

Moving through motherhood:
Co-designing dance for maternal wellbeing

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DEDICATION

To all the mothers I have danced with.

To the Sling Beat mothers and their babies, who started me on this journey.

To the mothers from Stepping Out with My Baby, with whom I shared so many moments of joy.

Finally, to the mothers who so generously shared their time and experiences for the co-design that informs this thesis.

It has been a privilege to be alongside you all as you move through motherhood.

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ABSTRACT

This thesis contributes to the growing body of evidence discussing the use of participatory arts to contribute to health and wellbeing outcomes. The original research contained in this work discusses the use of arts-based interventions with a maternal population and seeks to understand how dance and movement might be used with first time mothers in the postnatal period, with the overarching research question being 'What contribution might dance make to enhancing maternal wellbeing?'.

The research employed an iterative mixed methods approach, incorporating (i) a systematic review and meta synthesis exploring the evidence base for arts-based interventions across the perinatal period; (ii) a qualitative study utilising co-design, in which a group of first time mothers took part in focus groups and practical dance workshops; (iii) and a thematic analysis of the qualitative data from this process.

It was found that there is a lack of peer-reviewed research into the impact of arts-based interventions for a maternal population. Whilst the published research is of varying degrees of methodological rigour and reporting of data, some common themes around the social, psychological, and emotional benefits were identified using meta-synthesis. Thematic analysis from the co-design study highlighted three key challenges to wellbeing in the maternal period: searching for calm; motherhood threatens wellbeing; and baby takes over. Participants reported that engaging in a dance-based intervention in the postnatal period provided: an inner energy; a physical vocabulary; a means of conquering baby brain and forming sisterhood beyond baby. Finally, a blueprint for an online dance-based intervention to improve wellbeing

in the postnatal period was created, featuring a suite of resources including online dance sessions, reflective journaling, peer support, and self-directed movement resources.

PROLOGUE

Allow me to introduce myself. My name is Emily-Rose Cluderay. I was born on 14 January 1986 in an English town called Stoke-on-Trent. When I was four, my parents moved to rural North Yorkshire. At the time, I was attending ballroom dance classes and the teacher took my mother to one side and said, “Whatever happens, you must make sure she continues to dance”. I have danced ever since. Throughout school, in ballet class, at college, and at university. Not because my mother made me, but because at times it was the only thing that made any sense.

I am a practitioner-researcher. I say it that way because that’s the way I have evolved: the practice comes first, and the research comes second. For 20 years, I have taught dance to people young and old. In schools, church halls, dance studios and converted garages. We have danced on West End stages, in school canteens, supermarkets, town centres and open fields. From ballet to ballroom, jazz to jive, contemporary to classical and everything in between.

Dancing brings people alive. It brings me alive. To anyone that tells me “But I can’t dance”, I say, “If you have successfully managed to put one foot in front of the other or have ever tapped your hand or your foot to a beat, then you can dance.” To dance is to express oneself freely through one’s body. We are all different and therefore we all have a different dance inside of us, but it is there.

Every class, every dance, every dancer is unique. We all bring all stories and our experience to each session. In my sessions, you come as you are. Come wearing glitter, sequins, or sweatpants. If you are a mother, come in your pyjamas, with baby sick on your shoulders and your eyes bleary from two hours sleep. You are welcome and I will hold this space for you, as you need it.

In 2013, I started applying these principles to a community dance class for mothers. Sling Beat started in a crowded room with 15 mothers and babies, bumping into each other as they try to remember which foot to put forward. Three years later, A small research study followed: eight mothers joined me on an exploration of the impact of babywearing dance on maternal wellbeing. We laughed, we danced, we cried. They shared their stories of how dance helped

them to understand and find meaning in motherhood, to learn to love their changed body, and to experience “moments of joy”. At the end, I wasn’t ready to close the chapter because I saw that mothers’ lives can be enhanced through dance.

This is not just a thesis of circa. 50,000 words, this is the culmination of 36 years of making sense of the world and finding joy through dance. This thesis is written in line with traditional academic conventions and therefore, whilst my first-person voice may be absent from some of the chapters that follow, I hope this prologue helps you to consider all that I bring to the research and what may go unwritten because it is so deeply embodied in my view of the world that it feels too obvious to say.

In my classes, everything is an invitation. I invite you to read this thesis with an open heart and an open mind. I invite you to explore my research as it evolves, to question my questions and judge my judgements. This has been a tremendous journey and I invite you to journey awhile with me.

To prepare you before you start this journey, I extend one final invitation: Stand up. Shake yourself off. If you can, find a piece of music that makes you come alive and dance like nobody is watching.

CHAPTER ONE

Introduction

Overview

This chapter sets the scene for the research study by introducing the main research question, aims, and objectives. It then goes on to provide an overview of the thesis as a whole and explains how to access the additional creative component. The chapter concludes by offering signposting to potential readers, including introducing the practitioner voice that is interspersed throughout the thesis.

Maternal wellbeing has been on the world public health agenda for the last decade. One in ten women experience mental ill health during pregnancy and after birth, with many undiagnosed due to the symptoms like fatigue also being associated with motherhood itself (WHO 2008, p.2). Pregnancy, childbirth, and the postpartum period represent a period of intense emotional, physical, and psychological change for women. Perinatal mental health problems including depression and anxiety affect up to one fifth of all women, with maternal ill health known to impact upon child development and long-term psychosocial outcomes. Therefore, in recent years, there has been greater focus on supporting the health of new mothers, with a number of different public health initiatives emerging to support families across the perinatal period. Arts and health interventions have been shown to enhance the wellbeing of individuals and communities by reducing GP and hospital attendance and offering individuals a way to manage their physical, psychological, emotional, and mental wellbeing. Arts and health programmes also offer a positive social return on investment and provide health care commissioners with lower cost alternatives to clinical models of care. Therefore, supporting mothers to maintain good physical and mental health is a key public health concern because of the long term social and economic implications for them and their children.

This thesis aims to contribute to the existing research on the effectiveness of arts-based interventions on maternal health and wellbeing. Whilst there is a growing evidence base for arts and health interventions (Ings, Crane and Cameron 2012; Stickley 2012), as well as a

developing evidence base around interventions for maternal wellbeing in other modalities, there is limited empirical research investigating the impact of a dance-based approach with a maternal population (see the following two chapters for a fuller discussion of this literature).

Aims, objectives, and research overview

An iterative mixed methods approach has been adopted, incorporating a systematic review of the literature, participatory arts practice, and qualitative research methods. The work is underpinned by a pragmatist theoretical framework. In order to investigate the importance of dance-based interventions and the impact they have upon maternal wellbeing, this work set out to achieve two main outcomes; (i) to review what arts-based interventions exist using systematic and robust processes, and (ii) to work with first time mothers to understand, design, create, and evaluate a blueprint for a dance-based intervention using co-design and other scientific methodologies.

Research Question

The overarching research question for this study was:

What contribution might dance make to enhancing maternal wellbeing?

Aims and objectives

Aims

1. Identify the current evidence base for dance-based wellbeing interventions with maternal populations;
2.
 - a) Co-design a dance-based intervention for use with new mothers;
 - b) Identify the component features of creative dance that contribute to enhanced maternal outcomes;
3. Investigate the impact of a dance-based intervention on maternal physical, social/emotional and cognitive outcomes.

Objectives

1. Conduct a systematic review of the literature to identify the use of dance and participatory arts to enhance maternal physical, social/emotional and cognitive outcomes;
2. Co-design and deliver a dance-based intervention with mothers in the postnatal period;
3. Evaluate the impact of a dance-based intervention on maternal physical, social/emotional and cognitive outcomes;
4. Present a practical case study that demonstrates a replicable model of working creatively with mothers in the perinatal period to impact upon and enhance wellbeing.

Research Overview

The research had three main aims, with each aim forming the basis for an individual study within the research as a whole. Firstly, to identify the current evidence base for dance-based wellbeing interventions with maternal populations. Secondly, to co-design a dance-based intervention for use with new mothers, identifying the component features of creative dance that contribute to enhanced maternal outcomes; and finally, to investigate the impact of a dance-based intervention on physical, social, emotional and cognitive outcomes of maternal wellbeing.

To meet the first aim, it was proposed that a systematic review of the literature would be conducted in order to identify the evidence base around the use of dance and participatory arts to enhance maternal physical, social, emotional and cognitive outcomes of maternal wellbeing. The objective of this was to provide a comprehensive picture of the ways in which arts-based practices were already being used; some of the outcomes that had been identified; and the way in which outcomes were being measured, evaluated and documented.

The second key aim of the research was to co-design a dance-based intervention with a group of first time mothers, incorporating a combination of routine-based dance exercises, learning a variety of dance styles, and open-ended improvisation and choreographic tasks. During the co-design process, mothers would be invited to reflect on their experience and evaluate the impact of the intervention on their maternal wellbeing. This was analysed using thematic analysis with the aim being to identify some of the constituent features of either dance or the

intervention that might contribute to maternal wellbeing outcomes. Finally, the intervention that was designed could then be presented as a case study that demonstrated a replicable model of working creatively with mothers in the perinatal period to impact upon and enhance wellbeing.

Initially, a systematic review was carried out that asked “What is the evidence base for arts-based interventions within a maternal population?” The review identified a total of eight studies, with varying degrees of quality and methodological rigour. Meta-analysis of the findings from these papers identified that the impact of interventions for maternal wellbeing could be classified in three categories of benefits: psychological (*skills for motherhood; overcoming challenges/aiding transition; bond with baby*); social (*community/peer support; time out for mothers*) and emotional (*fun and enjoyment; relaxation and calm; relief from worries*). The key findings from the review were: (i) there was a limited number of studies in this area; (ii) no studies were identified using dance with a maternal population, with another key finding being a lack of user involvement in the development of interventions. These findings from the systematic review informed the next stage of the research: the development of a dance-based intervention designed alongside a group of mothers.

The co-design phase of the research, informed by participatory action research methodology, engaged a group of mothers in focus groups and practical dance workshops. The participants were primiparous adult women aged between 24 and 44, who volunteered for the study following a recruitment campaign on social media. The focus groups introduced women to wellbeing theory, explored the women’s views and experiences of maternal wellbeing, and sought their feedback on different aspects of the intervention based upon their experience of the practical workshops. The workshops, held over a two week period via Zoom, introduced the participants to different ways in which dance might be used to impact upon wellbeing. Workshop and intervention content evolved over the course of the study in response to the conversations between researcher and participants, with the content including different genres of dance (line dancing, salsa, and musical theatre); mindful stretching and body release; and a pilot resource created for the intervention: Daily Dances. Following completion of the co-design workshops and focus groups, data from the focus groups was analysed using

thematic analysis and these findings were used to inform the creation of a dance-based intervention.

The thematic analysis identified four arching themes: (i) The reality of maternal wellbeing, in which the mothers discussed the tension between the ideals of motherhood and wellbeing versus the challenges and realities across three sub themes: *searching for calm*, *motherhood threatens wellbeing* and *baby takes over*. (ii) The impact of dance, in which women identified how the experience of dancing awakened *an inner energy* and gave them *a physical vocabulary* that they could use as a tool for wellbeing. (iii) The impact of the intervention, in which three sub themes *sisterhood*, *beyond baby*, and *conquering baby brain* capture the benefits of taking part in the workshops and focus groups during the co-design process. (iv) Designing dance for maternal wellbeing, in which a series of ideal components and guiding principles were discussed that should form part of the final intervention: *maximising movement*, *tailored teaching*, and *embedded reflection*.

A key finding from the co-design was the need for an intervention that had multiple points of access for mothers. The proposed intervention would be offered to first time mothers over a six week period and would consist of weekly online dance sessions, with an additional peer support reflection session in between practical workshops. Supporting the programme is a suite of resources including a *programme guide* with space for mothers to reflect upon their wellbeing and track their thoughts and progress; *Daily Dance* postcards that serve as movement reminders for mothers to incorporate into their daily routine; and “on demand” *videos* and *podcasts* that guide mothers through simple movement exercises and offer an opportunity to revisit content from the live workshops.

The research identified a lack of evidence around the impact of arts-based interventions on maternal wellbeing, with a particular lack of evidence for interventions offering dance to a maternal population. This study is the first of its kind to systematically identify the benefits of arts-based approaches to maternal wellbeing and to co-design a dance-based intervention that meets the needs of mothers. There is a benefit to designing interventions using co-design methods, because of the insights gained into participants’ realities and experiences and because practicalities can be fully considered so that the final intervention is utilised by the intended beneficiaries. The research draws the following conclusions: (i) there is a need for

dance-based interventions given their potential to facilitate and improve the wellbeing of new mothers psychologically and physically; (ii) interventions should be comprehensively designed with the end user in mind, preferably with active participant involvement in the development; (iii) dance-based interventions such as this offer a cost effective, scalable and accessible way for health care professionals and women to refer into. Whilst this research has proposed a potential intervention model offering dance to a maternal population, further research is required to test this using validated scales of measure.

Thesis chapters

The chapter order follows the iterative process of the research. Chapter Two presents a general literature review that examines the broad evidence base for arts and wellbeing, dance and health, and maternal wellbeing. The chapter also begins to identify the gap in the existing discourse and the contribution that this thesis makes to furthering knowledge and understanding. Chapter Three sets out the theoretical framework for the research, discussing the philosophical and theoretical underpinnings and briefly outlining the methods that were utilised for the empirical studies. It discusses how a pragmatic philosophical approach was applied to the research, in which the focus is on applying practical methods to solve real world problems. Links are drawn between this and the process of co-design, where the aim is to understand lived experience and apply these understandings to the creation of services or resources. This is underpinned by a social constructionist epistemology, where knowledge is understood to be created as part of a collaborative process between individuals, acting within a particular culture or society.

Continuing the mapping of the existing literature in Chapter Two, Chapter Four further adds to the context for the field of study by presenting the first empirical study of the study: a systematic review of arts-based interventions for maternal wellbeing. The systematic review expands upon the literature review and delves deeper into the impact of arts-based interventions on maternal wellbeing outcomes. A meta synthesis of results from the included studies identifies a series of themes related to the psychological, social, and emotional benefits of these interventions within a maternal population.

The second half of the thesis describes and presents the results from the second empirical study: a co-design process that engaged a group of first time mothers in practical dance workshops and discussions that explored the impact of dance on their wellbeing. Chapter Five contains the description of the main co-design intervention, including study design, procedure, methods, and data analysis. The results are then separated into two distinct chapters: Chapter Six presents a thematic analysis of the data collected during the focus groups, with each of the four themes discussed in turn; Chapter Seven then presents the final intervention design and ties links between the results of the thematic analysis and findings from the co-design workshops, with each component of the intervention discussed in turn. The discussion in this chapter also draws upon the experience of the mothers within the co-design group and demonstrates how their contributions directly informed the creation and content of the resources.

[Creative component](#)

Supporting this thesis is a creative component that contains sample resources for the proposed intervention, the creation of which was informed by the systematic review, thematic analysis and co-design. The creative component is presented on the Padlet platform.

This resource bank was created following the co-design process and so it is suggested that the reader considers accessing this at the end of reading Chapter Six. A description of how the resources were developed and their proposed use then follows in Chapter Seven.

[Reading this thesis](#)

It is my great hope that this thesis will be a source of knowledge and inspiration to academics and practitioners alike. If you are an arts student interested in the intersection of arts and health, then turn to Chapter Two, where you will find a summary of some of the relevant literature; you may also find the discussion of the intervention and how it was designed of relevance (see Chapters Five and Seven). If you are a practitioner or academic working with women in the perinatal period, I invite you to consider the systematic review in Chapter Three, followed by the voices of the women, as highlighted in the thematic analysis in Chapter Six. If you are an arts practitioner looking to develop your practice, you might like to spend some time considering the intervention blueprint in Chapter Seven and flicking through the

practitioner insights throughout the chapters (see below). My desire from day one of this research journey has been that the resulting thesis should never be a dusty book on a shelf. Whoever you may be, I hope you breathe life into this work by printing off the pages, scribbling in the margins and highlighting the passages that speak to you.

The voice of the practitioner

I was a dancer, a teacher and a community practitioner before I was a researcher and academic. Initially, I was put off research and academia, because I saw it as stuffy and boring, far removed from “the real world” of the spaces I shared with my pupils and participants. I even argued, “but we don’t need to know why it works, as long as it works!” Until one day I carried out an experiment whereby I started a reflective practice journal. I recorded the smallest of things: the atmosphere in the room; what the weather was like that day; who said what; how I felt; what thoughts were running through my head; and why certain things might turn out the way they did. Then, something magical happened: I realised that if I thought about the mechanisms of my practice, I could do even more of what worked and amp up the impact tenfold.

It took me over fifteen years to develop my practice and deepen my understanding of how and why I do the things that I do in the way that I do – and I’m still learning. This understanding is often subsumed into my practice, simmering below the surface. So, as a way of further clarifying the practical and theoretical underpinnings of this research and bringing my unspoken thought processes into the light, I offer ‘practitioner insights’ throughout the body of the work. These appear at various points where I would like to offer some explanation or unpicking, contained within text boxes, so as to be distinguishable from the main body of text. Some of these are extracts from the research journal I began at the start of the process, whereas others are reflections on the process as a whole.

CHAPTER TWO

Literature Review

Chapter Introduction

This chapter provides an overview of the literature and offers a general overview of the landscape for arts-based interventions, framed by the principles of community dance practice. The chapter begins with a brief and broad introduction to arts-based interventions for health and wellbeing amongst different populations and highlights some of the weaknesses in the current literature. Whilst it is acknowledged that arts in health practices are not a new phenomenon, it is not within the scope of this chapter to examine the development of arts and health historically. The chapter moves on to look at the literature which explores the manifold health benefits of dance, discussing how dance and movement practice is used for varying gain within a variety of populations. In the second half of the chapter, the focus narrows to look more specifically at the evidence base for interventions designed to improve maternal health. Finally, the empirical literature is reported about some of the limited studies of dance and movement practice within maternal populations. Therefore, this literature review provides a general overview of the topic of this thesis, it identifies that research studies are scarce concerning dance-based interventions for maternal wellbeing, and a rationale is given to underpin the need for reviewing this systematically in Chapter Four.

Community dance practice

At its core, this research is informed by a participatory, community dance practice approach. It can be difficult to settle on a single definition of what community dance is or is not, given the range of different settings in which community dance happens, and the significant diversity of practice amongst practitioners (Amans 2017). However, there are values and principles upon which community dance is based, central of which being that dance is for all: that anyone and everyone can dance, regardless of ability (Houston 2005; Nakajima 2011). Other principles that are fundamental in community dance are valuing process-over-product; experiential, person-centre approaches to learning and facilitation; and collaborative and inclusive practice (see Amans 2017; Houston 2005; Kupperts 2007).

In the United Kingdom, dance practitioners such as Diane Amans, Miranda Tufnell and Cecilia Macfarlane have been working within the field of community arts and health since the 1980's, carving a path and paving the way more recently for statutory services, such as Arts on Prescription and independent organisations like the nationwide *Dance for Parkinson's* initiative. Community dance groups and practitioners provide safe and understanding spaces for individuals with enduring or chronic illness, or episodes of ill-health, to engage in a range of creative activities.

Community dance practitioners in the UK are supported by the nationwide development organisation *People Dancing* (formerly the Foundation for Community Dance), which supports practitioners and researchers working across a range of participatory and community settings. In a 21st century online manifesto for the benefits of community dance, Sue Smith, Chair of People Dancing, proposes the ways in which dance can “keep us alive”: dance as community; democracy; care; resistance; humanity; lifesaver; and finally, dance “just as dance”. She describes how dance can offer “a sense of ownership and control”, with choreography giving individuals choices and ways to negotiate consent when they consider how they move, when they move, and whom they move with (Smith, 2022). Dance, Smith suggests, has the potential for “transformation, discovery, play and co-operation” (Smith, 2022). The transformation referenced by Smith is a key ethos of community dance practice, with transformation and empowerment often being cited by participants and practitioners alike as one of the benefits of participation in dance activity (Bartlett 1996; Smith 2022; Houston 2005; Pres, 2002).

Perhaps one of the reasons for the transformative nature of community dance practice is that dance practitioners work with the body in a way that is unique to other movement or body-based disciplines. Community dance practitioners take an inclusive “any age, any body, any dance” approach to dance practice, with dance being the “tool” through which they work with and communicate through (Macfarlane and Pethybridge 2006, p.10). In her book, ‘What dancers do that other health workers don’t’, Greenland (2000) posits

Dance is a frame of mind- a way of being that reveals and affects how we feel about ourselves and each other. ‘Heightened awareness’ is what dance can offer to health and wellbeing contexts. [...] Dancers are people who notice,

explore, play with and take pleasure in, physicality in all its many manifestations. [...] Dancers work with the body as a whole living thing that is full of stories and memories, ideas and solutions (Greenland 2000, pp. 31-33).

In a chapter co-authored with Diane Amans, Ken Bartlett, former director of The Foundation for Community Dance, suggests that community dance practitioners *build* upon individuals' capabilities, by focusing on what people can do, rather than what they cannot (Bartlett and Amans 2017, p.38). In doing so, dance practitioners help individuals to learn and discover new, often surprising, things about themselves by helping to unlock narratives that may lie beneath conscious awareness (Stone 2012). In further support of this argument, Miranda Tufnell, a particularly influential practitioner in the field of community dance, health and wellbeing, proposes that, "moving the body moves the mind, so that we see and feel differently" (2010, p.18). Dance offers an opportunity for individuals to "refine" their physical awareness and therefore explore and understand their body as the interface through which they interact with the world (Tufnell 2017, p.2).

Passing the baton: experiential knowledge as a practitioner

Writing about the history and values of community dance is so much more than an academic exercise in reviewing the literature. As I write, I realise that, during my early days as a community dance artist, I met many of the practitioners I am citing. We have moved together in dance workshops. They have held space as practitioner, which I have gladly inhabited as a participant. It is these experiences that manifest in me as embodied knowledge.

Miranda Tufnell was one such practitioner who left a lasting impression on me as a young practitioner. Recovering from a dance injury and struggling to redefine my sense of identity in the world, I found safety and security in her sessions. Her gentle approach to facilitating, the way in which she offered up creative activities, and invited us to dig deep is an ethos I bring into my own practice

I believe in the transformative and empowering potential of dance because I too have been transformed by the process of dancing.

For more on the ways in which dance continues has been a transformative tool for me as a practitioner, see '*Creative practice as personal and professional recovery*' (Cluderay 2018).

Arts-based interventions for health and wellbeing

There is a wealth of evidence demonstrating how the link between the arts and healing is embedded into our social and cultural practices, going back centuries (Belfiore 2016; Ehrenreich 2008; Fancourt 2017; Hogan 2001; Tufnell 2017). In modern times, greater awareness has developed that arts-based interventions can “work alongside and in support of our beleaguered and overstretched healthcare system” (Tufnell 2017, p.1). These interventions, whether they are art therapy or participatory arts practice, commonly utilise person-centred approaches, which can orientate individuals on “pathways to recovery, building the creative capacity that many in public health consider being central to well-being” (White and Robson 2007, p.12). Using creative or artistic approaches with different populations can provide an alternative way of tackling public health issues, by treating individuals in holistic terms and attending to their physical, psychological, mental and emotional wellbeing, supporting the view that *good* health is more than an absence of pain, illness, or disease. Within this view, the arts contribute to human flourishing by promoting wellness, which is a counter to the reductive medical model of curing illness or treating disease.

