measure coping was not psychometrically sound. The measure was developed by the first author in absence of a suitable published measure and therefore has not been validated.

The four participants who showed RC attended more sessions (three attended five and one attended four sessions) than the participant who did not show improvement (three sessions attended). It is possible that attending the Coping with Distress group led the participants to feel more able to cope because they learned more DT-skills that they could draw upon at times of distress. However, the present project did not analyse a relationship between attendance and improvements on outcomes and therefore cannot make accurate comments on whether higher attendance led to higher perceived ability to cope with distress.

Quality of life

Quality of life showed RC in three (Devon, Paris and Florence) out of five participants and CSC in one (Devon). It is worthwhile considering why a DT-skills intervention would improve quality of life but not DT. One reason for this could be that participants benefitted from being part of a group. The ReQoL aims to measure quality of life in people with mental health disorders (Keetharuth et al., 2018). ReQoL's item development is based on qualitative literature asking people with mental health disorders what they believe contributes to good quality of life (Connell, O'Cathain, & Brazier, 2014; Leamy, Bird, Le Boutillier, Williams, & Slade, 2011). One of these frameworks outlines the aspects of quality of life as Connectedness, Hope, Identity, Meaning and Empowerment (CHIME; Leamy et al., 2011). These aspects are similar to and relate to the eleven key therapeutic principles of group therapy outlined by Yalom (1970). For example, Connectedness and Identity relate to Yalom's (1970) principle Universality, which involves recognizing you are not unique in your distress but that others have similar experiences to yours. Meaning and Empowerment relates to Yalom's (1970) principle Altruism as this involves giving something to others and having a purpose, such as when participants share experiences and support one another in the group. Finally, Yalom's (1970) principle Instillation of Hope relates to the Hope aspect as they both involve feeling encouraged for the future, gained through seeing other group members succeed. These therapeutic principles are known to be unique to group therapy and not obtainable in individual therapy (Holmes & Kivlighan, 2000).

Implications

This service evaluation was conducted as part of a waiting list initiative to reduce waiting time for psychological therapy through reducing the number of individual sessions needed or diminishing the need for further therapy. If Coping with Distress was effective and feasible then the group would be rolled out and a further project would be carried out to evaluate the impact it has on waiting times.

It is important to consider resource implications and potential economies of this group vs individual work on the same processes. The group ran for two hours per week over five weeks and required two therapists present during sessions (a total

of 20 hours of therapists' time). A total of 5 hours of admin time was required to run the group. Therefore the group required a total of 25 hours of therapists' time to deliver. Psychologists in DHCFT claimed to spend between four and six sessions (average 5 hours) on DT skills with individuals who required this and around 0.5 hours per individual on admin. Applying this time to five individuals (as this is how many completed the group) would equate to a total of 27.5 hours of therapists' time. Delivering this group saves 0.5 hours of therapists' time per individual. If the group was successful at increasing DT this could be a worthwhile saving when also considering the therapeutic benefits gained through the group process. However, as this was not an effective intervention it is also not an effective or feasible waiting list initiative. Nevertheless, we do not know how effective individual therapy is for increasing DT and further research is needed to evaluate this considering that Psychologists in DCHFT are spending a significant amount of time delivering DT interventions.

Groups are thought of as a quick and easy way to manage waiting lists (Ruesch, Helmes, & Bengel, 2017; Stone & Klein, 1999; Victor, Teismann, & Willutzki, 2016). Research into effectiveness of using groups as waiting list initiatives is limited, yet anecdotal evidence implies groups are often used in this way. This project demonstrated that delivering groups in a CMHT as a waiting list initiative should be approached with care. In order for an intervention to be effective at reducing waiting times it also needs to be an effective intervention and needs to be effective long term to ensure the waiting list remains reduced. Groups offer beneficial therapeutic effects for individuals such as feelings of belongingness, identity and hope and these are not to be undervalued. However, they cannot replace clinical gains of individual therapy and this is paramount in managing waiting times. Future research may benefit from looking at cost-effective ways of offering both individual and group therapy to maximize therapeutic benefits for individuals, for example providing groups alongside individual therapy or drop-in group sessions.

Limitations

This project has provided some useful insight into the effectiveness of DT-skills groups, particularly as a waiting list initiative. However, there are a number of limitations that need to be taken into consideration. Firstly, the group had a small sample size and although statistical analyses were chosen specifically for this reason generalisations cannot be made based on the results of this group. This is important to consider when a more substantial analysis of its effectiveness on waiting times depended on the success of one group. Analysing more than one group involving a big enough sample size might have shown more promising results and warranted the roll-out of this group.

Secondly, the lack of follow up data meant that long-term effectiveness on DT could not be determined. As previously discussed, it is possible that the

participants had limited opportunities to practice DT skills and as such did not improve their DT within the time the group ran. Follow up data would address this concern and provide insight into whether DT skills are developed over time and practice. However, it is worth noting that high non-attendance rates of this type of group may mean that completion of a follow-up outcome measures would be low. It would be useful for future research to look at ways of maximizing attendance to groups in community settings through increasing take up and retaining participants.

Recommendations

Based on the results the author recommends that DHCFT does not roll-out the Coping with Distress group as a waiting list initiative. DHCFT might, however, want to consider offering and evaluating a psychologically informed group as part of their psychology service. The participants involved in this group did benefit from increased quality of life following attending this group. This is thought to relate to the therapeutic benefits of groups such as belongingness, hope and identity (Leamy et al., 2011). However, this hypothesis is not supported by conclusive evidence and therefore future research exploring therapeutic benefits of therapy groups and their relationship to quality of life would be an interesting next step in research.

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Appendices

Appendix A: Coping Likert-type Scale

Please circle the box that best describes how much you agree with the following statements

I know what to do to manage my distress when I am in an emotional crisis.

Strongly Agree
1 2 3 4 Strongly Disagree
5

I have the skills needed in order to manage my distress when I am in emotional crisis.

Strongly Agree
1 2 3 4 Strongly Disagree
5

I feel confident that I can use my skills and knowledge to manage my distress when I am in an emotional crisis.

Strongly Agree
1 2 3 4 Strongly Disagree
5