As understanding of the intrinsic benefits of the arts has developed over the last few decades, arts and health professionals alike have continued to advocate the value and benefits of the arts to individual and collective health, with an editorial in the British Medical Journal suggesting that by simply “diverting 0.5% of healthcare budget to the arts will improve the health of people in Britain” (Smith 2002, p.1432). In 2017, a report published by the All Party Parliamentary Group for Arts, Health and Wellbeing (APPGAHW) concluded that

It is time to recognise the powerful contribution the arts can make health and well-being. We have three key messages:

- the arts can help keep us well, aid recovery and support longer lives better lived
- the arts can help meet major challenges facing health and social care: ageing, long-term conditions, loneliness and mental health
- the arts can help save money in the health service and social care

(APPGAHW 2017, p.4)

Whilst arts and health practice is not a new or especially revolutionary advancement, research into the causality between the two is still an emerging field. Studies tend to be “unevenly distributed across the field” (APPGAHW 2017, p.34), with a large proportion of research into the effects of arts interventions on conditions like dementia, and fewer into long term, chronic conditions. Repeated calls to substantiate and quantify the impact of an arts-based activity on health outcomes in specific terms has led to several systematic reviews and studies (Angus 2002; Putland 2008; Staricoff 2004) of both research literature and examples of practice. The last 10 years have seen an increase in the number of books (Fancourt 2017; Stickley 2012; Tufnell 2017) being published on the subject. Within these, they discuss some of the inherent issues such as conducting rigorous research, evaluation and monitoring of outcomes, as well as presenting examples of practice.

Arts and health activities range from community-based participatory projects which might be co-designed, to those commissioned by local authorities such as arts on prescription, and further to specific interventions within clinical settings, for example, hospital wards; mental health services; or outpatient clinics such as physiotherapy or respiratory rehabilitation. Research into arts on prescription programmes in the UK have found that participation in creative activities can improve wellbeing (Crone et al 2018; Bungay and Clift 2010; Lonughren et al 2014), social engagement and social inclusion (Bungay and Clift 2010), particularly where participants are involved in creating a “tangible” artistic product and have an opportunity to share this with others (Bungay and Clift 2010, p.280). Other more specific outcomes have also been identified such as reduced hospital admissions for patients with long term conditions, improved diet, reduced smoking and alcohol consumption (Wilson 2015), all of which result in social and economic benefits and a positive return on investment (Whelan, Holden and Bockler 2016).

There is strong evidence that arts interventions can support the health and wellbeing of individuals within a range of populations. Improving mental health and subjective wellbeing is an area commonly focussed on, perhaps because there is a range of validated scales that can be used to measure outcomes for participants. Systematic reviews into the impact of arts participation on mental health and wellbeing have identified the potential of these approaches to contribute positively to the recovery approach to mental health. One of the ways this is

achieved is by helping participants to develop meaning and purpose, coping mechanisms, and a sense of hope (Spandler et al 2007); furthermore, such interventions reduce depression and social isolation by supporting cultural and community engagement (Tomlinson et al 2018). Within healthcare, the arts are used for both their therapeutic effect on clinical outcomes and their effect on staff outcomes such as job satisfaction and education and training (Hemingway and Crossen-White, 2014; Staricoff 2004).

What is less clear, and commonly stated in the literature as an area for further investigation, is the lack of clear evidence around the mechanisms by which outcomes are achieved (Bungay and Clift 2010; Ings and McMahon 2018; Tomlinson et al. 2018). Another complicating factor is that mechanisms for change are conceptualised differently in different models of thought (Hogan 2016). Furthermore, evaluation is not always consistent or sufficiently rigorous enough for the outcomes to be adequately measured, particularly in community practice (Clift and Phillips 2021; Hacking et al. 2006), and there is a lack of research underpinned by robust methodological frameworks, making it difficult to generalise and draw meaningful conclusions from the data (Angus 2002; Clift and Phillips 2021; Hemingway and Crossen-White, 2014; Sheppard and Broughton 2020; Tomlinson et al 2018). Moreover, research design, or the intervention itself, is often inadequately described and more specific problems such as small sample sizes, under-utilisation of control groups and lack of analysis of key variables often make generalisation problematic.

Dance practice, not dance therapy

I make a clear distinction in my work that I am a dance practitioner, not a dance therapist. Whilst there may be a therapeutic impact or health benefit to the work, it is not therapy for several reasons:

- First and foremost, I am not a trained therapist
- The participants are not coming to the sessions as patients. I am not claiming or seeking to cure them of any physical or psychological health conditions.

Miranda Tufnell offers the notion of the artist as a companion, rather than a leader. She suggests that, rather than “trying to heal, or DO, or problem solve, or make anything better”, practitioners simply “offer” a space in which people are able to experience any change that may arise (Tufnell 2010, p.47)

It is this principle of offering and inviting that I use in my work. Although we frequently use the term ‘intervention’ in arts and health work, I prefer to view my practice as *interactions* rather than *interventions*. Viewing it this way allows me to offer the creative activity as a way for participants to find their own truth and a way of expressing their experience.

Therefore, whilst I do not go into this work promising an outcome, I do go in with the intention to bring about positive change. However, there is a softness and lightness of touch that is required for this to happen. One that requires give and take, trial and error, and a letting go of one’s own expectations in order to allow participants to find what it is that they need from the work.

Dance, health and wellbeing

It is widely accepted that dance participation results in a broad spectrum of physical, emotional, mental, psychological, and psychosocial benefits, with many studies seeking to provide evidence and better understand the mechanisms that support specific outcomes. Tufnell posits that “whilst engaging people in physical activity alone is in itself valuable ... there are aspects and approaches to dance/movement which have much to offer in this field” (2010, pp.8-9). Tufnell suggests that dance can engage the “physicality and imaginative expressivity” that results in transformation for those who take part (2010 p.8). Creative approaches to movement, she argues, can move people beyond pure physical activity, by allowing them to develop and refine awareness of their bodies, whilst also offering a form of non-verbal expression.

Burkhardt and Rhodes (2012) suggest that dance, as a form of cultural expression, is “uniquely placed to achieve health and wellbeing outcomes”, as it combines several different elements,

all of which have independent evidence bases, into a single holistic experience: physical activity; social interaction; creative and emotional expression (Burkhardt and Rhodes 2012, p.4). Their guidance for commissioners cites that dance can help to meet key national health strategies such as promoting positive mental health and wellbeing and increasing physical activity (Burkhardt and Rhodes 2012, p.7). They chart how dance participation can provide benefits to participants across the life course from supporting physical, cognitive and social development in the early years, to encouraging regular physical activity in the 19-64 age group and helping to maintain cognitive function and prevent falls in the over-65 population. There is also evidence that dance can help to improve mental wellbeing (Malone 2013), reduce symptoms of depression by increasing vitality and positive affect in psychiatric patients (Koch, Morlinghaus and Fuchs 2007), and contribute to an improvement in quality of life (Bräuninger 2012; Guzmán et al 2016). It has also been suggested that dance can raise pain thresholds and contribute to social bonding (Tarr, Lunay and Dunbar 2016; Tarr et al 2018).

Several systematic reviews and meta-analyses have sought to evaluate the effects of dance and movement on health and wellbeing, with Koch et al. (2019) identifying that research activity in this area has grown considerably since 2012. A 2012 review (Kiepe, Stöckigt and Keil) looked at the effects of dance therapy and ballroom dance on physical and mental illness, reviewing randomised control trials published between 1995 and 2011. Their review identified studies investigating the impact of dance on participants with dementia, Parkinson's disease, Diabetes Type 2, heart failure, breast cancer, depression, and fibromyalgia. They concluded that dance as therapy provides a multisensory experience for patients that includes physical, emotional, cognitive and cultural aspects. Dance movement therapy was identified as being beneficial to individuals with depression, breast cancer and fibromyalgia due to the impact on global wellbeing, pain reduction, quality of life, mood, body image and self-esteem, whereas ballroom dance showed promise for patients with Parkinson's disease, dementia, diabetes and heart failure with improvements in mobility, spatial awareness, blood pressure, body weight and disease-specific quality of life (Kiepe, Stöckigt and Keil 2012).

A 2014 meta-analysis by Koch et al. looked at the effects of dance movement therapy and dance on health-related psychological outcomes as identified in twenty-three studies. The health-related outcomes were classified into five main areas: quality of life, wellbeing, mood

and affect, body image, and clinical outcomes; with sub-analyses of clinical outcomes related to depression, anxiety and interpersonal competence. It was found that there was evidence to support the use of dance movement therapy for anxiety, autism, breast cancer, cystic fibrosis, depression, dementia, eating disorders, the elderly, fibromyalgia, at-risk young people, rheumatoid arthritis, schizophrenia, somatoform disorder, and stress. Meanwhile, dance interventions were found to be effective for depression, elderly participants and those with Parkinson's disease. There was particularly supportive evidence to suggest that dance movement therapy and dance resulted in a decrease of symptoms of depression and anxiety (Koch et al. 2014). An update to this meta-analysis (Koch et al. 2019), covering research published between 2012 and 2018, concluded that "DMT consistently and with a high homogeneity improved effect-related psychological conditions by decreasing anxiety and depression levels, and increased quality of life and cognitive skills" (Koch et al. 2019 p.24). Of the dance studies reviewed, good evidence was found to support the conclusion that dance activity can improve motor skills, for example, in the treatment of Parkinson's disease. However, there was limited evidence within the dataset for other outcomes such as (psycho-)motor functioning and physiological symptoms, with studies investigating these displaying a high level of heterogeneity, making it difficult to conclude.

In 2018, Schwender et al. carried out a systematic review looking at the effects of dance on aspects of participants' self, including body image, body/self-concept, self/body awareness, self-esteem, self-confidence, self-efficacy, and self-development. They identified that dance could have positive effects on aspects of the self in both children/adolescents and adults, particularly concerning body-related perceptions. However, they stated that, due to the overall heterogeneity of studies including small sample sizes, inconsistent findings and methodological shortcomings, evidence for individual aspects remained poor (Schwender et al. 2018)

A 2020 systematic review (Sheppard and Braughton) into music and dance as a way to promote wellbeing and health identified that dance participation can impact wellbeing due to a "variety of social, physical, and personal components", with quality of life and life satisfaction being the most prominent outcome, with this finding applying across a range of age groups from young people to older adults (Sheppard and Braughton 2020, p.12). It was also found that dance participation had a specific impact on cognitive and physical outcomes for older adults, with

results cited such as improvements in cognitive functioning, motor skills, posture and balance. Overall, it was concluded that dance “appears to contribute positively to individuals’ wellbeing and health across cultures and age groups ... [and, it] enables participants to construct and maintain their wellbeing in a range of ways” (Sheppard and Braughton 2020, p. 13). There were however some limitations found within the evidence reviewed. It was noted that many of the studies involved participants over the age of 60 years; whilst men were not excluded from studies, they were underrepresented within the samples (Sheppard and Braughton 2020, p.14); with a similar lack of representation for minority ethnic and LGBTQIAP+ groups (Sheppard and Braughton 2020, p. 15).

Overall, the results of these meta-analyses are persuasive, especially in terms of demonstrating that dance, movement and/or dance movement psychotherapy can directly contribute to health outcomes. However, they all highlight the need for research that is more methodologically robust. It is also notable that reviews commonly conflate dance and music or dance and dance movement psychotherapy, with the research itself conducted in different clinical/non-clinical settings (Koch et al. 2019). Whilst the findings are often discussed individually, each discipline comes with its own set of contributory factors or mechanisms and there is often limited theory discussion of these mechanisms or wider cultural and social practices, making it difficult to understand the effectiveness and application of dance for health and wellbeing (Koch et al. 2019; Sheppard and Broughton 2020). The findings suggest that within this field, studies would benefit from greater methodological rigour including larger sample sizes, control groups and variable analysis. Furthermore, it would be beneficial if research studies sought to investigate the impact of dance on a single outcome or the benefit of a single type of dance on a particular outcome. This is a strategy that has paid off with a series of research studies that focus on the effects of ballroom dancing feeding into our understanding of how dance improve outcomes for individuals with Parkinson’s or balance difficulties.

In summary, the evidence in the literature supports the assumption that the arts, and specifically dance, have both social and health impacts when targeted through interventions. Research into the effects of the arts on health and wellbeing has increased in quantity and quality over the last ten years, with several systematic reviews beginning to synthesise the data

to date and provide useful summaries and analyses that should form the building blocks for future inquiry. However, what almost all of the reviews have identified is that further development is required, and the field has some way to go before a strong evidence base exists. Some of the problematic features of the current discourse around arts and health is a lack of consideration of the specific social and cultural contexts within which art-making, music-making, or dance participation occur (Clift et al. 2021; Sheppard and Broughton 2020) and how this might influence the mechanisms through which change is enacted (Clift et al. 2021; Sheppard and Broughton 2020; Koch et al. 2019). There are further problems in the methodological design and reporting, with the ability to generate meaningful conclusions and replicable results hampered by small sample sizes that are not necessarily reflective of populations.

It is dance or movement?

Within the research literature and within arts practice, the words ‘dance’ and ‘movement’ can often be used interchangeably, or without clear definitions given. The same can be said in my work as a practitioner, and indeed within this thesis. Let us therefore take a moment to consider the two terms and how I understand them within the context of my own work.

The phrase from a well known song comes to mind: “Mother said I was a dancer before I could walk” (Abba, ‘Thank you for the Music’). In fact, my mother expressed that I was “born performing”. If we believe that dancers and performers are people who have trained and honed their craft, then neither of these statements hold true. My perspective as a community dance practitioner is this:

Anyone can move and therefore anyone can dance. It really is that simple.

One of the most beautiful dances I have ever witnessed was during a workshop with a group of mothers, standing in a circle and swaying rhythmically side-to-side as they held their babies in their arms. Those same mothers also “performed” a dance in a musical theatre style to a song by Fred Astaire.

If I were pushed for a definition, I would say that dancing is any form of moving – usually to music – that has a style and structure. It would also usually be identifiable within some sort of genre, whether that is social dancing, ballet, contemporary, ballroom or any one of the many world dances that exist throughout societies and cultures.

However, sometimes as practitioners, we need to think about the way we are setting up our workshops and classes and how different groups of individuals might feel when they hear the word *movement* as opposed to *dance*. Participants had said to me, “...but I don’t have dance experience, so I can’t take part”, whereas others have looked nervous when I describe that a session will include elements of *creative movement* (essentially, improvisation or loosely structured movement invitations). Therefore, I continue to use the terms interchangeably depending upon who I am talking to and the views they might hold.

As you read further into this thesis, you’ll hear the voices of the women who took part in the practical workshops. In the workshops, we sometimes *danced* to a specific dance genre, such as salsa or musical theatre and we also *moved* more freely in open-ended movement invitations. Within the group, we also explored how “maximising movement” with reminders to *move* in the form of Daily Dances could enhance wellbeing for the women who took part. These Daily Dances are simple ways of moving, sometimes to music and sometimes without, but they are no less of a dance than a routine on Strictly Come Dancing, or a boogie on the dancefloor on a Saturday night.

Note: for further discussion of workshop content and the co-design process, please see Chapters Five to Seven.

Maternal health interventions: the wider context

To date, much of the arts-based research within the fields of obstetrics, gynaecology and neonatology focus on the impact of interventions on health outcomes for the infant, with few published studies exploring how interventions might support parental well-being. There has been some work done in art therapy and participatory arts to support new mothers, but much less work done in the areas of participatory dance and movement (Hogan et al. 2017; Hogan 2020). To better understand the evidence base for arts-based interventions on maternal wellbeing, we will first briefly consider non-arts-based interventions.

There is a strong evidence base for psychosocial interventions designed to impact wellbeing outcomes for parents. A systematic review looking at maternal health interventions across the perinatal period found evidence that supported the theory that midwife-led care could be beneficial in preventing depression; psychological and psychosocial interventions could be useful for treating postnatal depression; and further evidence for mind-body and exercise interventions in pregnancy. Parental training programmes were also considered *promising* in preventing maternal mental health problems (Alerdice et al. 2013).

A systematic review into psychosocial interventions for postpartum stress (Song, Kim and Ahn 2015) found that women who received psychosocial interventions were “significantly less likely to experience postpartum stress” compared to those who received *standard care* such as psychological talking therapies (Song, Kim and Ahn 2015, p.188). As an example, Dunn et al. (2012) found that mindfulness-based cognitive therapy provided to women during pregnancy resulted in a decline of self-reported measures of depression, stress and anxiety, with these improvements “continuing into the postnatal period” (Dunn et al. 2012).

A systematic review examining the evidence base for the effectiveness of mind-body interventions during pregnancy on perceived stress, mood and perinatal outcomes (Beddoe and Lee, 2008) considered findings from studies that incorporated psychoeducation, relaxation and yoga or meditation. They found that, whilst there was some evidence to suggest that women received health benefits in the form of mind-body therapies, the methodological

limitations, such as failure to implement controls and reliance on *convenience samples* within the studies reviewed meant that only limited conclusions could be drawn. Beddoe and Lee further criticised the lack of consideration of social influences such as how women might prepare for birth through learning from peers or *role models* and suggested that further studies should also take into account “racial and socioeconomic discrepancies in birth outcomes” (Beddoe and Lee 2008, p.173). This echoes the criticisms and concerns levied towards the evidence surrounding arts and health interventions.

Physical activity interventions for maternal health

Despite the lack of a strong evidence base for the impact of the arts – specifically dance – upon postnatal health and wellbeing, there is growing evidence for the effectiveness of physiological and physical interventions for postnatal wellbeing. Research into the effects of exercise on antenatal health and wellbeing concluded that there were psychological wellbeing benefits associated with regular physical activity during pregnancy and the postpartum period (Rankin 2002). These included improvements in “perceptions of coping assets (positive psychological well-being) and coping deficits (negative psychological well-being), physical well-being, somatic symptoms experienced and body image” (Rankin 2002, p.152).

Another study investigating the outcomes of exercise on indicators of wellbeing found that “physical activity during the postnatal period may play a crucial role in managing the physical and psychological changes that women face” (Cramp and Bray 2009 p.343). A similar study combining physical activity consultations and pram walking (Lee et al 2016) found that whilst participants identified concerns about their wellbeing as a motivator for taking part, psychological well-being remained stable over time in both groups with no evidence of improvement despite qualitative research suggesting that participants perceived their wellbeing to have improved. This conflict between lack of evidence, as defined by clinical measures, set against the contradictory qualitative outcomes demonstrates the difficulty faced by researchers in establishing sound impact.

Other systematic reviews have highlighted the benefits of physical exercise during pregnancy and the postpartum period, citing a range of physical and psychological benefits such as prevention of stress-induced urinary incontinence and reduced symptoms of depression

(Nascimento, Surita and Cecatti 2012), whilst also being associated with higher incidences of vaginal delivery and lower incidences of caesarean delivery, gestational diabetes and hypertensive disorders (Di Mascio et al. 2016).

In summary, whilst many of these studies examining the impact of mind-body and physical activity cite positive outcomes for women in the perinatal period, there remain limitations. Lack of evidence and difficulty comparing studies without consistent use of control groups or attempts to control other variables is continually cited in the literature as a limiting factor for demonstrating the impact of interventions for maternal health and being able to apply the findings to the wider maternal population.

Dance, movement and therapeutic art interventions for maternal health

Much of the research evidence for the benefits of dance and movement for women in the perinatal period is within the field of therapeutic arts practice and dance movement psychotherapy, with some very small-scale studies to be found in the participatory or community arts literature. Unlike the literature previously surveyed in this chapter, there are far fewer systematic reviews or meta-analyses of the evidence, and studies are on the whole qualitative or mixed methods. However, what some of the studies in this area do is engage with the data and wider psychosocial mechanisms within the researchers' particular theoretical and methodological frameworks. Whilst comparison is still challenging because each study takes a slightly different theoretical and methodological approach, it does enable reviewers to gain some understanding of the potential mechanisms at play.

Within the literature, there is evidence to support the benefits of arts participation during pregnancy/labour and the postpartum period. In this section, each phase will be dealt with in turn. It has been suggested that using art therapy during pregnancy and the postnatal period can be useful as a way to aid the transition to motherhood, reinforce social support, improve self-esteem and self-confidence and mediate the other stressors associated with becoming a mother (Hogan et al. 2017, p.14). From a social-cultural perspective, movement and mobility during childbirth have been encouraged by midwives and birthing practitioners as a way of supporting women to attain a natural, active birth (Hogan 2017). "Dance labour" is a specific

contemporary practice that enables midwives, women and birth partners to “actively engage in labor and birth” (Morgan 2021, p.17). Dance labour takes place during the *active* labour phase (Akin et al. 2020) and involves the birthing woman standing upright with their hands on the shoulders of a birthing partner; the pair sway from side to side, accompanied by music, whilst the woman’s sacral area is massaged (Akin et.al 2020). Morgan suggests that the utilisation of dance labour can contribute to “safety, sovereignty and satisfaction” with the birth experience as it allows women to become active participants in the labour process, offering them a sense of control and autonomy. (Morgan 2021, pp. 47-48). Dance labour has also been found to significantly reduce pain scores during the active phase of labour and increase mothers’ satisfaction and neonatal outcomes (Abdolahian et al. 2014; Akin et al. 2020 Morgan 2021).

Writing from a feminist perspective, Hogan has explored the contribution that arts engagement can make to antenatal and postnatal care (Hogan 2015; Hogan et al. 2017; Hogan 2017a; Hogan 2017b; Hogan 2020). Hogan argues that the management of childbirth is a “hugely contested terrain”, a political and ideological *hotspot*, where women are overwhelmed with judgement and advice about how they should or should not birth (Hogan 2017b, p. 418). Hogan presents the argument that our cultural understanding of women is dominated by ingrained misogynistic discourses at all levels of society; with overtly sexualised content in the media, ‘endemic’ self-harm driven by societal standards of beauty reinforced in the media and a historical pathologising of women’s mental health creating the conditions of “women-blaming” leading to this imbalance (Hogan 2013, p.418). By applying this feminist perspective within a wider cultural understanding, Hogan enables us to view the phenomena and the results that follow in her work within the wider social context, resulting in a more nuanced and finely balanced understanding of the unique experience of motherhood.

The Birth Project invited mothers who had given birth and birthing professionals (midwives and obstetricians) to participate in therapeutic art workshops as a way of exploring the experience of childbirth, with a particular focus on birth trauma (Hogan 2015; Hogan 2017a). The Birth Project aimed to explore whether the use of visual methods could “help deliver new insights” about women's experiences of mothering from pregnancy through to post-birth. Employing a Participatory Action Research (PAR) methodology and using phototherapy, photo diaries and

participatory arts, the aim was to use these visual arts-based methods to create and stimulate dialogue, “interrogate discourses”, and especially to explore iatrogenic protocols and the impact of this on wellbeing (Hogan 2015, p.23).

The use of PAR methodology is relevant to the issues that are explored within this thesis as it takes an inclusive approach to research where the participants are engaged as co-researchers, resulting in knowledge production that is “collaboratively made” (Hogan 2015, p.25.) Also relevant within the paper were the links made with different theoretical frameworks: the project artist saw the study within the realms of feminist consciousness-raising by speaking out about the day-to-day lived experience of being a woman, with the women using art to reconceptualise their experiences through making and talking together (ibid. p.29). Hogan situated this within the philosophical framework of Deleuze and Guattari who suggested that art encounter can “challenge habitual ways of being ... jolting our systems of thought” (quoted in Hogan 2015, p.29).

Within the literature, there is a particular focus on the postnatal experience, with several dance therapy and arts-based interventions carried out that seek to ameliorate the symptoms of postnatal depression. A significant UK study in the field found that singing was significantly associated with fewer symptoms of postnatal and that the group singing workshops for mothers enhanced wellbeing, self-esteem and self-reported mother-infant bond (Fancourt and Perkins, 2017). Methodological rigour was present, as data was collected as part of a three-arm randomised controlled trial, in which singing activity was compared against listening to music, with the same psychosocial variables taken into consideration for the analysis. Data was collected using existing validated scales of measure: Edinburgh Postnatal Depression Scale (EPDS), Warwick Edinburgh Mental Wellbeing Scale short version (SWEMWBS), Rosenberg self-esteem scale, and additional self-reported measures of mother-infant bond, and frequency of engagement with music and singing to the baby. It was also noted that social engagement between participants was also a contributing factor to enhanced wellbeing (Fancourt and Perkins 2017). This is a challenge when evaluating any participatory activity, which by its very nature, will include at least some aspect of interpersonal connection in which participants benefit from peer support (the theme of peer support in the literature on interventions for

maternal wellbeing is explored in further detail in Chapter Four: A systematic review of arts-based interventions for maternal wellbeing).

Music is a common practice within the literature on maternal wellbeing interventions. Lullaby singing is frequently used within wellbeing programmes (Carolan 2012; Mackinley et al. 2005 and 2008; Gudmundsdottir and Gudmundsdottir 2010; Palazzi et al. 2017; Persico et al. 2017; Similar outcomes are cited across the studies, with researchers claiming several benefits to both mother and baby, such as feelings of empowerment and decreased stress. However, what does not appear to have been considered is the wider context of lullaby singing: trying to soothe a baby to sleep is an aspect of motherhood that can cause high levels of stress and anxiety for many mothers and families. It is unclear whether it is the act of singing itself, or the result of the activity causing the baby to fall asleep that creates a sense of relief and reduction in stress levels. Another factor acknowledged but not explored was the fact that in many cases, the lullaby singing was implemented in a *multi-modal* way where an embodied approach was taken, with singing combined with physical contact between mother and baby that included actions such as “patting, stroking, rocking, bouncing [and] walking” (Carolan 2012, p.79). Participants were rarely described as carrying out the intervention without other environmental factors or physiological factors that might take place in the lead up to bedtime (bathing; low lighting; movement; skin to skin contact) therefore making it difficult to distinguish whether these factors were also a key mechanism contributing to the reported outcomes.

Whilst there is little evidence available within published literature of participatory dance practice for maternal wellbeing, there are a small number of studies discussing the effect of dance movement psychotherapy or dance therapy on a maternal population (Agnew 2012; Chan 2021; Doonan et al. 2015; Levison 2016; Loughlin 2009; Mandracchia 2021; Pound 2014; Van Puyvelde et al. 2014). Again, as with the literature around art therapy and music participation, the particular focus of these studies is whether these interventions have an impact on symptoms of postnatal depression. On one hand, this is not surprising: up to one in four women can be expected to develop some form of mental illness whilst pregnant or following birth; there are also validated scales of measure that can be administered before, during and after the intervention to elicit quantitative data, often seen as the *gold standard*

when it comes to measuring and proving effect. However, alongside discussion of quantifiable data, the dance therapy literature also seeks to unpack and elucidate some of the less tangible ways in which the practice might contribute to improvements in postnatal depression.

Chan (2021) posits that dance movement therapy can promote psychological wellbeing and reduce depressive symptoms in mothers experiencing postnatal depression by “improving cognitive flexibility and emotional regulation skills, as well as increasing coping skills and internal resources” Chan 2021, p. 34). She further suggests that dance movement therapy has a particular contribution to make towards the treatment of postnatal depression because of how it can help mothers to connect with themselves and their infants through non-verbal communication (ibid.). Mandracchia describes how another aspect of the postnatal experience where women’s sense of wellbeing can suffer is body confidence. As women attempt to come to terms with how their body has changed as a result of pregnancy, labour, birth and breastfeeding, they may feel a lack of confidence “in their skin”, which can be mediated through exploration in the sessions, particularly when this happens alongside other mothers who may be experiencing similar thoughts and feelings (Mandracchia 2021, pp.25-26).

Relationships are important in the dance therapy setting. Loughlin proposes that in dance therapy mothers, *bolstered* by a therapeutic alliance with the therapist, can respond intuitively within a playful environment. “Moments of [...] joint delight” are possible because the environment and relationship *soften* the experience of anxiety and the mother can engage in a mutual activity with her infant (Loughlin 2009, p.81). Environment and relationships are also a consideration for Agnew (2012) who describes facilitating a “relaxing into the space” (p. 3) in the way that mother and baby are *welcomed* at the start of each session. This focus on the mother-infant dyad is particularly key when thinking about the difficulties women experiencing postnatal depression face feeling a sense of attachment or bond with their baby. An *attuned mother* with better well-being is also more able to build a positive relationship with their baby (Chan 2021, p.35). Thus, dance therapy, with its embodied approach to developing secure relationships, increasing self-awareness, and facilitating spaces in which new mothers feel held and supported can be a key mechanism through which *mother-infant togetherness* (Loughlin 2009) is developed.

Chapter summary

This chapter has discussed the literature supporting the theory and rationale for this thesis. There is evidence to support the claims that the arts can contribute to human flourishing and lives better lived, by promoting health and wellness. There is some evidence from small scale studies that arts participation can assist in the management of specific physical, psychological, and physiological health concerns across the life course, although critics of the research express that larger-scale studies with greater methodological rigour are required for this to be confirmed. The same criticisms about study limitations recur across the literature whether appraising arts and health, dance movement psychotherapy or maternal health interventions. Generalisation and direct comparison are often limited by small study samples; varying duration of intervention; inconsistently applied methods; variable effect measurements; and poor or non-apparent theoretical frameworks. The lack of robust, peer-reviewed research into arts-based interventions is further explored and discussed in the following chapter which presents a systematic review of arts-based interventions for maternal health and wellbeing.

Within a maternal population, health and wellbeing outcomes are impacted by involvement in a range of psychological, mind-body, physical and creative interventions throughout the perinatal period from pregnancy through to the postpartum period. There is greater evidence in some modalities compared to others – for example, the effect of lullaby singing or involvement in dance therapy. Furthermore, studies tend to view health through the lens of the medical model rather than a social or public health model and focus on specific health-related outcomes such as antenatal stress and postnatal depression, rather than broader wellbeing outcomes such as life satisfaction, self-efficacy and quality of life. Although reported outcomes around exercise and wellbeing are largely optimistic, there is less evidence to support the benefits of creative physical activity such as dance. Considering the evidence for physical activity and psychosocial interventions with women in the perinatal period, and the benefits of arts-based projects on other populations, this would suggest that research exploring the impact of dance on postnatal wellbeing could make a valuable addition to the existing evidence base: a gap which this thesis aims to contribute towards.

CHAPTER THREE

Methodology

Chapter Overview

This chapter considers the methodological framework for the research by discussing the theoretical context, methodological frameworks and methods employed. The research is situated epistemologically within a qualitative pragmatic paradigm, drawing upon theoretical principles from mixed methods research and participatory action research. The chapter first identifies the ontological and epistemological constructs of social constructionism and pragmatism which provide the theoretical framing for the research. Next, the methodological framework is discussed through the lens of participatory action research. The final section sets out the methods employed for each empirical study that contributes towards the research as a whole.

Research Question

The overarching research question that underpinned the research activities discussed in this thesis is: What contribution might dance make to enhancing maternal wellbeing? This question assumes that dance has a contribution to make, with the focus of the inquiry being to explore *what* this contribution might look like and *why* dance may be uniquely placed to enhance maternal wellbeing outcomes. In the discussion that follows, I explore the means through which this knowledge is acquired.

A practitioner's perspective on methodology

A dull Saturday in early July. The cat is sleeping next to me on a sofa strewn with research guides and methodology textbooks, as I attempt to sort my ontology from my epistemology. Writing convincingly about methodology as if I planned it this way all along is a challenge. In addition to the shifting ephemeral nature of any research – but especially doctoral research – a worldwide pandemic threw my carefully laid plans for face-to-face research workshops up in the air just as I was about to embark on recruitment.

Participatory research dictates that one must be comfortable in the grey zone – the limbo you find yourself in when perspectives and options are still becoming clear. It requires a letting go of your steadfast views in favour of allowing events to unfold. Writing a chapter as if I was in control of every step and fully confident of each action and decision feels lacking in authenticity. A thesis chapter does not fully capture the minutiae of decision making or the countless backwards and forwards conversations with supervisors, peers and potential participants.

Some questions I asked myself when designing and developing the research: What feels right here? Does taking this approach meet my overall aims? Is there an easier or simply way? Is this the best thing for the participants?

Even as I write, the research is still coming together in my mind, forming and changing shape, shifting not unlike the lava lamps I remember from my adolescence. By the time this chapter is “finished”, I guarantee it will have changed some more

Extract from ERC research journal. 3 July 2021.

Introduction

Before discussing the individual elements of the methodology, it is first useful to identify what is meant by the terms used to describe the different components of the methodological approach. Kara (2015) posits that methodology provides the framework for research and is a “coherent and logical scheme based on views, beliefs, and values, that guides the choices researchers make (Kara 2015, p.4).

Crotty (1998) proposes four elements of research: epistemology; theoretical perspective, methodology, and methods. Applying these to this study helps to situate and frame the research within a wider theoretical context. In order to identify these four elements within a research study, Crotty also proposes a series of questions for social researchers to ask themselves: (1) What methods do we propose to use? (2) What methodology governs our

choice and use of methods? (3) What theoretical perspective lies behind the methodology in question? (4) What epistemology informs this theoretical perspective? (Crotty 1998, p.2).

Considering each of Crotty's questions in turn, this research employs a range of mixed methods: a systematic review; focus groups with participants; and exploratory workshops, the latter two make up a co-design process. The methodology governing the use of methods is that of qualitative participatory action research. Underpinning the methods and methodology is a pragmatic theoretical perspective in that it focuses on the practical implications and outcomes of the research and the contribution it has to offer to real life. This is informed by a social constructionist epistemology. Social constructionism is the idea that all knowledge is constructed by individuals within the context of their experience and social interactions.

Epistemological perspective

Constructionism is a perspective that views our way of knowing and understanding phenomena as "tied to the (social) world in which we live" (Braun and Clarke 2013, p.30). Social constructionism challenges the notion that knowledge is based upon "objective, unbiased observation of the world" (Burr 2015, p.2). This means that our understanding is linked to what we already know and experience of the world, other objects (including people) within it, and the social and political systems of meaning that form our world. Within these systems, multiple knowledges rather than singular knowledge, or truth, occur that exist within the particular social, political or ideological context in which they have been generated. Social constructionism is "multidisciplinary in nature" as it is influenced by a number of disciplines, including philosophy, sociology and linguistics (Burr 2015, p.2).

Burr (2015) states that there is no one feature that could be said to identify a social constructionist position. She suggests any approach may be considered social constructionist if it adopts one or more of the following assumptions: a critical stance towards taken-for-granted knowledge; the importance of historical and cultural specificity in producing knowledge; the idea that knowledge is sustained by social processes; the assumption that knowledge and social action go together (Burr 2015, pp.2-5). This research takes the later

approach, by acknowledging that the action taken is dependent upon the values, beliefs, and knowledges of the specific research population.

Burr further suggests that,

social constructionism denies that our knowledge is a direct perception of reality. Instead, as a culture or society we construct our own versions of reality between us. [...] Within social constructionism there can be no such thing as an objective fact. All knowledge is derived from looking at the world from some perspective or other, and is in the service of some interests rather than others (Burr 2015, p.9)

Burr (2015) argues that it is not possible for an individual to *have or not have* knowledge, but instead, it is something that they “create and enact together” (Burr 2015, p. 12). Bryman (2012) states that, within a constructionist paradigm, not only are social phenomena “produced through social interaction” they are also in a “constant state of revision” (Bryman 2012, p. 33).

Crotty (1998) also views constructionism as a “collective generation of meaning” occurring between individuals in particular social contexts (Crotty 1998, p.58). He goes on to suggest that viewing constructivism in relativist terms results in understanding being held more *lightly* (Crotty 1998, p. 64), which, it could be argued, then allow for faster and more fluid “revisions” of the type suggested by Bryman. This is especially relevant in the context of this study, where meaning and understanding of maternal wellbeing was generated and revised between researcher and participants throughout the co-design process.

Theoretical perspective

Whilst constructionism provides the epistemological framework for this research, the theoretical stance is a pragmatist one. Pragmatism first emerged as a philosophy in the United States with the early influential proponents Charles Sanders-Pierce, William James and John Dewey. Speaking as part of a lecture series in 1907, William James argued that the “whole function of philosophy ought to be to find out what definite difference it will make to you and me, at definite instants of our life, if this world formula or that world formula be the true one” (James 1995 [originally published 1907], p.20), Pragmatists believe philosophy should have an

impact on the world and the way we live our lives, and that inquiry can bring about social change (Sleeper 2001). To achieve this, pragmatists reject “abstraction, fixed principles and closed systems” and instead look to embrace “concreteness, facts, action, and power” (James 1995, p.20), viewing knowledge as something that is pursued “for the sake of action”, rather than as knowledge in its own right (Sleeper 2001, p.3). In other words, pragmatism challenges a reliance on fixed theoretical or philosophical perspectives and instead aims to identify the way in which beliefs can serve to develop or progress our understanding of a social problem by a series of actions, that have real-world consequences, or applicability.

Morgan (2014) states that pragmatism can be broadly defined as “a philosophy in which the meaning of actions and beliefs is found in their consequences” (Morgan, 2014 p. 26). Within this philosophy, there is also an understanding that actions are linked to the situations and contexts in which they occur and that actions depend on individual worldviews. Furthermore, whilst actions are linked to consequences, these are open to change depending upon the context in which the action is undertaken. Therefore, meaning derived from action is fluid or temporal, as it changes over time dependent upon the particular set of social circumstances in play at that time. Beliefs, says Morgan, are “continually evolving as a result of ongoing experience”, in a never-ending spiral a belief that resonates with the constructivist view of knowledge and understanding ever-evolving through multiple and continuous revisions (ibid.).

Morgan posits that, as a philosophical paradigm, pragmatism sits somewhere between realism and constructivism, offering a middle ground between these perspectives that have traditionally been polar opposites on the quantitative-qualitative spectrum (Morgan 2014, p.39). Ontologically, Morgan suggests that pragmatists would argue that “even though there is a reality that exists apart from human experience, it can only be encountered through human experience” (Morgan 2014, p.39). From an epistemological perspective, pragmatism, he says, argues that “all knowledge of the world is based on perspective”, so although much of our knowledge may be “socially shared” because it is a product of social experience, we also possess individual, personal knowledge that is a result of our own unique life experiences since birth (ibid.). The social sharing of knowledge and the understanding of unique perspectives in order to generate new knowledge and understanding is of particular relevance to participatory

approaches where multiple individuals are brought together to explore answers to a particular problem.

Methodology

Morgan's interpretation of pragmatism is based on the work of the American philosopher and pragmatist John Dewey specifically his interest in the concept of inquiry. In Dewey's 1933 text *How We Think* (cited in Morgan, 2014), he proposed a five step model of inquiry that starts with a problem or situation for which there is no obvious action (step 1). Next, one should reflect on the nature of the problem using existing beliefs (step 2), before then identifying possible actions that might resolve the problem (step 3). A second reflection occurs at step 4, this time considering what the possible consequences or outcomes of the actions might be. Finally, action is taken in order to address the problem (step 5). Morgan adapts this model with the suggestion that the reflective stages of the process may bring new information to light, which results in a change to the original research question at step 1 or the proposed research design at step 5 (Morgan 2014, p.33-34). This *dynamic* process allows the researcher to *refine* and *revise*, until the most suitable way forward is identified. Pragmatism has a place in today's world of social research because of the emphasis it places on action and the consequences, or impact, of that action. Pragmatic social researchers begin their work by "explicitly anticipating a particular form of social change" and design their work based on the intended, or envisaged, outcomes (Baranov 2012, p.157).

The situating of the research within a pragmatic paradigm provides a lens through which to consider methodological decisions and choices. Rather than questions about "the nature of research methods" pragmatic researchers instead grapple with questions about why research should be carried out one way rather than another way, or to produce one form of knowledge rather than another (Morgan 2014, p.39). Patton (2002) argues that a pragmatic framework can "guide a qualitative inquiry on their practical and applied underpinnings" and produce "meaningful answers to practical questions" without sticking rigidly to a particular philosophical or theoretical paradigm (Patton 2002, p.145). Furthermore, rather than a mix-and-match approach to the research philosophy and methodology, pragmatism offers a comprehensive philosophical paradigm that can be applied to the research process, from start

to finish. Viewing research methods in terms of their intended purpose, outcome or possible consequences, and how they may serve to better answer the research question(s), allows for the most appropriate methods to be chosen because of what the consequences, or possibilities for data are.

Dewey's five step model of inquiry (problem; reflection on the problem; identifying possible actions; reflection on the possible consequences; and finally, action) provides a framework through which purpose, outcome and actions can all be considered. The problem is twofold: first, there is the issue of how women retain health and wellbeing when they become mothers; secondly, there is a lack of research into dance-based interventions that can positively impact the wellbeing of mothers. When reflecting on the problem using existing knowledge, the evidence base for arts-based interventions on other populations; the evidence for the impact of singing on postnatal depression; and the evidence base for the benefits of dance on health and wellbeing can all be taken into account. Furthermore, at this step, we also consider the belief underpinning participatory action research that the end users should be involved during the development phase of any new initiative. Combining knowledge and belief in this stage of the reflection leads to the possibility that a worthwhile action that could be taken to resolve the problem would be to develop a dance-based intervention for maternal wellbeing. The consequences of utilising a co-design approach would be that the outcome is far more likely to resolve the problem for the intended population, and therefore, it would be a worthwhile course of action.

With this in mind, the research adopts a mixed methods methodological framework which includes an empirical study (a systematic review) and qualitative approaches (a co-design process incorporating focus groups and thematic analysis). Braun and Clarke (2013) describe qualitative research as typically falling into two camps – experiential or critical. Experiential qualitative research focuses on meaning, interpretations and perspectives, whereas critical qualitative research is concerned with the way in which language is used to represent or construct meaning about phenomena within the world. This research takes an experiential stance towards the qualitative data gathered, as the views, perspectives and interpretations contributed by the participants are “prioritised, accepted and focussed on” (Braun and Clarke 2013, p.21). The interpretative framework was then built around what was expressed, rather

than being viewed critically or interrogated to different or alternative meaning or interpretation. This process is described as “telling it like it is” or aiming to “get inside people’s heads” (ibid). The focus links with the pragmatist emphasis on “the nature of experience” and the “outcomes of action” (Morgan 2014, p.27).

Within this experiential qualitative methodological framework sits participatory action research. Action research sits within a constructionist paradigm, with reality socially constructed through the interpretations of the researcher (and the researched), based on the knowledge (or data) they gather as a result of the subjective accounts from the people within that social context. Speaking from a healthcare perspective, Koshy et al. define action research as a participative approach employed by practitioners for improving practice within a specific context as part of “the process of change” (Koshy et al. 2011, p.9). In their model, action research is a “continuous learning process” in which the researcher learns and shares their knowledge gained with those who may benefit from it (ibid.). The term participatory action research is used through this thesis to draw focus to the nature of engagement with participants, however within the literature it can also be referred to as simply action research or participatory research.

Wimpenny (2010) argues that participatory action research does not necessarily fit definitively into any singular paradigm and is perhaps more appropriately situated at the boundary of multiple theories. However, any theories that are applied need to take into account the “reframing and reconstructing” of practices within a meaning-making process that is social and political (Wimpenny 2010, p. 90). In contrast, Koshy et al. state,

The essence of the type of enquiry conducted by an action researcher is that it involves an investigation of some component or aspect of a social system. Such a system is composed of humans engaged in interactions [...] The social sciences in embracing action research are driven by the pursuit of meaning and interpretations which are socially constructed, thus forming the systems of belief and understanding that direct and enrich the lives of human beings (Koshy et al. 2011, p. 13)

Therefore, it could be argued that, from an ontological perspective, action research sits within a constructionist paradigm with reality socially constructed through the interpretations of the researcher (and the researched), based on the knowledge or data they gather as a result of the subjective accounts from the people within that social context. Participatory action research also fits within a pragmatic paradigm as it is concerned with action bringing out social or cultural change (or consequences, to use the phrase more commonly used within pragmatism). It is an inherently pragmatic approach in that it focuses on identifying and solving problems, and enacting “meaningful social change” for those people who are directly involved in that social order or cultural context (Wimpenny 2010, p.91).

The pragmatic practitioner-researcher

Discovering pragmatism as a theoretical underpinning that could be applied to my work was one of the great lightbulb moments of the research process. Identifying that there was a philosophical paradigm that fit my world view was reassuring and empowering.

I believe that community arts practitioners are inherent pragmatists. Our work is action research simply by virtue of the way we interact with participants in classes and workshops. We are often looking to bring out some sort of change, whether that be facilitating connections and community, enabling a sense of pride and achievement, or enhancing individuals’ physical or mental health.

As a practitioner working with people who bring a myriad of different understandings into the practice space, I often find myself reflecting in-the-moment on the potential consequences of interjecting with a suggestion, offering a different perspective, or changing my plan entirely in response to the needs of my participants.

As a researcher, the same applies. There may be moments in a focus group when conversation takes an unexpected turn and an instant decision is needed as to whether to allow events to unfold and see where it may lead, or whether to intervene and get the conversation back on track. This is pragmatism in action.

Sitting within, or perhaps alongside, participatory action research is the notion of co-design. Co-design is participatory in nature in that it is a collaborative process between researcher and participants, however it extends the involvement of the participants beyond simply the research stage and into the creation of the service. In co-design, the researcher acts as facilitator, collaborator, and learning resource (Patton 2002), with the process should acting to facilitate “self discovery” and move people “from participants to active partners” (McKercher 2020, p.15). To do this, the researcher or facilitator must share decision-making

power with the group, ensuring that their voices are heard, valued and acted upon (Slay and Stephens 2013). This socially engaged approach to research that values the input of participants moves them from a passive role to one of “co-researchers” or “co-inquirers” (Patton 2002, p.183).

In her book *Beyond Sticky Notes*, Kelly Ann McKercher states that the primary role of co-design is to elevate the “voices and contributions of people with lived experience” (McKercher 2020, p.14). Furthermore, she states that there is no one-size-fits-all approach, as co-design is a process that utilises creative participatory methods (McKercher 2020, p.15). Therefore, a co-design approach can be understood as one in which the researcher and the research partners can make decisions about the methods through which data is gathered, based on social context and the intended outcome. McKercher proposes six mindsets for co-design, that should be thought of as “ways of being and thinking, rather than design tools” and help researchers to think about *who* they are and *how* they behave whilst doing their work (McKercher 2020, p.44):

The Six Mindsets of Co-design

1. Elevating lived experience
2. Being in the grey
3. Valuing many perspectives
4. Curiosity
5. Hospitality
6. Learning through doing

(McKercher 2020, p.44-73)

These mindsets demonstrate that co-design is not simply a method for doing research, but a theoretical and methodological framework that exists within a social constructionist paradigm, in which meaning and understanding is generated and negotiated between the researcher and the research participants. Further discussion of how these mindsets were employed within this research can be found in Chapter Five: Co-designing dance for maternal wellbeing.

Methods

As identified previously in this chapter, methods are influenced by methodology, which is in turn governed by the researcher's theoretical framework (Crotty 1998). As Bryman (2021) states, "[m]ethods are not simply neutral tools: they are linked with the ways in which social scientists envision the connexion between different viewpoints about the nature of social reality and how it should be examined (Bryman 2021, p.19-20). Working within a pragmatic paradigm also provides the lens through which methodological decisions and choices are considered. Adopting a pragmatic approach ensured that the data was collected in order to develop a picture, gain a deeper understanding, and begin to build a theory of the phenomenon under investigation. Rather than a mix-and-match approach to the research philosophy and methodology, pragmatism offers a comprehensive philosophical paradigm that can be applied to the research process as a whole, from start to finish. Viewing research methods in terms of their intended purpose, outcome or possible consequences, and how they may serve to better answer the research question(s), allows for the most appropriate methods to be chosen because of what the consequences, or possibilities for data are.

Study Design

The overarching research question for this study was

What contribution might dance make to enhancing maternal wellbeing?

To answer this question, a series of studies were designed to answer specific aspects of this question from different angles. The research studies were designed to follow on from each other in an iterative way, with the findings and conclusions from the previous study being used to inform the one that followed. Thus, research questions developed throughout the research at points where gaps in the literature or areas of potential further exploration were identified.

The first phase of the research, a systematic review, provided the context for the research, by identifying the existing evidence base. Following a quality appraisal of the studies included in the systematic review, it became apparent that, whilst there were studies evaluating the impact of arts-based interventions on maternal health and wellbeing outcomes, only one of the studies had used any form of user involvement in the design or development of the programme or intervention. This finding provided the rationale for the next phase of the research in which the intention was to co-design a dance-based intervention for and with new

mothers. This co-design phase of the research sought to understand the meaning of wellbeing to first time mothers through semi-structured focus groups and then practical workshops to explore how dance and movement could be used to enhance or improve the aspects of wellbeing that the women themselves identified.

Systematic Review Methods

The aim of this study was to complete a systematic literature review to identify and analyse papers that discuss the use, and subsequent effectiveness, of arts-based health interventions for mothers in the antenatal and postnatal periods. The question posed by the systematic review was:

What is the effect of arts-based interventions on the health and wellbeing of mothers?

Study selection and screening

Searches were conducted through the Library Plus database between June 2019 and February 2022. Search results were filtered to include only peer-reviewed academic journals; reviews; and dissertations and theses, written in the English language. The keywords used in this review were initially identified and selected through (i) the author's expertise in the subject area, (ii) seminal works, and (iii) a series of scoping searches. For the purposes of this review, arts-based interventions are defined as any intervention in which participants are actively engaged in creative or artistic pursuit with an intention to improve an or any aspect of their health. Keywords were agreed by the authors in relation to three categories (i) the art form; (ii) the mode of intervention; and (iii) participant population. Final keywords were (i) dance, movement, singing, music, music making, performing arts, "art making", art, creativity, journaling, creative writing, drawing, arts and crafts, poetry; (ii) arts for health, arts and health, participatory health, community arts, wellbeing, arts project; and (iii) mother(s), pregnancy, postpartum, prenatal, antenatal, postnatal, neonatal. Additional papers were identified by referring to citations/references of the included studies. A full discussion of the identification and screening process can be found in Chapter 4.

Inclusion and exclusion criteria

Papers were included if the intervention: was carried out with mothers during pregnancy, or any time postpartum up until 2 years (at the start of the intervention); the main focus was on the use of an arts-based practice to create or generate original works of art such as performance, spoken word, visual arts, sculpture, journals; and the main focus of the study was to interrogate, evaluate, or discuss the effectiveness of the artistic or creative participation on maternal health and/or wellbeing. A further inclusion criterion was initially included: the main intervention included dance and/or movement. However, as no studies met this criterion the decision was taken during screening to focus on any arts-based creative practice.

Studies were excluded if they were interventions carried out with fathers or a mixed sample of mothers and fathers, with no way to separate the maternal outcomes data from that of paternal outcomes; arts practice was used to look at child development, such as crying or sleep, with the exception of mother-infant bond; where artistically-driven activities were used in the context of facilitating social interaction within a group, for example: nursery rhymes or sensory play; and autoethnographic research or practice-as-research whereby the practitioner/maker/performer is a mother making work about her own experience. 'Grey literature' such as project reports and evaluations, online publications such as blogs or e-zines, or any publication not subject to peer review were also excluded.

Data extraction, quality assessment and synthesis

Data was reported in line with the PRISMA guidance on preferred reporting of systematic reviews (Liberati et al., 2009; Moher et al., 2009). A data extraction sample was completed by all authors, following which the first author carried out full data extraction. Once the above steps had been completed, nine studies remained, with data from seven studies, two of which were by the same author. The review question covered aspects of health that can be measured both quantitatively and qualitatively, so the review generated papers from both qualitative and quantitative disciplines, requiring an integrated approach to data analysis and synthesis, fitting in instances where there is a range of literature that does not fit into traditional research design categories (Aveyard, Payne and Preston 2016).

To further synthesise the data from all included studies, the Quality Assessment Tool for Studies of Diverse Designs (QATSDD) was used (Sirriyeh et al., 2012). The QATSDD was developed for literature reviews that include studies from different methodological perspectives. It is a 16-point tool that allows for qualitative, quantitative and mixed methods studies to be assessed using the same criteria and for “broad quality comparisons to be drawn between papers featuring in reviews which include a diverse range of study designs” (Sirriyeh et.al 2012, p.2). The QATSDD requires that studies are graded: 0 (not at all); 1 (very slightly); 2 (moderately); and 3 (completely), with 12 points applying to all studies regarding of methodology; two points applying to qualitative only; and two applying to quantitative only. Thus, it should be noted that it was possible for a mixed methods study to score higher by virtue of employing both quantitative and qualitative methodologies.

Data was extracted from all studies that covered (i) main intervention details, including sample, population and recruitment; (ii) maternal outcomes measured and any scales or questionnaires used for this purpose; (iii) method and methodology; (iv) summary of findings, both qualitative and quantitative; and (v) author’s conclusions, including recommendations for further development. This data was analysed, with a meta-synthesis conducted on the qualitative data reported in the included studies.

Co-Design Methods

The second phase of the research drew upon the findings from the systematic review by putting into practice some of the recommendations. Specifically, the second study recruited from a maternal population to co-design a dance-based intervention. Due to the coronavirus pandemic, all the research activities were carried out in a secure online meeting room.

The stages of study were as follows:

1. Recruitment via social media and pre-consent meetings to explain the content and scope of the study.
2. An initial online focus group that introduced participants to the study aims and objectives and elicited responses to the first set of research questions:
 - i. What does maternal wellbeing mean to a maternal population?

- ii. What are the challenges to wellbeing for new mothers?
3. A series of three practical one and a half hour workshops introduced participants to ways of moving including different dance styles, taught sequences, movement games, improvisation, choreography. Participants also had access to self-led dance tasks Daily Dances in between sessions if they wished. Participants also reflected on their experience during the dance workshops, with questions designed to capture their emotional and psychological responses.
4. A second focus group, in which participants were invited to reflect on their experiences. This second focus group aimed to elicit responses regarding both the design and impact of the intervention.
 - i. What impact have the practical workshops had on wellbeing?
 - ii. What would be the ideal components to include in a dance-based wellbeing intervention?
5. Following the second focus group, the sessions were transcribed and analysed using thematic analysis.

A full description of the co-design procedure and methods can be found in Chapter Five, with the thematic analysis following on from this in Chapter Six.

Chapter summary

This chapter has discussed the theoretical and methodological underpinnings for this thesis. It has demonstrated how the research is informed by a pragmatist perspective, and that this is particularly suited to this field of enquiry, as it is concerned with the way in which research can contribute practicable solutions to real world problems. This in turn informs the qualitative co-design methodology, whereby the focus is on understanding lived experiences from the perspective of those individuals in the real world context, and then using that understanding to create meaningful outcomes.

CHAPTER FOUR

A systematic review of arts-based interventions for maternal wellbeing

Chapter Overview

This chapter presents the findings from a systematic review conducted to examine the existing evidence base for arts-based interventions on maternal health and wellbeing outcomes. The chapter first builds upon the discussion of the literature found in *Chapter 2: Literature review*, by describing the rationale for conducting a systematic review of the literature. Secondly, the description of the systematic review methods previously outlined in *Chapter 3: Methodology* is expanded upon. The chapter continues by presenting an overview of the results of the systematic review, including a quality assessment and descriptions of the study characteristics and maternal outcomes measured. The final section of the chapter presents a meta-synthesis of the studies, attempting to draw some conclusions about the outcomes and what mechanisms may have facilitated these. In doing so, the systematic review provides the rationale for the primary study: a co-designed dance-based intervention for maternal wellbeing.

Introduction

The preceding literature review chapter surveyed the literature contributing to the evidence base for the use of arts-based interventions with a maternal population. It identified several key gaps in the evidence base: (i) within the literature, there is a scarcity of research about arts-based interventions for all populations that are methodologically robust; (ii) there is a particularly small number of studies discussing the use of arts-based interventions with a maternal population; (iii) the studies that exist across both these fields often fail to fully discuss or identify the potential mechanisms through which change occurs.

It is acknowledged that arts-based interventions can improve wellbeing and health outcomes within general adult populations (Angus 2002; APPGAHW 2017; Bungay and Clift 2010; Fancourt 2017; Leckey 2011; Spandler et al. 2007; Staricoff 2004; Stickley 2012; Putland 2008;

White and Robson 2007). Although our understanding of the contribution of the arts to health and wellbeing has grown considerably over the last few decades, there are still certain populations within which the benefits of participation in the arts or creativity is under-researched. One such area is that of women in the antenatal and postnatal periods. Within a maternal population, studies are more heavily weighted in particular aspects of the maternal experience, such as neonatal or newborn outcomes and postnatal depression. There is far less research, if any, exploring the promotion of overall wellbeing, including contributory factors such as maternal self-efficacy, life satisfaction or quality of life.

At the time of writing, there were no published systematic reviews on arts-based health interventions with mothers. Up to this point, the evidence base for arts and health interventions with a maternal population has consisted mainly of disparate, isolated pilot studies predominantly led from a practice-based perspective with little theoretical underpinning. This systematic review examines published studies that focus on the relationship between arts-based activity and maternal health and/or wellbeing. The question this review aims to answer is: 'What is the evidence base for arts-based interventions within a maternal population?' Furthermore, it aims to document and review: (i) the art practices currently in use with maternal populations, (ii) the rigour used in study design and evaluation, and (iii) the range of outcomes under investigation and their significance.

Methods

Protocol

The PRISMA statement (2020) has been used as a guide for the methods and reporting of this systematic review. The PRISMA statement includes a checklist of features that are considered to be important for completing a systematic literature review, including search strategy; screening methods; and reporting /discussion of results.

Information sources

Studies were identified through a search of the Library Plus electronic database, which covers a range of databases including Cochrane; Science Direct (Elsevier); CINAHL+; Medline; PsychInfo; EBSCO E-journals; JSTOR; and SCOPUS. Search terms and keywords were identified by the doctoral researcher, supported by two research supervisors and a health sciences

subject librarian. Database searches were conducted between June 2019 and February 2022. The search strategy was split into three categories: the arts; arts-based interventions; maternal population, and their related terms (See table below for the full search terms). Search terms were limited to title and abstract only, with filters applied for peer-reviewed articles in academic journals and the English language.

Table 1: Categories and related search terms

Category	Related search terms
1. <i>The arts</i>	danc* OR movement OR sing* OR music OR “music making” OR “perform* art” OR art making” OR “art” OR creativity OR journaling OR “creative writing” OR drawing OR “arts and crafts” OR poetry
2. <i>Arts-based interventions</i>	“arts for health” OR “arts and health” OR “participatory health” OR “community arts” OR wellbeing OR “well-being” OR “arts project”
3. <i>Maternal population</i>	mother OR pregnan* OR postpartum OR prenatal OR antenatal OR postnatal OR neonatal

Eligibility Criteria

The search results were first screened by title and, where necessary, the abstract to identify any studies meeting the criteria. Studies were included if they were (i) carried out with mothers during pregnancy, or any time postpartum up until 2 years (at the start of the intervention); (ii) the main focus was on the use of an arts-based practice to participate in, create or generate original works of art such as performance, spoken word, visual arts, sculpture, journals; and (iii) the main focus of the study was to interrogate, evaluate, or discuss the effectiveness of the artistic or creative participation on maternal health and/or wellbeing. A further inclusion criterion was initially included: the main intervention included dance and/or movement. However, as no studies met this criterion the decision was taken during screening to focus on any arts-based creative practice.

Table 2: Inclusion/exclusion criteria

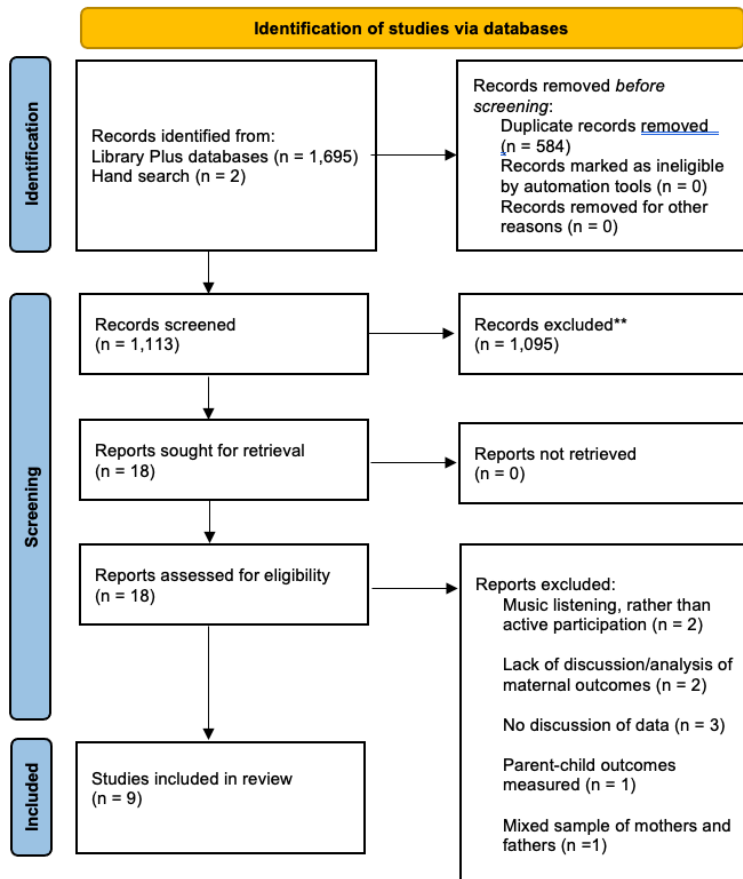
<i>Inclusion Criteria</i>	<i>Exclusion Criteria</i>
Published in a peer-reviewed journal	'Grey literature' such as project reports and evaluations; online publications such as blogs or e-zines; or any published magazine or journal not subject to peer review
English language	Published in a language other than English
Carried out with mothers during pregnancy, or any time postpartum up until 2 years (at the start of the intervention)	Carried out with fathers or a mixed sample, with no way to separate maternal versus paternal outcomes
Focussed on the use of an arts-based practice to create or generate original works of art such as performance, spoken word, visual arts, sculpture, journals	Artistically driven activities are used in the context of facilitating social interaction within a group, for example, nursery rhymes or sensory play.
The main focus of the study was to interrogate, evaluate, or discuss the effectiveness of the artistic/creative participation on maternal health and/or wellbeing	Arts are used to look at the responses of babies such as crying, sleep or other areas of child development
	It includes autoethnographic research or practice-as-research whereby the practitioner/maker/performer is a mother making work about her own experience.

Data screening and extraction

Once all studies had been screened by title and abstract, a full-text screen was carried out, using the eligibility criteria in Table 2 above. 17 studies were screened, with a sample of 11 provided to the research supervisors and discussed to ensure consensus. Five studies were excluded following a full screening of the text either because of (i) lack of discussion or poor reporting on outcomes or (ii) inseparable maternal-infant data, with 11 studies remaining for full data extraction. Data were extracted from these papers using a matrix pre-agreed by the research team and with the following headings: (i) overall aim and purpose; (ii) main intervention details; (iii) study design, including methods, population, sample and recruitment;

(iv) maternal outcomes measured, including any validated scales; (v) summary of results; (vi) reviewer’s conclusions.

Figure 1: PRISMA diagram



Results

Overview of included studies

The review identified nine studies that met the inclusion criteria. The oldest paper to be included in the review was a study published in 2011, whilst the most recent was from 2020. As the included studies were all published in the last decade, this indicates that whilst arts and health practice within maternal populations is not a new practice, empirical research in the field has received limited attention. The included studies and their characteristics are presented (alphabetically by first author and date) in Table 1. The studies were conducted in the United Kingdom (n=4), Ireland (n=1), Australia (n=1), Germany (n =1), and Columbia (n=2). Three out of the four studies in the UK (Fancourt 2017; Fancourt 2018; Perkins 2018) were conducted by the same research team, with the Columbian studies (Ettenberger 2017;

Ettenberger 2018) also carried out by the same principal investigator. This demonstrates that the evidence base is growing thanks to a small number of researchers.

Participant demographic information and inclusion/exclusion criteria were not consistently reported, however, sample sizes ranged from six participants in a qualitative study (Carolan 2012) to 391 participants in a quantitative study (Fancourt 2017). One study (Perry 2008) did not report participant ages, with some studies reporting age ranges, and others reporting an average or mean. Two studies reported data from interventions delivered during pregnancy (Carolan 2012; Demecs 2011), with the remaining six occurring in the postpartum period. Intervention timings – duration, frequency, time period – were not reported in any consistent way across the included studies.

Of the studies reviewed, music and singing are the most prevalent interventions employed, with all studies including this either as the main art form or as a key component within a programme of creative activities. One study (Carolan 2012) looked specifically at lullaby singing whilst two studies (Ettenberger 2017; Ettenberger 2018) investigated the effectiveness of music therapy on maternal outcomes, alongside those of infants. Another group of studies collected data taken from 391 mothers and analysed the difference in health and wellbeing outcomes between singing to babies, listening to music and group singing (Fancourt 2017, Fancourt 2018; Perkins 2018). Two studies (Demecs 2011; Perry 2008) adopted a creative programming approach, with singing and/or music alongside dancing, storytelling, and craft-making activities, such as weaving, poetry, and ceramics. The two studies that used multiple forms of creative activity (Perry 2008; Demecs 2011) also sought participant's feedback on their preferences, with participants articulating a preference for singing over other forms of creative activity and expressing greater enjoyment of the music sessions, compared to creative writing and crafts (Perry 2008).

Although not consistently reported, it appeared that the interventions were delivered by both specialist and non-specialist arts practitioners. In some instances, a collaborative approach was adopted, with sessions conducted by creative or artistic practitioners working alongside health professionals such as midwives (Carolan 2012) or health visitors (Perry 2008).

Study Design and Data analytic approaches

The studies included contained a range of approaches to data collection, both in terms of the variety of outcomes measured and the methods used. Six studies engaged either quantitative or mixed methods approaches and employed validated scales to measure maternal outcomes. Three studies were solely qualitative. All studies that gathered qualitative data utilised thematic analysis. Table 3 presents the methodological and data analytic approach for each study, alongside the type of intervention.

Quantitative

Two of the included studies conducted a randomised controlled trial to investigate the impact of singing and/or music on aspects of maternal wellbeing, including mother-infant bond and postnatal depression (Fancourt 2018; Wulff 2020). A third study (Fancourt 2017) adopted a comparative approach, investigating the associations between singing to babies and symptoms of postnatal wellbeing, wellbeing, self-esteem and mother-infant bond, compared to listening to music. A range of validated scales was employed to measure anxiety, postnatal depression, mental wellbeing, mother-infant bond, self-esteem and self-efficacy (see Table 5).

Qualitative

Three studies utilised a qualitative approach (Carolan 2012; Demecs 2012; Perry 2008). The qualitative studies favoured semi-structured interviews as the primary mode of data collection, with Demecs (2011) triangulating this data with participant diaries and researcher field notes. Qualitative data were analysed using thematic analysis however this was reported in varying degrees of detail in terms of the reporting of both the methodology and the results.

Mixed methods

Of the nine included studies, three adopted a mixed methods methodology (Ettenberger 2017; Ettenberger 2018; Perkins 2018). These studies combined the use of psychometric scales with either semi-structured interviews (Ettenberger 2017; Ettenberger 2018) or focus groups (Perkins 2018). Qualitative data were analysed using thematic analysis.

Table 3: Study design and type

First author (date) <i>Country</i>	Methodological approach	Intervention type
Carolan (2012) <i>Ireland</i>	Qualitative (Inductive thematic analysis)	Lullaby singing
Demecs (2011) <i>Australia</i>	Qualitative (Inductive thematic analysis)	Singing / dancing / storytelling / weaving
Ettenberger (2017) <i>Columbia</i>	Mixed methods (Thematic analysis / statistical analysis)	Music therapy
Ettenberger (2018) <i>Columbia</i>	Mixed methods (Inductive thematic analysis / comparative statistical analysis)	Music therapy/song writing
Fancourt (2017) <i>UK</i>	Quantitative (Multiple linear regression modelling)	Singing
Fancourt (2018) <i>UK</i>	Quantitative (RCT) (ANOVA / sensitivity analysis)	Group singing
Perkins (2018) <i>UK</i>	Qualitative (Inductive thematic analysis)	Group singing
Perry (2008) <i>UK</i>	Qualitative (Inductive thematic analysis)	Creative writing (poetry) / card making / collages / ceramics / music
Wulff (2020) <i>Germany</i>	Quantitative (RCT) (ANOVA analysis)	Music/singing

Outcomes measured

In the studies identified, a broad range of maternal outcomes was measured (see Table 4). Studies tended to favour measuring health outcomes for which there are existing clinical scales such as postnatal depression (PND), anxiety and mother-infant bonding. The Edinburgh Postnatal Depression Scale (EPDS) was used as a tool in three papers. Whilst other studies did state that the intervention was measuring the impact on postnatal depression (Perry 2008) no scales were used.

Table 4: Maternal outcomes measured

First author (date) Country	Anxiety	Postnatal depression	Stress/mental wellbeing	Mother-infant bond	Social support
Carolan (2012) <i>Ireland</i>	Y	-	Y	Y	-
Demecs (2011) <i>Australia</i>	-	-	Y	Y	Y
Ettenberger (2017) <i>Columbia</i>	Y	-	Y	Y	-
Ettenberger (2018) <i>Columbia</i>	Y	Y	Y	Y	-
Fancourt (2017) <i>UK</i>	-	Y	-	Y	-
Fancourt (2018) <i>UK</i>	-	Y	-	-	-
Perkins (2018) <i>UK</i>	-	Y	-	-	-
Perry (2008) <i>UK</i>	Y	Y	Y	-	Y
Wulff (2020) <i>Germany</i>	Y	Y	Y	Y	-

Table 5 shows the psychometric scales adopted to assess quantitative health and wellbeing outcomes within the studies. The Edinburgh Postnatal Depression Scale (EDPS) was adopted in three studies, all carried out in the UK (Fancourt 2017; Fancourt 2018; Perkins 2018), with the short version of the Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), used in two studies, one in Columbia (Ettenberger 2018) and one in the UK (Fancourt 2017). Other scales included the State-Trait Anxiety Index (STAI) (Ettenberger 2018); the Mother-Infant Bonding Scale (MIBS) (Ettenberger 2017; Ettenberger 2018); the Hospital Anxiety Depression Scale (HADS) (Ettenberger 2018); and the Rosenberg Self Esteem Scale (Fancourt 2017). One study (Fancourt 2017) also used a Likert scale (0-5) to measure self-reported mother-infant bond. In some cases, researchers designed specific questionnaires to collect information on behaviours, cultural activity or preferences (Demecs 2011; Ettenberger 2017; Ettenberger 2018; Fancourt 2017).

Table 5: Psychometric scales

First author (date) Country	EDPS	STAI	MIBS	HADS	SWEMWBS	MAAS	RSES	ASKU	Other
Carolan (2012) <i>Ireland</i>	-	-	-	-	-	-	-	-	-
Demecs (2011) <i>Australia</i>	-	-	-	-	-	-	-	-	-
Ettenberger (2017) <i>Columbia</i>	-	Y	Y	-	-	-	-	-	-
Ettenberger (2018) <i>Columbia</i>	-	-	Y	Y	Y	-	-	-	-
Fancourt (2017) <i>UK</i>	Y	-	-	-	Y	-	Y	-	Mother-infant bond (Likert scale)
Fancourt (2018) <i>UK</i>	Y	-	-	-	-	-	-	-	
Perkins (2018) <i>UK</i>	-	-	-	-	-	-	-	-	
Perry (2008) <i>UK</i>	-	-	-	-	-	-	-	-	
Wulff (2020) <i>Germany</i>	Y	Y	-	-	-	Y	-	Y	Self-assessment manikin (SAM): emotional state / Visual analogue scale (VAS): perceived closeness to the baby

Quality Assessment

Quality assessment was carried out using the Quality Assessment Tool for reviewing Studies with Diverse Designs (QATSD) (Sirriyeh et al 2011), a 16-item scale that allows for assessment of studies with different methodological approaches. Each item carries a maximum score of three, with 12 items applying to all studies, a further two applying to studies with a qualitative methodology, and the final two applying to qualitative studies. It is, therefore, possible for mixed methods studies to score more highly due to the nature of the study design incorporating more qualitative and quantitative approaches. This assessment (see table below)

highlighted several limitations within the literature as a whole. Firstly, studies are rarely supported by explicit theoretical frameworks, with only one study (Perkins 2018) referring to the theoretical underpinning, therefore meaning that subsequent analysis and discussion of results are not sufficiently or critically explored. The same applied to the application of research methodologies where samples were rarely representative of the larger population and description and rationale for chosen methods was not consistently provided. The most striking limitation revealed through quality assessment was that although pilot studies are common, user involvement or co-design is often a feature of the research design. Whilst studies sought feedback from participants, this was carried out post-intervention with one single study (Demecs 2011) inviting ongoing reflection on the process. None of the studies reported negative or neutral outcomes, however, the results need to be interpreted with caution given the methodological limitations in many studies including small sample sizes and lack of control or comparison group. Table 6 displays the final quality assessment scores, in descending order, starting with the highest score.

Table 6: Quality assessment (QATSDD)

First author (date)	Study design	Explicit theoretical framework	Statement of aims / objectives In main body of report	Clear description of research setting	Evidence of sample size considered in terms of analysis	Representative sample of the target group of a reasonable size	Description of the procedure for data collection	Rationale for choice of data collection tool(s)	Detailed recruitment data	Statistical assessment of reliability and validity of measurement tool(s) (Quan only)	Fit between stated research question and method of data collection (Quan only)	Fit between stated research question and format and content of data collection tool (Qual only)	Fit between research question and method of analysis	Good justification for analytical method selected	Assessment of reliability of analytical process (Qual only)	Evidence of user involvement in design	Strengths and limitations critically discussed	Total score <i>[maximum that could have been achieved based on study design]</i>
Perkins (2018)	Quali	3	3	3	1	2	3	3	2	-	-	3	3	3	3	0	2	34 <i>[42]</i>
Demecs (2011)	Quali	1	2	2	1	1	3	3	3	-	-	3	3	3	2	1	2	30 <i>[42]</i>
Wulff (2020)	Quant	0	1	3	2	1	3	3	2	1	2	-	3	3	-	0	2	29 <i>[42]</i>
Fancourt (2017)	Quant	1	3	3	2	3	2	2	2	0	3	-	3	1	-	0	3	28 <i>[42]</i>
Ettenberger (2017)	Mixed	1	3	3	1	2	3	2	1	0	2	2	3	1	1	0	2	27 <i>[48]</i>
Ettenberger (2018)	Mixed	1	1	3	1	2	2	0	1	0	3	2	3	1	0	0	3	23 <i>[48]</i>
Fancourt (2018)	Quant	1	2	3	1	1	2	0	2	0	3	-	3	2	-	0	2	22 <i>[42]</i>
Perry (2008)	Quali	1	3	3	1	1	1	1	1	-	-	2	2	1	0	0	1	18 <i>[42]</i>
Carolan (2012)	Quali	1	1	2	1	1	2	0	2	-	-	2	3	0	1	0	1	17 <i>[42]</i>

Summary information of included studies and findings

Study 1: Carolan (2012)

This qualitative study, conducted in Ireland, aimed to explore women's experience of singing lullabies in pregnancy and their understanding of the possible benefits for themselves and their infants. This was a midwifery-led intervention involving three midwife researchers and two musicians, with sessions were conducted immediately before routine antenatal classes – a decision made for the convenience of the women participating. Six mothers, pregnant with their first child and aged between 29 and 35, were recruited at antenatal classes that were held at a maternity hospital. They participated in four group sessions with musicians, for which they were taking part in warm-up exercises and learnt a series of three different lullabies. At the end of the programme, women were given a CD of the lullabies to take home. The women were interviewed using semi-structured interviews at three months postpartum and were asked about their experience of singing lullabies in pregnancy and the perceived value of this. Their responses were analysed using thematic content analysis, following which three themes were reported: (1) beyond words: music and the articulation of deep emotion; (2) a balm for the soul: the power and pleasure of beautiful music; (3) music and the facilitation of infant development.

The small sample of six participants means that the value of the findings must be considered with this in mind. Additionally, four out of the six participants were employed in professions where creative activity is not out of the norm, raising the question as to whether they were more pre-disposed to the potential benefits of an artistic intervention than those for whom the creative activity is not part of their cultural and social background. Therefore, generalisation from this study would be ill-advised, as the sample is not necessarily representative of the population as a whole. Although it was suggested that the intervention could be used as a way to resolve anxiety, the women found it difficult to articulate *how* the intervention helped to allay their fears and anxieties. With no objective data to support this conclusion, it is difficult to determine whether it was indeed the intervention that had an effect. The authors acknowledged that the choice of intervention content (lullabies) may in itself have had an impact on the women's emotional responses. Soothing melodies, lullaby

temp similar to the rate of the human heartbeat and meaningful lyrics may also have contributed to the positive experience of the women. Without a control group, it is hard to distinguish whether it was the lullabies themselves or the act of singing that brought about the results.

Study 2: Demecs (2011)

This qualitative study explored the experiences of pregnant women attending a Creative Activities in Pregnancy Program (CAP-Program) in Australia, facilitated by a midwife with a background in creative arts. The CAP-Program offered women an opportunity to participate in singing, “gentle dancing exercise”, storytelling and weaving, with these activities chosen following a review of the literature around the benefits of different types of artistic and creative activity. These activities were delivered over two months, with six sessions of two hours each that included each of the three activities. Twelve mothers, aged between 26 and 38 started the programme, with seven attendees completing it.

Data were initially collected in the form of participant diaries, where women completed an entry following each session that recorded their feelings experiences; and field notes recorded by the first researcher, including the perceived participant response to activities. Semi-structured interviews explored topics contained in the diaries and field notes, and a questionnaire asked participants questions about the structure and content of the programme. The thematic analysis found four themes: (1) Seeking support; (2) Connecting with each other, myself and the baby; (3) Finding a place to share, learn and grow; and (4) Finding balance. Participants expressed that the social contact as a result of attending the CAP-Program helped them in the transitional stage they were in.

This was the only study to have excluded women already participating in recreational or professional activities such singing, dancing or art, therefore possibly providing a more representative sample of the general maternal population, rather than those already “on board” with creative engagement as a worthwhile activity. The findings from this study relating to an enhanced sense of social support and emotional wellbeing correlate with other papers in the field. Additionally, the authors go one step further, suggesting that the creative activities nurtured maternal instinct, although no specific examples were given. Furthermore, the

suggestion that the arts can be used as a teaching tool and a way to share and/or regain cultural knowledge about birth and the transition to motherhood as well as facilitating their confidence to make decisions based on their needs and preferences is an interesting proposition. This finding is perhaps related to the fact that the intervention was led by a midwife, who facilitated discussions related to women's fears, hopes and expectations, whilst also sharing her knowledge around maternity and childbirth.

Study 3: Ettenberger (2017)

This mixed-methods study, carried out in Columbia, investigated the impact of music therapy on the parents of pre-term babies. Data was collected on fathers, mothers and babies; however, it was analysed separately, therefore making it suitable for inclusion in this review. In this study, participants were allocated to either the intervention group or a control group, with each group matched for socioeconomic and baseline data. 17 women, aged between 13 and 41, were included in the intervention group. Participants took part in music therapy sessions held twice weekly, whilst carrying out kangaroo care, during the period their baby was hospitalised on a Neonatal Intensive Care Unit (NICU).

Participants were asked to complete the State-Trait Anxiety Index (STAI) and Mother-Infant Bonding Scale (MIBS) immediately after the therapy sessions and were invited to take part in a semi-structured interview three to five months after their child's discharge from the hospital. Data from the interviews were analysed using thematic analysis.

It was reported that analysis of the STAI and MIBS showed a general improvement in bonding and a statistically significant reduction in maternal anxiety. However, the STAI and MIBS results were not compared between the intervention group and the control group, as the control group data reported focussed on physiological outcomes for the infant, such as heart rate.

Thematic analysis was carried out separately for mothers and fathers, however, the thematic map combined responses from both, with results reported as "parents" rather than mothers and fathers. The discussion, however, does touch briefly on the different needs and perceptions of mothers and fathers, with fathers more frequently mentioning "distraction"

and “enjoying music therapy” than mothers, while mothers more frequently commented on responses related to “relaxation” or “empowerment”.

Study 4: Ettenberger (2018)

A mixed-methods study measuring the impact of music therapy song writing on mother-infant bond, depression, anxiety and mental wellbeing in mothers of preterm infants in a NICU. The researchers hypothesised that music therapy song writing would have a positive effect on maternal bonding, anxiety levels, depressive symptoms and mental wellbeing. The participants were 15 women – aged between 14 and 35 – and their babies – born between 28-34 weeks’ gestation – who took part in the sessions whilst doing Kangaroo Care. Other family members – fathers and grandparents – were also present during the sessions, however, data was not collected from them. Participants completed scales (Mother-Infant Bonding Scale, Hospital Anxiety Depression Scale and the Short Warwick Edinburgh Mental Wellbeing Scale) at three points: before the first session, in the middle of the process, and at the end of their final session. Given the small sample size, statically significant results were not detected, however, improvements were noted across all the domains measured. Qualitative data in the form of semi-structured interviews were also collected and analysed using thematic analysis resulting in three themes: bonding, maternal wellbeing and empowerment. Subthemes were connectedness, expressing emotions/feelings and relationship (bonding); relaxation, pleasant experience and distraction (maternal wellbeing); and wellbeing of the baby, active care, and future (empowerment). Participants expressed that they felt more connected to their baby during music therapy and were able to express themselves through song. They felt relaxed, calm and peaceful during the therapy sessions and saw them as a distraction from their other concerns and worries. The empowerment participants experienced came from a sense of being able to interact with and care for their babies using music and the song they wrote as their child grew up.

For a study combining methods, the sample size of 15 participants was too small to produce statistically significant quantitative data and, whilst the results do support the hypothesis, caution should be employed when interpreting the results due to the small sample size. In the discussion, the authors have reported standard deviation and means, however, they failed to present a full statistical analysis. Furthermore, the study design did not attempt to control for

confounding factors such as kangaroo care and members of the women's support network being present, making it difficult to separate the impact of the intervention itself as both of these practices (kangaroo care and strong support networks) have been shown in and of themselves to have an impact on maternal wellbeing. Therefore, whilst conclusions can be drawn about the combined effect, it is difficult to establish— as the authors themselves highlight in their discussion of limitations —the effect of music therapy alone.

Study 5: Fancourt (2017)

This quantitative study aimed to explore whether there is an association between singing to babies daily and symptoms of postnatal depression, wellbeing, self-esteem and self-reported mother-infant bond. The data for this study was gathered as part of a wider mixed-methods study. The sample consisted of 2306 women in the final trimester (28 weeks or more) of pregnancy and up to 40 weeks post-birth. The participants were 391 women between four and 40 weeks postpartum, with an average age of 31.8 years. The study measured symptoms of postnatal depression, wellbeing, self-esteem, and mother-infant bond against listening to music and singing to the baby. Symptoms of depression were measured using the Edinburgh Postnatal Depression Scale (EDPS); wellbeing was measured using the short version of the Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), and self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES).

The results suggested that singing to the baby was significantly associated with a reduction in the symptoms of postnatal depression and enhanced wellbeing, self-esteem and mother-infant bond. Whilst listening to music was also found to be beneficial to postnatal depression and wellbeing, this was offset when accounting for other types of creative engagement in the statistical adjustments, and there was no suggestion that listening to music affected mother-infant bond or self-esteem.

Multiple linear regression models were used to adjust for confounding demographic variables: age of mother/baby, education, household income, whether women were primiparous or multiparous, and marital status (Model 2); and potential confounding factor of participation in creative activities: arts participation or cultural engagement within the last three months and either daily singing or listening to music (Model 3). Daily singing to the baby was significantly

associated with fewer symptoms of postnatal depression (13.2% of the variance), as well as enhanced wellbeing (10.7% of the variance), self-esteem (7.1 variance) and self-reported mother-infant bond (8.2% variation). There was also an association between listening to music and fewer symptoms of depression (8.3% variance) and enhanced wellbeing (6.6% variance) when adjusting for the confounding demographic variables. However, these effects were attenuated when the model was adjusted for participation in other creative activities, suggesting that there was no correlation between these effects and listening to music alone. There was also no evidence that listening to music impacted self-esteem or self-reported mother-infant bond.

Study 6: Fancourt (2018)

A three-arm randomised controlled trial in which participants were allocated to a 10-week community singing programme, a 10-week play activities programme, or a control group with no intervention. The participants were adult women up to 40 weeks postpartum who were identified as having symptoms of postnatal depression, indicated by the Edinburgh Postnatal Depression Scale (EDPS). The EDPS has two cut off levels: EDPS ≥ 10 indicating symptoms of depression and EDPS ≥ 13 indicating more severe depressive symptoms.

Participants were randomised into one of three groups: the singing group (experimental; the active playgroup (comparison); or the control group. Women in the singing and playgroups attended weekly 60-minute sessions with their baby for 10 weeks, with the same professional workshop leaders facilitating both groups to ensure consistency between the two groups. In the singing workshops, the mothers listened to songs sung by the workshop leader; learnt and sang songs with their babies; and created new songs as a group “reflecting aspects of motherhood” (Fancourt 2018, p. 119). In the play workshops, the mothers engaged in sensory play with their babies; did arts and crafts; and played simple games together. The control group received no workshops or intervention above their usual care for 10 weeks.

Mothers completed the EDPS at baseline, week six and week ten, with the results suggesting that the singing group had a significantly faster reduction in their symptoms compared to the playgroup and the control group, with this improvement equating to a 35% decrease in

depressive symptoms during the initial six-week period, at which point 65% of the singing group no longer met the EDPS ≥ 13 criteria for more severe depression. By week 10, the decrease in symptoms of postnatal depression had extended to 40% and 73% of the singing group no longer had an EDPS ≥ 13 . The authors concluded that a 10-week programme of singing workshops could help reduce recovery time from symptoms of postnatal depression. EDPS score decreased significantly

Study 7: Perkins (2018)

The study aimed to explore how a group singing programme that was part of a three-arm randomised controlled trial facilitated recovery from the symptoms of postnatal depression using a qualitative analysis of the experiences of mothers involved in the singing group and comparisons with qualitative data from mothers in the playgroup. Women were recruited from both singing and playgroups to take part in a series of focus groups, with the discussion points being participants' experiences of the intervention and new motherhood. Following an inductive thematic analysis, four overarching themes were identified that covered both the play and singing groups: activity mechanisms; psycho-emotional mechanisms; social mechanisms; and environmental mechanisms, with 13 sub-themes identified for singing and 9 for play. Whilst both groups reported benefits from the respective activities, several additional benefits were reported by the participants of the singing group in comparison to the playgroup including a sense of immersion, the opportunity to create time for themselves and experience relief from the worries of new motherhood. An enhanced mother-infant bond was also reported as a result of singing.

The research identified five features of the intervention that proved effective and contributed to enhanced wellbeing, three of which - creative experience, immersive 'me time' and facilitating achievement and identity - could be seen as being exclusively for the mother, and two others - calming baby and enhancing mother-infant bond - as having an impact on the baby also. Highlighted as a significant finding was the ability to sing to create an immersive environment in which the women could take time out from their role as mothers and feel nourished and nurtured. Another feature identified was a sense of achievement and accomplishment having learnt new songs and explored music from other cultures. Also of note

is the way that the creative material informed the social identity of the participants with 'the songs becoming the group' and feeding into a sense of bonding and social cohesion as they were all engaged in a common purpose and working towards a shared goal; an outcome that was not demonstrated to the same effect in the creative play control group.

Study 8: Perry (2008)

A qualitative study in which an eight-week programme of creative arts activities was delivered to women experiencing mild to moderate postnatal depression or anxiety. The aims were reported to be (1) provide a supportive, relaxed and creative environment for women experiencing postnatal depression/anxiety; (2) raise people's self-esteem and confidence by using the arts; (3) create a space for women feeling excluded and isolated. Participants were mothers who had children under two years old. The programme was developed in collaboration with a specialist health visitor for maternal mental health and an arts for health officer at a Healthy Living Centre in Cheshire, UK. The participants were women who did not meet the criteria for group therapy, but that health visitors felt would benefit from support, and were able to be referred by any health professional. Data was collected in the form of semi-structured interviews with participants, but also included other stakeholders involved in coordinating, delivering, or referring into the programme. Interviews were carried out once on completion of the programme, and again six months later. It was reported that data analysis was carried out using a grounded theory approach to thematic analysis. Although themes were not explicitly stated, some of the findings reported included the creation of a safe and supportive space; improvements in confidence and self-esteem; the value in taking the finished artistic product home; and the importance of creche provision.

Highlighted in the report was that the boost in confidence and self-esteem had not been maintained once the intervention had finished, with many women expressing six months post-intervention that they did not feel any different from when they started and that the project had not served to reduce feelings of isolation in the long term. Some participants suggested that this was due to the lack of 'de-briefing' offered at the end of the programme, alongside the fact that facilitators had not encouraged women to make connections or plans. However, participants are described as articulating that they were able to utilise the increased confidence gained in other situations – such as going out more frequently with their children,

or attending other groups – demonstrating an impact beyond the confines of the specific project or individual participants. For some participants, their increased self-esteem and self-confidence were attributed to time spent with others experiencing similar life events and difficulties, whereas others felt increased self-esteem and confidence was as a result of trying a new activity. Emerging from this piece was a narrative around the benefits of active engagement in creative activity and also the difference between solo and group activity. The lack of continued impact in the long term also raised questions about the effectiveness of brief interventions and would suggest that it would be worthwhile considering legacy in the design of a similar research study.

Study 9: Wulff (2020)

A quantitative study that used a randomised controlled trial design to assess whether prenatal music and singing intervention could improve maternal well-being and mother-infant bonding. The participants were 172 healthy pregnant women aged between 18-42 years, with no comorbidities or pregnancy risks, recruited at a gynaecology and obstetrics department in a university hospital in Germany. However, complete data was only elicited from 146 women, as some did not participate in the second round of questionnaires. Participants were randomly allocated to one of three groups: music, singing, or control. The music group participated in the intervention led by the facilitator once, whereas the singing group participated took part between two and four times.

Participants in the music group were invited to join one 30-minute music session with up to three other women in which they practised relaxation through passive music listening and received instructions on how to listen to relax to music at home. Participants were told that the goal of the session was “to consciously take time to listen to the music and to try to relax while listening” (Wulff 2020, p. 73). They were then asked to continue to do this at home in their own time for 10-15 minutes each day. Although a CD was provided of calm, classical music without lyrics, the participants were able to listen to any other music they found relaxing. The singing group attended approximately two sessions with up to seven other women in which they were taught children’s songs and lullabies by a music therapist, accompanied by live guitar music. Participants were told that the goal of the intervention was to “sing for the own relaxation and interact with the unborn foetus” (Wulff 2020, p. 73). Following the session,

participants were asked to continue this in their own homes singing or humming children's songs and lullabies for 10-15 minutes a day until they gave birth.

The study adopted a range of validated scales to assess the impact of the intervention: State-Trait Anxiety Inventory (STAI); visual analogue scale (VAS): a 10 cm line that asked women to identify how close they felt to their baby on a scale of "no closeness to baby" to "maximum closeness to baby"; Maternal Antenatal Attachment Scale (MAAS) that measures two dimensions of attachment: intensity or time spent in attachment mode and quality of attachment; General Self Efficacy Scale (Allgemeine Selbstwirksamkeit Kurzsкала, ASKU); Edinburgh Postnatal Depression Scale (EPDS) that can also be administered during pregnancy as a screening for depressive symptoms; and a Self-Assessment Manikin (SAM) in which participants were asked to rate their affective state with a score between zero and five on three dimensions: valence ("excited" to "calm"); arousal ("pleasant" to "unpleasant"); and dominance ("dependent" to "independent"). Saliva samples were also obtained to measure levels of cortisol and oxytocin.

The study found positive effects of active singing and passive music listening on salivary cortisol and oxytocin. Short term effects were also found with the perceived closeness to the unborn child, as measured by the visual analogue scale (VAS) and self-efficacy. There was a significant improvement over time regarding perceived closeness (VAS) and self-efficacy (ASKU), in the intervention group compared to the control group. No association was found for postnatal depression, as measured by EDPS, however, the women in the study were not actively recruited because of symptoms of postnatal depression, so the use of this scale may have not been especially applicable for this particular cohort. Overall, the results suggested a positive impact of both active singing and passive music listening on maternal wellbeing, perceived closeness to baby and self-efficacy, with a larger positive effect in the active singing intervention group.

Table 7: Included studies

First author (date) Country	Study design	Sample size	Age (mean)	Maternal stage	Art form	Duration (frequency)	Maternal outcomes measured	Scales used	Data collected	Control group
Carolan (2012) <i>Ireland</i>	Qualitative	6	29.7	Pregnancy	Lullaby singing	4 weeks	Emotional response to lullaby singing	None	Semi-structured interviews	No
Demecs (2011) <i>Australia</i>	Qualitative	7	32	Pregnancy	Singing; dancing; storytelling; weaving	2 months (6 x 2-hour sessions)	Holistic wellbeing	None	Participant diaries / Semi-structured interviews / Field notes / Questionnaire about programme structure / Social demographic data	No
Ettenberger (2017) <i>Columbia</i>	Mixed methods	33	25.9	Postpartum	Music therapy	Not reported (Twice weekly)	Anxiety/bonding	State Trait Anxiety Index (STAI) / Mother Infant Bonding Scale (MIBS)	STAI and MIBS (pre / post) / Semi-structured interviews / Questionnaire	Yes
Ettenberger (2018) <i>Columbia</i>	Mixed methods	15	24.6	Postpartum	Music therapy/song writing	Not reported (4-6 sessions)	Bonding / depression / anxiety / mental wellbeing	Mother-Infant Bonding Scale (MIBS) / Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS) / Hospital Anxiety Depression Scale (HADS)	MIBS, SWEMWBS and HADS (pre / mid / post) / Semi-structured interviews / Information about music likes and dislikes	No
Fancourt (2017) <i>UK</i>	Quantitative	391	31.8	Postpartum	Singing	Not reported	Symptoms of postnatal depression / wellbeing / bonding / singing to baby	Edinburgh Postnatal Depression Scale (EDPS) / Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS) / Rosenberg self-esteem scale (RSE) / Mother-infant bond (Likert scale)	EDPS, SWEMWBS, RSE and mother-infant bond (pre / mid / post)	No

Fancourt (2018) <i>UK</i>	Quantitative	134	33.5	Postpartum	Group singing workshops	10 weeks (not reported)	Symptoms of postnatal depression	Edinburgh Postnatal Depression Scale (EDPS)	EDPS (pre / mid / post) / baseline demographic data	Yes
Perkins (2018) <i>UK</i>	Qualitative	134	33.5	Postpartum	Group singing	10 weeks (not reported)	Recovery from postnatal depression	None	Focus groups	Yes
Perry (2008) <i>UK</i>	Qualitative	9	No data	Postpartum	Creative writing (poetry) / card making / collages / ceramics / music	Not reported (8 x 1.5 hour sessions)	Recovery from postnatal depression/anxiety/self-esteem and self-confidence	None	Semi-structured interviews	
Wulff (2020) <i>Germany</i>	Quantitative	172	34.03	Pregnancy	Music and singing	Variable (Daily x 10-15 minutes)	Maternal wellbeing/mother-infant bonding	Maternal Antenatal Attachment Scale (MAAS) / General Self-Efficacy Scale (Allgemeine Selbstwirksamkeit Kurzsкала, ASKU) / Edinburgh Postnatal Depression Scale (EPDS) / State Trait Anxiety Inventory (STAI) / Saliva samples for cortisol, alpha-amylase and oxytocin detection / Self-assessment manikin (SAM): emotional state / Visual analogue scale (VAS): perceived closeness to baby		Yes

Meta-synthesis

As all of the studies had utilised a thematic approach to analysis, this was also the method used to synthesise the findings and qualitative data. Although qualitative data was reported in very different ways, and in varying degrees of detail, the data was analysed, resulting in three overarching themes: *Social benefits* – incorporating the sub-themes *community/peer support* and *time out for mothers*; *Emotional benefits* – incorporating the sub-themes *fun and enjoyment, relaxation and calm*, and *relief from worries and anxieties*; and *Psychological benefits* – incorporating the sub-themes *skills for motherhood, overcoming challenges/aiding transition*, and *bond with baby*.

Social benefits

Community and peer support

The theme of *community and peer support* was consistent across all studies except for two in which parents participated in music therapy either individually or with their partner (Ettenberger 2017; Ettenberger 2018). The thematic analysis within the studies themselves identified the themes “*seeking support*” and “*becoming connected*” (Demecs 2011); “*reducing feelings of isolation*” (Perry 2008); and “*singing as part of a group*” (Perkins 2018).

“The real reason I came along was to benefit from other people’s experiences” (Demecs 2011, p.116).

The quote above shows that whilst peer support was an outcome, it was also a motivator. Women used the interventions as an opportunity to interact with other mothers and share their experiences of motherhood (Carolan 2012; Demecs 2011; Perkins 2018; Perry 2008). Learning from other mothers’ stories enabled women to better situate their own experiences within the wider context of maternal experience. This was particularly evident when this component was built into the intervention itself and women were given space and opportunity to voice their narratives through “*storytelling*” (Demecs 2011).

Women also valued being in a group with other mothers experiencing similar mental health difficulties (Perry 2008, p. 43). In many cases, the act of engaging in creative activity enabled them to be “*more open towards each other*” (Demecs 2011, p.116), encouraged group working

and social interaction (Perry 2008), and that meeting regularly and taking part in a creative activity together created “social cohesion” (Perkins 2018, p.7).

Making, singing, moving and creating together all contributed to group bonding and cohesion. Song and dance can break down some of the awkwardness that can abound in groups of unfamiliar people, as demonstrated in the quote below:

“It brought everyone together a bit more ... the music thing brought everyone closer” (Perry 2008, p.42).

The “shared space” (Demecs 2011, p.119) created during the intervention also gave women a sense of belonging that strengthened their individual feelings of confidence and self-awareness. The sense of community and social support also fed into the psychological benefit, discussed below, of feeling more able to overcome the challenges that women faced during the “period of transition” (Demecs 2011, p. 116) that women experience when they become mothers.

Time out for mothers

Connecting with the self (Demecs 2011); *Distraction: outside of routine* (Ettenberger 2018); and *Singing time for mums* and *Singing as immersive* (Perkins 2018) all captured the idea of the interventions as presenting an opportunity for women to do something for themselves outside of the usual parental routine. One participant, in a singing intervention, described how everything else she did outside of the singing sessions seemed to be for the baby:

“Everything is for the baby. You go to a class and it’s always for the baby ... This [singing] is also good for the baby, but at the same time, it’s something for us as well” (Perkins 2018, p.6)

What she is expressing is that not only is she responsible for all of the baby’s care needs, but when they do get out of the house to take part in a class, that is also aimed at the baby’s needs and development. She appears to stress the value of having something that is aimed at the wellbeing of mothers, whilst indirectly benefiting the babies, who will listen to the singing:

Pregnancy is a pivotal rite of passage for women, that has different social and cultural rituals attached, in which women transition to the role of mother. Women valued having a dedicated place in which they could “indulge in being pregnant” (Demecs 2011, p.116), and relaxing into an immersive activity created a sense of “me time” (Perkins 2018, p.9).

Consciously taking myself to a space that was dedicated to my pregnancy ... get in touch with that side of myself...” (Demecs 2011, p.118).

The quote above describes how the participant valued being able to have a *dedicated space* for her pregnancy, in which she could connect and get in touch with her maternal instincts. Creating this space for women within an intervention enables them to better enjoy the transitional phase of pregnancy. It can also give them time and space to connect to their new and evolving identity as a mother.

Emotional benefits

Fun/enjoyment

Three studies highlighted enjoyment or pleasure as being important themes within their analysis: *Singing feels good* (Perkins 2018); *Enjoying music therapy: feeling good; beautiful* (Ettenberger 2017); and *Pleasant experience: satisfying; nice; fun* (Ettenberger 2018), with evidence in the discussion of data of others.

“It was very uplifting. I leave here a lot happier than when I started”
(Perkins 2018, p.6).

The participant in the quote above describes the *uplifting* effect of taking part in a singing intervention by identifying a greater feeling of happiness at the end compared to how she felt at the beginning. Demecs (2011) also described how moving to music was seen to create “positive emotions” and be an “uplifting exercise” (p.117), with dancing together facilitating a sense of fun, as women were observed to become more playful with one another (p.116). To

be uplifted could also be viewed as feeling lighter, more hopeful or relieved from one's worries, a positive emotional impact that links to another key finding from the studies.

Relief from worries and anxieties

Although similar to the above sub-theme, *Time out for mothers*, this theme captures a different aspect of wellbeing, as it relates to the impact on mothers' fears and concerns. Carolan (2012) calls this theme *Beyond words: music and the articulation of deep emotion*, describing the impact as *addressing and resolving concerns* and creating feelings of *safety and security*. Ettenberger terms this *Distraction: forgetting everything* (2017) and *Distraction: forgetting worries* (2018). The interventions "allay[ed] anxiety" (Carolan 2012, p.323) and offered relief from the "practical and emotional concerns of early motherhood" (Perkins 2018, p.9), as women forgot "concerns and worries for a while" (Ettenberger 2018, p.46). Perkins (2018) posited that the emotional and social connection with the music created a relaxing environment, bringing about relief from symptoms of postnatal depression (p.10). The *beyond words* ability of music, suggested by Carolan (2012) also allowed mothers to face their "subconscious fears and come to some resolution" (p.323).

One participant identified that one of her worries as a mother was fear about things not being *okay*. She identified that, by taking part in the singing intervention, she was able to connect to her baby and her internal coping resources to *overcome* her fears:

"It was relaxing... I suppose what I had to overcome was that fear that if things weren't okay, that I'd be able to deal with it ... [The singing] connected me to him ... it didn't matter how I was going to cope with it" (Carolan 2021, p.323)

Relaxation and calm

As identified in the discussion above, being relieved of worries and fear also helped mothers feel more relaxed, and this was a consistent theme found in the data and discussion across all studies. Carolan (2012) described *A balm for the soul: relaxing and peaceful*, Ettenberger *Parents can relax* (2017) and *Relaxation: calmness and peace* (2018), whereas Perry (2008) and Perkins (2018) highlighted the importance of the intervention setting as being *A supportive and*

relaxed environment (Perry 2008) and *Calm and inclusive singing environment* (Perkins 2018). Women engaging in creativity activity found “an inner peace and calm” when making a craft item for their baby (Demecs 2011, p.119) and the ability to become relaxed and “absorbed” (Perkins 2018, p.10) was seen as a key part of the impact on emotional wellbeing.

Singing and music were most commonly cited as mechanisms through which mothers felt the relaxation, with the two quotes below taken from participants within singing interventions. In the first quote, the participant is describing an almost instantaneous state of relaxation from the moment she starts singing, with the second quote describing a similar *switching off*, perhaps akin to a light switch, that enables her to *turn off* her worries and concerns during the period that she is engaged in singing.

“As soon as I started singing, it seemed to relax me” (Perkins 2018, p.6).

“It’s an opportunity to just switch off and think about the music”
(Carolan, p.324).

The *switching off* discussed above describes the participant’s conscious acknowledgement of how music and singing contribute to relaxation. There was also evidence that, as an activity, dancing was observed to be “especially useful” in helping women to relax, as they moved their bodies to music (Demecs 2011, p.116).

Psychological benefits

Skills for motherhood

A common outcome across studies was the finding that participants learnt or discovered new skills or “tools” (Perkins 2018) that they could employ or call upon outside of the study environment. The study authors articulated these themes in different ways: Demecs (2011) talked about *Taking the balance home*, which related to the after-effects of the intervention and the “transfer” of the “positive emotional and spiritual experience into their home environment” (p.119).

It is said that mothers are at the heart of every home. A participant in a creative arts programme was able to identify that the *happiness* she felt as a result of taking part in the intervention followed her home. Because her emotional state was improved, this had a positive impact on the rest of her household, and she recognised that by *feeling good* herself, this spread to her immediate family:

“I came home you know feeling happy ... if the mother of the house is feeling good then everyone else feels good” (Demecs 2011, p.118)

It was also found, especially concerning singing, that women gained *new singing skills* (Perkins 2018) and carried on with this practise independently at home: *Singing at home* (Perkins 2018); *Empowerment: ways to use music at home* (Ettenberger 2018). Participants enjoyed learning new activities that they could do alone or with their babies. The *tool* of singing was used by parents in the home environment as an activity (Demecs 2012; Perkins 2018), but also at times when they were looking to soothe or calm their baby. Being able to utilise this skill with positive results increased their confidence and resulted in a sense of empowerment (Carolan 2012; Demecs 2011; Ettenberger 2017; Ettenberger 2018; Perkins 2018).

A concrete example of how skill acquisition assisted mothers in feeling empowered to use singing as a tool is demonstrated in the quote below. The mother describes being in hospital with her daughter, who was distressed, and how she used one of the lullabies learnt during the singing intervention. She identifies the impact of having something she may not have had were it not for the intervention:

“This weekend we were back in hospital ... and she was going mental, and I found myself singing the [folk lullaby] song and it just gave me something that I might not have ... it made a difference to have that” (Perkins 2018, p.5).

Overcoming challenges/aiding transition

Related to the above sub-theme, women found that one of the impacts of participation was an ability to better overcome or face the challenges that they faced as new mothers. This

impact was brought about in part by the accumulative effect of the aforementioned emotional and social benefits such as peer support and an ability to better manage worries and anxieties, but also as a result of increased self-esteem (Perry 2008).

One example of the wider impact increased self-esteem can have on a participant's ongoing wellbeing is given by a participant who took part in a creative arts programme. She describes how going to the intervention group gave her a *push* that made her feel more confident and able to attend other mother and baby groups:

“I've been able to go to lots of other groups ... I don't think I would have gone to any of that if Time for Me [the intervention] hadn't given me that push” (Perry 2008, p.41).

The study authors also reported other mechanisms at play that supported women's abilities to cope and transition to their role as new mothers. Perkins (2018) suggested that singing supported a “reconnection with a sense of self and purpose that had been lost in the transition to pregnancy” (p.7), whilst Demecs (2011) discussed how peer support and discussion enabled women to prepare for motherhood by facilitating a sense of *Being balanced in pregnancy* and *Being ready for the upcoming birth*, with the emotional balance participants felt from the activities affecting how they prepared for and “anticipated” labour and birth (Demecs 2011, p.118).

Giving birth is part of the rite of passage to motherhood, but one that can come with many fears and concerns. Participants in a creative arts programme identified how important it felt to them to be *ready*, emotionally, psychologically and physically, for the birth. Having activities that prepared them for labour and birth were seen to be especially valuable at that juncture in their lives:

When it boils down to labour, it is raw and emotional. It is important to be ready and in balance [Participant 1] (Demecs 2011, p.118).

The mind is important in birth ... they [the activities] helped to quiet the mind, prepared you emotionally” [Participant 2] (Demecs 2011, p.118).

Bond with baby

Except for one study (Perry 2008) where there was no evidence of this as a finding within the data or discussion, all of the studies identified a significant outcome as being the improvement of the mother-infant bond. This was especially evident in studies where singing or music had been used as a technique with Perkins (2018) identifying two key themes as *Singing supports bonding* and *Singing impact on babies (calming)* and Ettenberger recognising *Bonding: feeling connected* (Ettenberger 2017) and *Bonding: connectedness; expressing emotions; relationships; long term bond* (Ettenberger 2018).

Singing was particularly helpful in facilitating a bond with mothers stating that their baby responded to the sounds of their voice (Demecs 2011; Ettenberger 2018; Perkins 2018) and that their relationship with their child “evolved” as they continued to sing and get to know them better (Ettenberger 2017, p.221). Mothers expressed that they felt more connected during music therapy and were able to express themselves through song (Ettenberger 2018, p.46) and were able to use songs to “calm and soothe” their child (Perkins 2018, p.8). Carolan (2012) also acknowledged the mother-infant relationship and responsiveness within the theme of *Music and the facilitation of infant development*.

In the two quotes below, participants discuss their feelings when the baby responds to their singing. In the first quote, the mother describes her baby experiencing joy and pleasure as a result of her singing to him. Whilst she identifies that singing doesn’t make him sleepy (often cited as a positive impact in the studies where lullabies have been used), she can recognise that listening to her voice creates a state for her and her baby to interact and experience pleasure and connection together as he responds to her:

“He loves it when I sing ... he responds to me ... he doesn’t necessarily come over all sleepy” (Carolan 2012, p.324).

The feeling described by the first participant is echoed in the next quote. There is a sense of the experienced being heightened because it is shared by other mothers and their babies. The feedback from the interpersonal experience between the mother and their unborn child and the shared group experience also feeds into the activity, with the special nature of it coming through the singing itself:

“I was talking to the others about it, we were all feeling that our babies are responding, and I think that was coming across when we were singing, it seemed to be special for a lot of us and you could feel that in the group” (Demecs 2012, p.117)

In a creative arts programme where women were encouraged to take part in a weaving project to make something for their unborn child (Demecs 2012), it was stated that this act helped them to feel more connected to them. One participant described how the act of weaving brought them closer to their baby:

“While I was weaving, I was thinking about the baby because the weaving was for the baby ... it gave me a nice feeling” (Demecs 2012, p.117).

Making something for the baby before they are born allows mothers to visualise and prepare for the baby before they are physically in the world, which can strengthen their feelings of attachment and enhance the mother-infant bond once their child is born.

Discussion

This systematic review aimed to examine the existing evidence base for arts-based interventions on maternal health and wellbeing outcomes. A total of nine papers met the criteria, including qualitative, quantitative and mixed methods studies. Across the included studies, there were several common outcomes and themes identified within the analysis. These were i) positive impact upon maternal self-esteem and increased confidence; ii) a sense that interventions created ‘time for me’ for the participants and contributed towards maternal instinct; iii) the reduction of symptoms of postnatal depression alongside improved mother-

infant bonding; iv) interventions facilitating social support between peers, including the sharing of knowledge and experience.

Strengths of included studies

All studies reported positive results and suggested there was scope for further research. There was good evidence to suggest that arts-based interventions can reduce symptoms of postnatal depression (Fancourt 2017; Fancourt 2018; Perkins 2018) and enhance maternal wellbeing, mother-infant bond and self-efficacy (Fancourt 2017; Fancourt 2018; Perkins 2018; Wulff 2020). Participants' voices and views were represented well within the qualitative studies, particularly in studies where direct quotes were used to illustrate points and discuss themes (Carolan 2011; Demecs 2012; Perkins 2018). However, several studies reported thematic analysis without the inclusion of participant data (Ettenberger 2017; Ettenberger 2018) or a clear description of themes (Perry 2008). User involvement in the form of co-design or pilot studies was also noticeably lacking as identified in the quality assessment. Of the six studies reviewed, only one (Demecs 2012) had involved participants in the research process by asking them to keep a diary which, as well as informing interview topics at the end of the programme, allowed researchers to understand the women's experience of participation, therefore allowing data to be triangulated.

Limitations of included studies

The studies used a range of methodological approaches and collected a range of different types of data. It was, therefore, difficult to measure the impact between studies, compare outcomes, or combine results to draw reliable conclusions. Outcomes were let down by small sample sizes and lack of diversity within recruited participants, meaning that many samples were not always necessarily representative of the wider population. Additionally, little consideration was given to continued impact post-intervention, raising questions about the long-term effectiveness of short-term interventions. In the majority of studies, the opportunity to look at how creative practice might help women to engage with the maternal experience by reflecting through arts or creating based on their experience has been missed. The authors offered a limited discussion of the mechanisms within the intervention that may have resulted in the reported outcomes. Only one paper (Perkins 2018) carried out a comparative study and

discussed the differences between active participation in the arts-based intervention and another form of social activity.

Outcomes of included studies

Findings from the quantitative studies indicate that arts-based interventions have a positive impact on symptoms of postnatal depression. Analysis suggested that not only did the interventions reduce symptoms overall, but women with postnatal depression might experience a faster recovery compared to if they receive standard care.

Findings from the qualitative studies provided a deeper understanding of some of the mechanisms at play during the interventions and how delivery and intervention content might influence outcomes. Several papers cited findings that engagement in arts-based or creative activity had been a positive experience for women as they had explored other cultures, learnt new skills (or trying something new. There were also psychological benefits as these positive experiences led to a sense of achievement and accomplishment, resulting in increased self-esteem and confidence. Furthermore, being able to perform their new skills such as singing to the baby at home was seen by participants to be empowering (Ettenberger 2018; Perkins 2018). It was also noted that the act of creating something new such as an object for their unborn child (Demecs 2012) or composing songs about motherhood (Perkins 2018) was a rewarding activity. However, although participants reported feeling a “significant boost” to their confidence and self-esteem, it was not always evident that these feelings were maintained post-intervention with reports that feelings of isolation returned when women were no longer engaged in a programme (Perry 2008).

There was insufficient evidence to ascertain whether the type of art practice delivered during the intervention made a difference to maternal outcomes. However, the results would suggest that singing especially can have a positive impact on the mother-infant bond (Demecs 2011; Ettenberger 2017; Ettenberger 2018; Perkins 2018), Whilst this is an important consideration, given the strong correlation between mother-infant bond and postnatal depression, it was difficult in some studies where infants were part of the research environment to distinguish between outcomes for the parents and outcomes for the infants. Still, whilst singing – a low cost and easily-resourced activity – is an understandable choice, other factors need to be

considered: lullabies typically have soothing melodies, a tempo similar to the rate of the human heartbeat and meaningful lyrics. These factors may also have contributed to the positive experience of the women. Furthermore, lullabies are a universal cultural practice for soothing babies and promoting sleep. This may have influenced the women's subconscious understanding of the benefits of the intervention. Without the use of a control group, it is therefore hard to distinguish whether it was the lullabies themselves or the act of singing that brought about the results. Addressing these blurred lines is, therefore, a challenge and an important consideration for future research in this area.

A more general, collective impact identified in the studies was how arts-based interventions could impact social cohesion or a sense of belonging. Another key feature of the interventions described in the studies was the opportunity for participants to share knowledge and experience with other mothers. Being able to share stories and experiences, engage in a shared activity or work towards a common purpose facilitated group cohesion and bonding. Examples were given of the creative activity informing the collective social identity of the participants and of increased self-esteem and self-confidence being attributed to time spent with others experiencing similar life events and difficulties (Demecs 2012; Perkins 2018; Perry 2008).

Recommendations and Implications

Given that the current evidence base is limited by small samples and lack of diversity, consideration should be given to participant demographics during the recruitment stage to obtain a diverse sample. In addition, attention should be paid to the clarity of inclusion and exclusion criteria to control for confounding factors. Factors to consider would be first-time mothers; social and cultural background; education; existing levels of cultural engagement and social activity. Recruitment methods such as snowball sampling, advertising through social media and specific community groups could be utilised to reach participants representative of the population. There is also an argument that excluding those already "on board" with creative engagement as a worthwhile activity would generate a less biased and more representative sample.

There is also an opportunity for future interventions to consider what role creative practice plays on emotional, social and psychological wellbeing outcomes. Existing research into singing

and postnatal depression has already identified five possible features that proved effective and contributed to enhanced wellbeing - creative experience, immersive 'me time', facilitating achievement and identity, calming baby and enhancing mother-infant bond (Perkins 2018). Whilst not discussed as outcomes specific to the mode of the intervention itself, time for me and empowerment were recurring themes in the outcomes of other studies, suggesting that there may be a link between these and creative practice. In addition, whilst there is a developing understanding of the impact of singing and music on maternal wellbeing, there is a dearth of empirical evidence relating to other forms of creative practice such as dance, movement, journaling or artistic expression. Future comparative studies that evaluate art from specific mechanisms and their related outcomes would add considerably to the existing evidence base.

Finally, it was unclear to what extent improvements in wellbeing were maintained post-intervention. Firstly, it would be of benefit if studies could include a post-intervention data collection point in their schedule. Secondly, it might also be of value for intervention delivery to consider how women could be provided with self-directed or *top-up* sessions to maintain wellbeing on a longer-term basis. The lack of user involvement in the studies reviewed suggests that there is a gap for an intervention designed alongside mothers. This would be particularly important when taking into consideration intervention practicalities and legacy concerns such as duration and support post-intervention.

Chapter summary

This systematic review is the first to consider the impact of arts participation on psychosocial outcomes of maternal wellbeing. The results suggest that there is a role for arts-based interventions to be used (i) as social support for women during the transition to motherhood; (ii) to facilitate recovery from diagnosed mental disorders such as postnatal depression; (iii) or to prevent stress, anxiety and isolation. Due to the scarcity of evidence on the impact of dance or movement on a maternal population, there is a particular opportunity to use some of the findings of this review to inform the development of a dance-based intervention that can be evaluated for its impact upon maternal wellbeing.

CHAPTER FIVE

Co-designing dance for maternal wellbeing

Chapter Overview

The preceding chapters have examined and discussed the existing evidence base for arts-based interventions that impact maternal health and wellbeing outcomes. The literature review in Chapter Two identified a gap in the literature discussing the impact of participatory dance practice on a maternal population. The systematic review that followed in Chapter Four then further interrogated the evidence base by reporting a meta synthesis of studies that utilised arts-based interventions with mothers in the perinatal period. Again, there was a noticeable lack of interventions employing dance as the main creative or artistic practice. It was further noted in the previous chapter that there is relatively little research utilising co-production or co-design when developing arts-based interventions with new mothers. Therefore, a precedent has been established to support the creation of a dance-based intervention for and with a maternal population.

The second half of this thesis presents the second empirical study that was carried out. It builds upon the findings from both the literature review and systematic review by discussing the approach taken to developing and designing a dance-based intervention that could be examined for its impact upon maternal wellbeing. The purpose of this chapter is to explain the methods and procedure that made up the co-design process. This chapter begins by re-introducing the aims, objectives and the overarching research question and explaining ethics, recruitment and participant sample. The section that follows discusses the importance of adopting specific co-design mindsets (McKercher 2020) and gives concrete examples of how these mindsets were applied in practice throughout the process. The second half of the chapter describes the intervention procedure including data collection and data analysis.

Methods

Aims

The aims of the research were previously shared in Chapter One. The aims relevant to this phase of the research are:

- 2) (a) co-design a dance-based intervention for use with new mothers
- 2) (b) identify the component features of creative dance that contribute to enhanced maternal outcomes
- 3) Investigate the impact of a dance-based intervention on maternal physical, social/emotional and cognitive outcomes.

Research Questions

The overarching research question was:

What contribution might dance make to enhancing maternal wellbeing?

Ethics

The research received ethical approval from the Health and Social Care College Research Committee at the University of Derby. Prior to giving their consent to take part in the study, participants were provided with a participant information sheet and invited to attend a pre-consent meeting, at which they had an opportunity to meet the research team and ask questions about the research. Due to the Coronavirus pandemic restrictions necessitating the need for the research to be carried out online, additional measures were put in place to ensure the safety of participants. Initially, research was undertaken into the most appropriate video conference platform to use. It was identified that Zoom offered the most functionality for the delivery of focus groups and practical dance sessions. Following this, an internal Data Protection Impact Assessment (DPIA) and a health and safety risk assessment were carried out to examine the potential risks to participants and ensure that all appropriate measures were in place. In line with the research methodology, these measures were communicated to participants in the form of infographics and discussed verbally at the start of the project, as part of the *House Rules* (see appendix).

Participants

Participants were recruited through social media, with videos and posters posted on Twitter, Facebook and LinkedIn. National and regional charities and organisations working specially with mothers were contacted and asked to share details of the opportunity. They were first asked to register their interest and eligibility was checked against the inclusion criteria. To be included in the study, participants had to be a first-time mother in the postnatal period (i) with no previous children; (ii) over the age of 18; and (iii) have had their six week postnatal check-up and able to demonstrate physical activity readiness. Where the birth had involved medical intervention (such as caesarean), then a GP or health professional must have agreed that the individual is able to participate in physical activity. Participants were not eligible if they were (i) mothers with more than one child; (ii) under the age of 18; (iii) anyone who has a significant physical health condition that may be worsened by participation in movement-based activity; and (iv) first time mothers for whom the pregnancy, labour or birth was non-viable. The research design made provision for the first 15-20 women who responded to take part in the co-design workshops, with those not included sent the Daily Dances resource and invited to complete a voluntary anonymous questionnaire to complete evaluating their opinion of the resources.

Co-design ethos

This study followed a process of co-design. This methodology was previously discussed in Chapter Three, with the introduction of McKercher's six mindsets for co-design: (i) Elevating lived experience; (ii) Being in the grey; (iii) Valuing many perspectives; (iv) Curiosity; (v) Hospitality; (vi) Learning through doing.

Elevating lived experience

In co-designed research, when lived experience is elevated, the contributions of people with lived experience are valued and these individuals are seen as "trustworthy and confident interpreters of their own lives" (McKercher 2020, p.46). In this respect, co-design is "person-centred" in its approach, as it is the experiences of the end users that are being used as the basis for the design (Burkett 2012, p.6). This approach also acts to renegotiate some of the traditional power dynamics within research or service design, as recognising that those with lived experience have "vital contributions to make" results in a sharing of power (Slay and

Stephens 2013, p.3). In practice, elevating lived experiences involves listening to the thoughts, feelings, experiences and truths of people with lived experience and understanding “what matters” to them (McKercher 2020, p.49). Listening takes time. Whilst the focus groups and practical sessions in the Moving through Motherhood study had scheduled start and end times and a question schedule, there were times when it was not appropriate to cut someone off or to cut a session short, without everyone having had an opportunity to share their experience. Elevating lived experience also requires researchers to “provide meaningful opportunities” (ibid.) for participants to contribute towards. McKercher suggests that meaningful opportunities are *valuable* to the people who are contributing their time: they should give options about how people can “engage and express themselves”; affirm individuals strengths, whilst being sensitive to risk factors; and be “interesting and enjoyable” to take part in (2020, p.49-50). Communicating this in a way that is understood by participants is particularly important. In this study, all activities and questions were framed as invitations. Participants were free to respond, or not respond as they wished. Using a virtual platform meant that it was possible for responses to be put into the chat box, and participants were also invited to record their thoughts, questions, experiences and reflections on paper and to then share this as research artifacts.

Being in the grey

Being comfortable *in the grey* requires researchers and participants to acknowledge the complexity and uncertainty of the world we live in. McKercher describes being in the grey as “the ability to tolerate ambiguity” (2020, p.52). Ambiguity within a research process can feel uncomfortable, as the possible answers and solutions may not reveal themselves immediately. Just like listening, being in the grey also takes time; time to ask questions, reflect on the answers; and explore where these insights might take us. As a researcher, when we combine elevating lived experience with being in the grey, it reminds us not to force our preconceptions about design choices onto the group we are working with, but to allow time for ideas to evolve.

Valuing many perspectives

Burkett (2012) states “co-design processes are inclusive and draw on many perspectives, people, experts, disciplines and sectors ... it is important to draw on many perspectives, to challenge orthodoxies, to question assumptions” (Burkett 2012, p.6). When practitioner-

researchers value and take into account multiple perspectives, they are more likely to generate “multidimensional insights” (McKercher 2020, p.59). To value different perspectives, researchers or facilitators must also act to *uncover* and understand what is going on “beyond the surface” (McKercher 2020, p.57-59). This again requires listening and asking the right questions in order to understand how individual’s feelings and beliefs might shape what they say and what they perceive as important. Inviting participants to explore their feelings and beliefs can be a risky strategy. To do so, it is important to create the right conditions such as giving time and space for feelings to be expressed and posing questions that allow for feelings and emotions to come to the surface. In the focus groups and workshops, this was done using check-ins and reflections, in which participants were invited to contribute a word, or a series of words to describe where they were at and how they were arriving at the session that day. In doing so, this provides a partial context for the responses they might give or the way in which they might interact: a tired mother who has not slept may find she is more easily irritated or less inclined to contribute.

Curiosity

Being curious allows researchers to practice better listening, tolerate uncertainty and be open to different possibilities and perspectives. Curiosity requires us to go “beyond the things and people that naturally interest us” (McKercher 2020, p.61) and be able to receive the ideas and feedback without judgement or bias. Researchers who are applying curiosity as a mindset to co-design will also “prob[e] knowledge and meaning” and “provok[e] reflections”, using a range of different mechanisms and materials in order to “elicit knowledge, meaning and emotions that are usually implicit or hidden in the action of people” (Zamenopoulos and Alexiou 2018, p.28). In the co-design phase of Moving through Motherhood, participants were asked to reflect and share their thoughts in a range of different ways: focus group discussions; breakout groups; virtual chat boxes; written or drawn reflections. These more open approaches to questioning and reflecting on experience allow for a broader range of responses, with potential for generating deeper meaning, compared to what might be elicited from structured or surface-level focus group questioning.

Hospitality

In essence, hospitality is about creating an enabling environment and the right conditions for people to feel welcome, valued and safe. When we create an enabling environment, our participants feel comfortable and, when they feel comfortable, they are able to make more meaningful contributions. McKercher suggests that, in order to lessen anxiety and increase connection, there are four dimensions of hospitality to consider: (1) You are appreciated; (2) You are supported; (3); You are welcome here; (4) Come as you are (McKercher 2020, p.67). Applying these principles within the context of this study was especially important. In the recruitment phase for the Moving through Motherhood co-design group, some mothers expressed concerns such as “I can’t take part in focus groups because of my baby... they’ll make too much noise ... they might distract other people ... I won’t be able to properly engage.” (Moving through Motherhood potential participant, during informal pre-consent conversation). The response to this was to say that this was an intervention for new mothers and sessions would be structured in such a way that women would be welcome to take breaks to feed their baby. Putting hospitality this into practice from the very beginning of the project meant responding with empathy, understanding and a complete lack of judgement when participants attended virtual pre-consent meetings in their pyjamas, or pausing during conversation to allow babies to vocalise

Learning through doing

Learning through doing is about testing and trying things out in their real-world context, with the relevant people, as opposed to simple talking about them in theoretical or hypothetical terms. McKercher suggests that applying learning through doing methods can “create energy and new momentum” (McKercher 2020, p.69). Learning through doing also requires holding onto any ideas we might have about how things should or could work *lightly* (McKercher 2020, p.73). To do this, we need to apply some of the previous principles of *being in the grey*; *valuing many perspectives*; and *curiosity*. In the context of the Moving through Motherhood study, this meant giving participants the opportunity to learn what it is like taking part in a dance intervention by taking part in one. Through this, they were able to consider what did or did not work and were able to reflect on the impact.

Underlying many of these mindsets is the principle of taking time and giving space. Miranda Tufnell describes this in the context of arts and health practice by saying:

...time, presence and trust lie at the heart of this work ... feeling moment by moment for sense of direction, for where communication can grow. It is delicate and challenging process requiring bodily empathy and every tool in an improviser's toolbox – and the utmost sensitivity to fears and vulnerabilities. Listening deeply ... yet keeping the fields of attention wide, gentle, spacious (Tufnell 2017, p.103)

Embodied awareness and intuitive, responsive practice is key to creating a safe and inclusive space in participatory dance practice. Tufnell articulates this by saying that being “reliable and steady is vital among those whose own world can feel very fluctuating and unstable” (Tufnell 2017, p.14). With this in mind, the conditions in the virtual space were carefully created to ensure that the virtual realm was held in as reliable and steady a way as possible: sessions were filmed from the same studio space each week; the space was well-lit and warm so that no discomfort was visible from the researcher; all resources were prepared and laid out within arm's reach so that contact through the camera was unbroken; and the session started on time, every time.

Live, but digital

The research project was originally planned in March 2020 and over the course of the Covid-19 pandemic. Therefore, although the intention was that sessions would take place in person, this was re-imagined when the country went into lockdown in March 2020 and Over the course of the project, a number of digital tools and methods were used to communicate with the participants, including (i) informal pre-consent meetings and live participant information videos on Facebook; (ii) a WhatsApp communications group; (iii) a private Facebook group that contained resources and information; and (iv) a Padlet that was used to communicate the evolving themes and ideas from the workshops and focus groups as the intervention took shape.

Setting the scene

In addition to traditional recruitment methods – participant information sheets and social media call-outs - the scene was set for participants in other ways that introduced a sense of

familiarity and embedded the ethos of hospitality mentioned in Chapter Seven. Two Facebook lives were streamed during the recruitment period in which the principal investigator (PI) discussed the research and the way in which participants could be involved [see Padlet section: *Participant Resources* for links to the videos on Facebook].

The Facebook live streams and pre-consent meetings for interested participants were all streamed from the same location: the PI's home dance studio, where the focus groups and workshops were also held during the co-design phase. Therefore, by the time participants joined the formal phase of the project, they were already familiar with the PI and the setting.

Creating comfort and community

Participants were invited to join a private Facebook group and WhatsApp communication group throughout at the beginning of the co-design phase. They were encouraged to use this space to introduce themselves and to share questions and thoughts along the way. Important files and resources such as the Participant Information Pack [see *Appendix* page 14] and the original Daily Dances [see *Appendix* page 19] were also accessible via the Facebook group.

In order to hold the space for participants and create a sense of comfort for participants, certain practices were employed during facilitation such as ensuring the session took place from the same space each week and allowing time for participants to log on and say hello to each other before the session began. These practices are further outlined in the practitioner perspective box: *Top tips for delivering online sessions*.

Continuing the conversation

Conversations continued in the WhatsApp group. Creative captures and word clouds created during the focus groups and workshops were shared on both platforms, with participants were invited to contribute their thoughts and comments on their experiences.

Once the final focus group had taken place, extracts from the thematic analysis were shared in the WhatsApp group and then subsequently on the Padlet platform. This enabled participants to see how their contributions were informing the design of the intervention, as well as to comment or provide feedback in real time.

Digital delivery: not without it's challenges

Dance practitioners are used to working with the live, un-mediated body. When working with a group in a studio setting, I can *feel* the energy in the room and get almost immediate non-verbal feedback from participants in response to exercises. At first, I found it difficult not having access to this information in the same way. Following the first virtual focus group, I reflected on the process in my practice journal:

After the session, one of the participants is a little shaken up and expressed that she struggled at the beginning – the music was too tinny, very loud, baby screaming, all too much. We discuss ways to make it easier – mute the sound, turn camera off and then come back.

I have reservations ... one of the reasons mums do this, or why dance is good for wellbeing is the social interaction – that is missed in the virtual space. It is challenging to facilitate virtually when cameras are being switched off or people are disappearing from the screen. I'm not sure this translates well for virtual delivery as its so difficult – things get lost. Group work, especially with a group not used to working together, is almost impossible.

Whilst I initially had serious reservations, these eased and over the course of the workshops that followed, I found new ways of eliciting information from my participants that I would usually be able to pick up without explicitly asking for it:

- I asked participants to show me thumbs up or down to aid decision making;
- Energy levels were assessed by participants using their hands to demonstrate low, medium, or high levels;
- The chat box was kept open so that participants could communicate or ask questions directly without speaking and interrupting the flow of an activity, which I was able to respond to in real time.

Intervention Procedure

Data collection took place over a three-week period. Participants attended an initial focus group, in which they were asked to discuss their understanding of wellbeing, pre- and post-motherhood. They were then invited to identify the challenges they face to maintaining wellbeing as a mother.

Following the first focus group, the participants attended a series of three practical dance workshops (full discussion of this procedure can be found in the following chapter, Chapter Six). A week after the final dance session, a second focus group was held in which participants discussed their experience of taking part and impact it had had on their perception of wellbeing. During this focus group, participants also discussed how the different components

of the workshops they had experience might translate into the final intervention design. Figure 1 shows the research schedule.

Figure 2: Research Schedule

MOVING THROUGH MOTHERHOOD Research Schedule				
15 JANUARY	19 JANUARY	20 JANUARY	22 JANUARY	26 JANUARY
Focus Group 1 10 am - 12:30 pm	Workshop 1 10 - 11:30 am	Workshop 2 10 - 11:30 am	Workshop 3 10 - 11:30 am	Focus Group 2 10 - 12:30 pm
<ul style="list-style-type: none"> Welcome and meet the team Zoom 101 Research aims What is maternal wellbeing? Measuring wellbeing 	<ul style="list-style-type: none"> Check in and warm up Get moving: line dance and party dances Movement games Intro to daily Dances Cool Down 	<ul style="list-style-type: none"> Check in and warm up Move together: salsa and musical theatre Taught dance sequence and whole group choreography Cool Down 	<ul style="list-style-type: none"> Check in and warm up Move together: contemporary dance sequence Break out groups: small group choreography Cool Down 	<ul style="list-style-type: none"> Welcome back and check in Feedback on Daily Dances Group reflection Feedback on wellbeing scales Intervention practicalities and logistics
indicates all or part of a session will be recorded. If at any point you do not want to be recorded, you can turn off your video.				

Focus groups

Focus Group One

The purpose of the first focus group was to set the scene for the process of co-design and introduced the participants to concepts that the research proposed to explore. In line with the co-design approach, the research questions and aims of the research were shared in order to educate and empower the participants to become co-researchers. The aims of the co-design phase of the research, shared with participants at the start of the study were to

- (i) identify a shared definition of maternal wellbeing;
- (ii) create a dance intervention to take forward for testing;
- (iii) document the process using creative methods.

Participants were first introduced to definitions of wellbeing (see Figure 1), and asked to identify

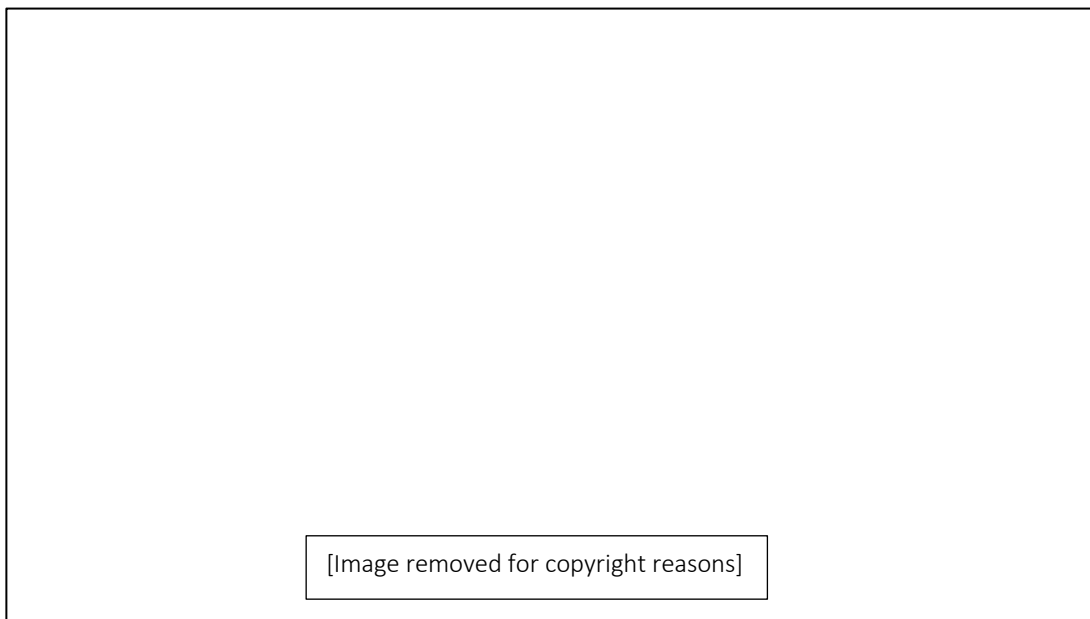
- What does wellbeing mean to you?

Before then being asked to consider

- How do these definitions fit in with your experience of being a mother?
- Are there any challenges to your wellbeing as a mother?
- What do you currently do to aid/enhance/improve your wellbeing?

Participants discussed these questions in two virtual breakout rooms before coming back together to feedback on their discussions. In addition to the sessions being recorded, responses were captured visually by the researcher in the form of word clouds and creative captures, which were shared on camera with participants throughout the session. The purpose of this was to model and encourage ongoing reflection amongst the group and to be transparent about the process of enquiry.

Figure 3: Wellbeing definitions [From co-design PowerPoint]



Participants were also introduced to two different conceptual frameworks for wellbeing (see Figure 2): Five Ways to Wellbeing (Aked et al. 2008) and PERMA (Seligman 2011). The first model, *Five Ways to Wellbeing*, was developed by a government think tank New Economics Foundation (NEF) to be the “mental health equivalent of the popular and well-known message that people should eat five portions of fruit and vegetables a day in order to maintain good

physical health” (NEF 2011, p.7). Five Ways to Wellbeing identifies five actions for wellbeing: *Connect; Be active; Take notice; Keep learning; and Give*. Five Ways to Wellbeing is a theoretical framework also used in other arts and health projects, with Ings et al (2012) stating that it is a useful tool because the five actions “correspond closely to behaviours than can emerge in well-designed participatory arts projects” (p.47) and Hanna and Moseley (2012) suggesting that it is a framework that can be easily understood and universally applied within different interpretive frames of reference. The model was also chosen because it was used as an evaluative framework in a previous dance-based intervention with mothers: *Stepping Out with my baby: the impact of babywearing dance on maternal wellbeing* (Cluderay 2018). The second model *PERMA* was developed by positive psychologist Martin Seligman. Seligman states “Well-being [sic] has several contributing elements [...] its five elements comprise what free people will choose for their own sake” (Seligman 2011, p.16). Following explanation of these two models, participants were asked:

- Do either of these models assist your understanding of wellbeing?
- Which would you be most likely to use if thinking about improving your own wellbeing?
- How do these elements [in each wellbeing model] relate to aspects of your wellbeing as a mother?

In the discussion that followed, participants identified the perceived positives and negatives to each framework in terms of ease of understanding, how it might be applied to their experience as a mother, and how it might be applied within the context of an intervention designed to enhance wellbeing. It was identified during through this that the general consensus was that the *PERMA* model that identifies the five elements of wellbeing as being *Positive emotions; Engagement; Positive relationships; Meaning; and Achievement* (Seligman 2011, pp.16-20). resonated most with the group. This was therefore the framework that was taken forward to structure the questions in the second focus group.

Figure 4: Wellbeing frameworks [From co-design PowerPoint]



Focus Group Two

The second focus group took place after the practical workshops, with the aim to reflect on the content of these. The questions in this session were split into two categories: Participation and Impact and Intervention practicalities and logistics. The discussion around participation and impact aimed to capture the experience of taking part and the impact this had on wellbeing. Participants were asked:

- What did you enjoy and not enjoy?
- How has taking part impacted you?
- Has it been engaging? Could it have been more engaging?

In relation to the impact of the intervention, the PERMA wellbeing framework (Seligman 2011) that had been identified during the first focus group was used to structure the questions a series of questions that corresponded with each of the five components:

- How has taking part in the intervention impacted....
- The way you feel (Positive emotions)
- Feeling able to engage in the present moment (Engagement)
- Building or developing relationships (Positive Relationships)

- Finding meaning in your life (Meaning)
- Feeling you have achieved or accomplished something (Achievement)

Finally, the group was asked in relation to the design and practicalities of the intervention:

- If you had unlimited resources, what would be the most important things for you in an intervention designed to positively impact your wellbeing and how could this best be delivered?

Table 8: Focus Group Questions

Focus Group One	Focus Group Two
What does the word wellbeing mean to you?	If you did Daily Dances, what did you take away from it?
What is maternal wellbeing?	What did you enjoy? / What did you not enjoy?
How do [standard] definitions of wellbeing fit with your experience of what wellbeing means to you as a new mother?	How has taking part impacted you?
Are there any challenges to your wellbeing? (That you didn't experience prior to motherhood)	Has it been engaging? How could it be more engaging?
What do you currently do to aid/enhance/improve your wellbeing?	Thinking about your experience of taking part, has it had any impact or effect on: <ul style="list-style-type: none"> - The way you feel - Feeling able to engage in the present moment - Building or developing relationships - Finding meaning in your life
Do either of these models [Five Ways to Wellbeing / PERMA] assist your understanding of wellbeing?	

Which would you be most likely to use if thinking about improving your own wellbeing?

- Feeling you have achieved or accomplished something

How do these elements relate to aspects of your wellbeing as a new mother?

If you had unlimited resources, what would be the most important things for you in an intervention designed to positively impact your wellbeing?

How could this best be delivered?

Workshops

The practical workshops took place over the period of a week, with each one lasting approximately an hour and a half. In recognition of the unpredictability of motherhood, each session had a relaxed start: a half hour period during which participants could join the session when they were ready, with the warmup beginning when all participants had joined. During this period, participants were also invited to reflect on their physical and emotional state by writing down and/or sharing with the group a word(s) to describe how they were feeling. These words were captured by the facilitator and reflected back to the group.

Workshop content was planned with progression in mind, with the intention being that we would first concentrate on simply getting moving, moving through acquisition of movement vocabulary and into embodied awareness. Workshops were led by the primary investigator (ERC), a dance practitioner of over 15 years, who had experience teaching mother and baby dance classes and had completed previous research studying the impact of babywearing dance on maternal wellbeing (Cluderay 2017). This experience informed planning and delivery of the workshops in this study. The full workshop plans and transcripts from the three practical sessions can be found in the appendix.

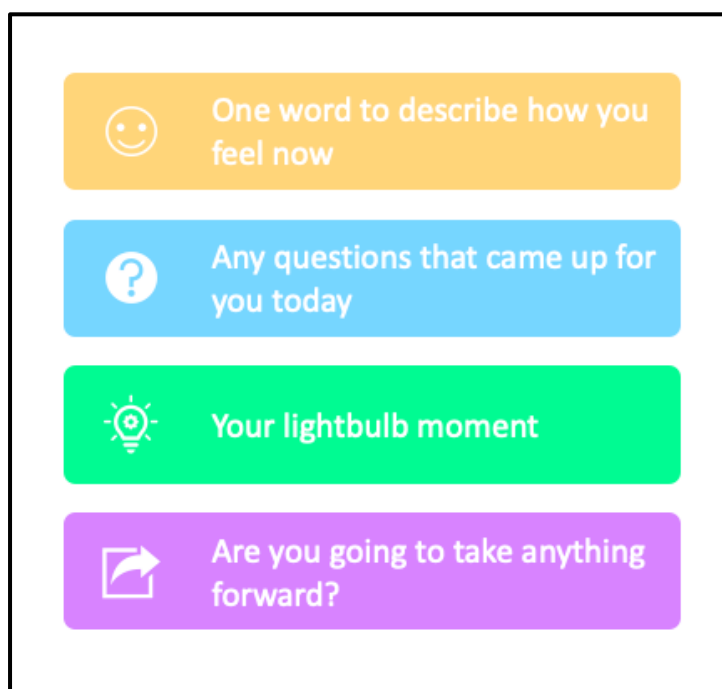
Each session began and ended with the same warm up and cool down. Participants took part from a room in their own home, with some choosing to wear their child in a sling or carrier;

others placed their child in a safe area of the room; whilst some took the opportunity to take part whilst their child was napping, or a family member was providing care. At the end of each session, participants were again invited to reflect on their physical and emotional state, along with their experience of the session that day. This reflection was structured using the prompts:

- One word (or words) to describe how you are feeling
- Any questions that came up for you today”
- Your lightbulb moment” [a moment of discovery or self-reflection]
- Anything you are going to take forward [for the week or longer term]

Figure 1 shows the prompts as they were presented to the co-design group.

Figure 5: Co-design prompts



The words contributed at the end of the session were added to the creative capture in a separate colour and shared with the group as a way of reflecting upon any changes or shifts that had occurred over the course of the session. These are presented as part of the results in Chapters Six and Seven.

Data Analysis

Recordings from both the focus groups and verbal reflection that occurred during the practical workshops formed the data corpus, which was analysed using Braun and Clarke's (2006) six stages of thematic analysis: data familiarisation; generating codes; searching for themes; reviewing themes; defining and naming themes; final analysis and writing up.

First, the audio recordings were transcribed, which gave a way of becoming immersed in and familiarised with the data. The transcripts were then read a number of times for further familiarisation before coding began. The data was coded using "complete coding" which is a process that aims to identify "anything and everything" within the dataset that may be of relevance to answering the research question (Braun and Clarke 2013, p.206). Rather than coding line by line, or simply identifying one code per data extract, in complete coding, extracts are coded in multiple ways and anything that is "potentially relevant" (Braun and Clarke 2013, p. 210) is coded. By working this way, everything that might be useful is coded initially, even if those codes are later discarded. Therefore, in order to best capture everything of potential importance and relevance during the coding process, two questions were considered as the data was being reviewed and codes created: why might this be of relevance and what is happening here?

The third stage of analysis required the searching for themes. Themes represent "some level of patterned response or meaning" and should ideally *capture* something of importance within the data set in relation to the research question about the data in relation to the research question (Braun and Clarke 2006, p.82). Initially, when identifying themes, an attempt was made to generate these deductively using the PERMA framework of wellbeing employed during the focus groups to assist participants' discussion of the impact of the intervention. However, it was found that this approach was too restrictive and therefore this analysis was discarded in favour of a more inductive approach. However, it should be noted that the process was not fully inductive, as the research had a particular purpose in mind – the design of an intervention – therefore the data was viewed and coded based on how this might provide further information or best answer the research questions.

Firstly, themes were loosely grouped with others of similar content and given a preliminary name, for example expectations; pre-baby identity; meeting needs; dancing was fun dancing is energising. Where possible, the theme names were derived from the words used verbatim in the transcript: for example, *Searching for calm*; *Motherhood threatens wellbeing*; *A physical vocabulary*; or Maximising movement. This approach helped to ensure participant voice was retained through the analysis and reporting of the data. As analysis progressed, stages four and five (reviewing themes and defining and naming themes) became interlinked as it became clear that certain themes could be subsumed into or combined with others. For example, *expectations* and *meeting needs* became *motherhood threatens wellbeing*; and *dancing was fun*, and *dancing was energising* combined to become *dancing is energising and uplifting*.

The thematic analysis identified four overarching main themes: maternal wellbeing; the impact of dance; impact of the intervention; and intervention design, with each of these themes having three to four sub-themes. Discussion of these themes is found in the next chapter, Chapter Six.

Chapter summary

This chapter set out to describe how data was collected during the co-design process. It has discussed the co-design ethos and demonstrated how the lived experience of the participants was gathered and understood. This corpus of data resulted in two main analyses: (i) an analysis for the purpose of understanding what maternal wellbeing means to a maternal population and how dance can be used to improve wellbeing; and (ii) the constituent features and delivery possibilities for a dance-based intervention that addresses some of the findings from the first analysis. With this in mind, these two analyses are presented in separate chapters: the following chapter (Chapter Six) presents the thematic analysis of the data from the focus groups, with the final intervention design presented in Chapter Seven.

CHAPTER SIX

Thematic Analysis

Chapter overview

This chapter presents the analysis of the themes generated from the qualitative data gathered within the focus groups held during the co-design phase of the research. Four themes were developed from the data: Maternal wellbeing; Impact of dance; Impact of the intervention; and Intervention design. The chapter starts with a brief description of the methods including the main aims, data collection procedure and the mode of analysis. Further detail about the methodology can be found in Chapter Three. In addition to the presentation of the themes, images collected during the focus groups are presented alongside the participants' words.

Research Themes

The thematic analysis identified four distinct themes: (i) maternal wellbeing; (ii) the impact of dance; (iii) the impact of the intervention; and (iv) intervention design. They are intentionally presented in this order for two reasons: firstly, the themes track to some extent the point at which the data supporting them was gathered; and secondly, as each theme is discussed, they are the building blocks that answer the research question. Figure 2 presents a diagram of the themes.

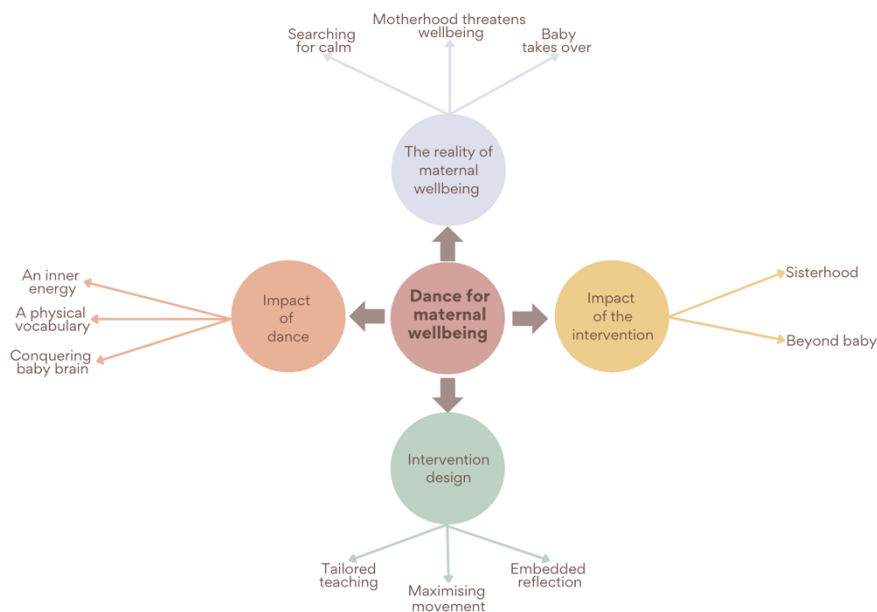
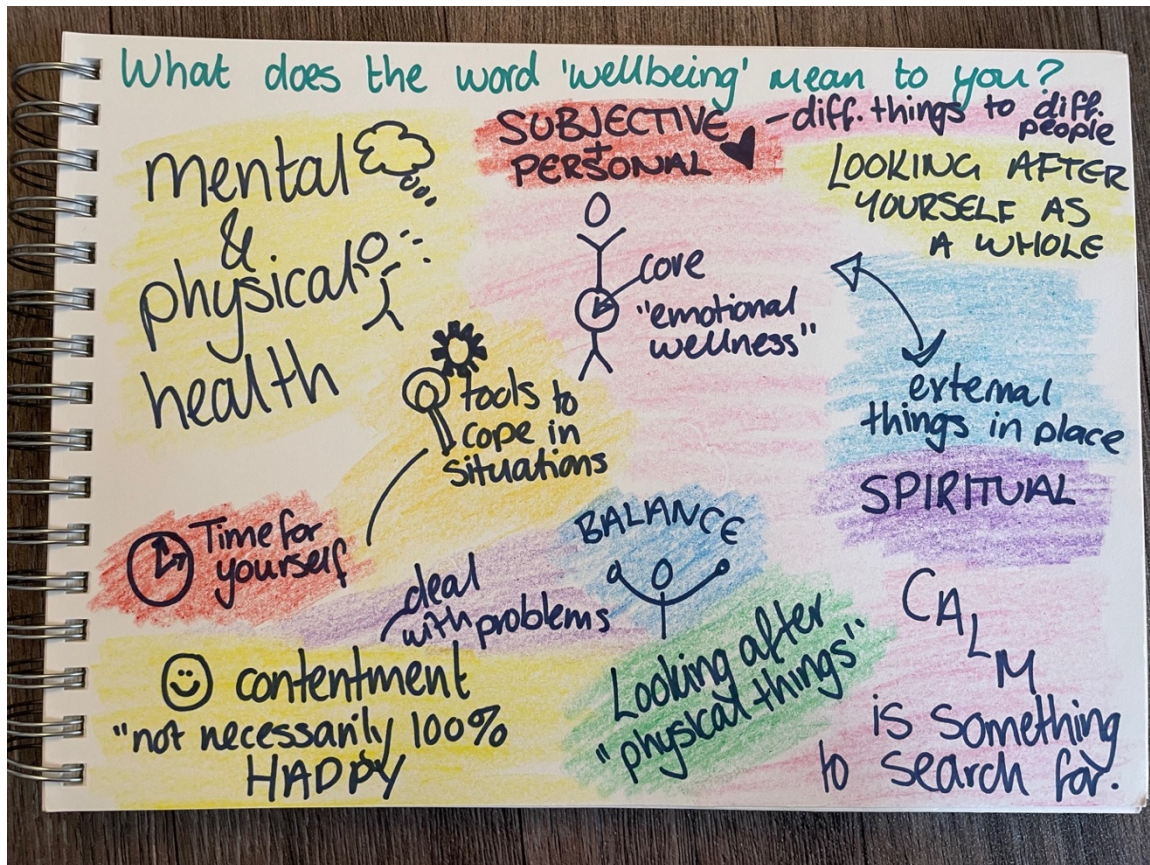


Figure 6: Thematic analysis theme diagram

Maternal Wellbeing

This theme captures what the participants felt maternal wellbeing to be. In this theme, the mothers identify how they define wellbeing, what the challenges are, and some of the things they do to manage their wellbeing as mothers. Across the theme is a tension between the expectations of how mothers would like to experience wellbeing and the reality of wellbeing in relation to motherhood. *Searching for calm* captures the mothers' beliefs around the wellbeing "ideal", as well as highlighting the subjectivity of wellbeing. In *Motherhood threatens wellbeing*, mothers identified that being (or becoming) a mother has a negative impact on their ability to manage and maintain wellbeing, particularly when compared to their experience pre-motherhood. They express a return to *basic human needs*, when they suddenly become responsible for another human being and therefore prioritise baby's needs over their own. They also expressed a reluctance to ask for help, because of difficulties exposing their vulnerabilities or being seen to be *not a good mum*. Also discussed is the difficulty matching up to what the women perceived society's expectation to be of them as mothers – "we're expected to be superheroes". In the theme, *Baby takes over*, the women described of a lack of control as the new baby takes up time previously there for other pursuits such as investing in personal relationships, individual interests or creative activities. Amongst this, there is a desire to take part in activities that retain some of their pre-baby identity.

Figure 7: What does wellbeing mean to you?



Searching for calm

The mothers were asked in the first focus group: “What does wellbeing mean to you?” They identified that wellbeing is subjective, and individuals may define it in different ways, as well as choosing to prioritise different aspect of wellbeing. They discussed how wellbeing can encompass different areas of their lives: emotional, mental, physical and situational aspects and that it requires a holistic approach to looking after oneself.

JC: Well for me [...] Err, it's mental and physical health and also taking time for yourself, erm, I guess there's probably more to it than those three things and I'm sure as we go round the list will get longer, but yeah [...] both mental and physical and actually, erm, [pause] errr, looking after yourself as a whole.

The mental and physical aspects of wellbeing are expanded on in the quote below as the participant talks about *internal* and *external* factors that can influence wellbeing. The internal

factors relate to emotional and psychological wellbeing, whereas the external relate to having support and structures in place that facilitate the internal sense of wellbeing.

KB: I s'pose my instinctive immediate thought is almost a sort of like, I picture a core of a person [...] I know it does extend physically [...] if I was thinking of my own wellbeing, I suppose I would mostly think of an emotional kind of wellness, kind of internally. Erm, but of course, yeah, it definitely does extend to that ... for that, often to be in a good place you need [...] external things to be more in place physically and situationally.

Developing further the notion of wellbeing as subjective, it was suggested that individuals might choose to prioritise different areas depending upon how they conceptualise wellbeing, or the aspects they value the most. In the quote below, one of the mothers demonstrates through repeated use of the word *emotional* that for her, wellbeing is linked to emotion.

AMR: I was thinking how perhaps it's quite a subjective word and that it's quite personal to the individual what their own wellbeing is, erm, yeah, so I was thinking some people would think of it as, well obviously it's a very emotional thing, but some people are more physical than others and might see physical wellness as more important, or sort of prioritise it a little more than others would focus on the emotional side and so I was thinking it was interesting in that respect and it might mean quite different things to different people.

The views expressed by the mothers in the focus groups demonstrate how they were conceptualising wellbeing beyond simply being *healthy*. Whilst they identified that physical health is important, their discussion focused more on their emotional entanglements with wellbeing. One mother voiced her belief that, in addition to emotional and physical aspects of wellbeing, there is a link between wellbeing and spirituality. She expressed that, in her view, feeling connected to something bigger than or beyond oneself can have an impact on wellbeing.

TB: I agree with a lot of the other people about, erm, all those different aspects, but I think also within that it could be spiritual wellbeing as well and could be an important aspect if someone's not feeling, erm, connected to God or whatever they perceive as a higher power, that could affect their wellbeing.

As the group explored the emotional entanglements wellbeing, they identified calm and balance as being something that was sought after. In the quotes below, feeling a sense of calmness or balance as seen as an antithesis to the worries, concerns and anxieties they experience as first-time mothers.

ARR: I would add balance and calm. Especially calm in the opposition of all the stress and anxiety that's going on ... I think that calm is something to search for.

AMR: calmness, is I think the main feeling or mood... is, yeah, I dunno, yeah

Expanding upon the idea of calm was the notion of contentment. One mother distinguished between feeling *happy* and feeling *content*. She believed that feeling content might enable a greater ability to face up to problems and deal with challenges, as she would have the emotional capacity (*tools*) to cope with difficult situations.

AT: I think it's about, almost, a feeling of contentment. You don't necessarily have to feel happy all the time, but if you feel content within yourself then you can deal with problems and, sort of, deal with scenarios, things that are thrown at you, erm, if you have that sense of wellbeing. And that doesn't necessarily mean that you have to be a hundred per cent happy all the time, but it gives you the tools to feel that you can cope in situations and things.

In their search for calm, the mothers discussed how certain activities and ways of thinking helped them to maintain their wellbeing. In the quote, one mother describes how attempting

to juggle different tasks and the *duties* of motherhood can lead to an increase in the stress hormone cortisol. She mitigates this by setting small, management tasks that she can achieve and expresses that these *small wins* are especially important to maintaining her wellbeing, because she does not often feel a sense of accomplishment.

JC: Setting little wins on a daily basis [...] being able to juggle the duties of what you need to do. Which itself, we said, you know, is a stressful thing; just trying to juggle that, and your cortisol levels do get triggered because you are trying to juggle everything [...] knowing what the priority is and if you manage to achieve that [...] you do get a sense of accomplishment. But I'm not sure you get many senses of accomplishment. Erm, I think it is important to recognise the small wins on a daily basis.

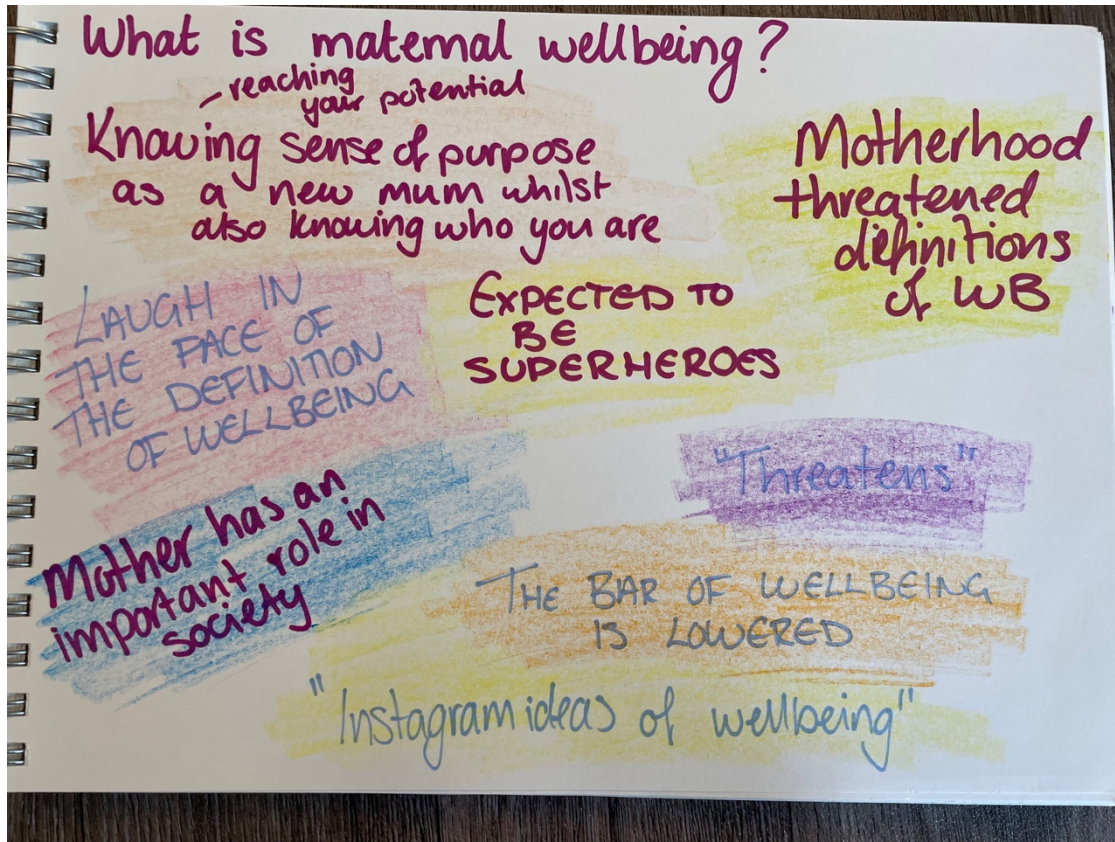
Adopting a positive mindset when faced with the challenges of motherhood was another way in which mothers felt they could achieve a sense of calm, balance and wellbeing. Below, one mother describes giving advice to another who is experiencing the challenge of looking after a baby with colic

KB: We were sort of just saying about, you know, AT's baby has colic, and we were saying you gotta just have to hope it gets better [laughs] and it probably will. It will, I'm sure. And just being ... thinking about those things that are coming, those changes and things that are hard now will pass. Erm, and yeah, taking it one day at a time.

Motherhood threatens wellbeing

Central to this theme is the experience of the mothers feeling unable to meet their own and others' expectations. Women expressed a view that this is partly because motherhood is not respected or understood, with mothers being "set up to fail" and that it becomes almost impossible to meet health goals and benchmarks that many people may take for granted, when they do not have the responsibility of caring for a baby. One of the challenges experienced was a disparity between the expectations of what "should" be done to maintain good wellbeing and the reality of what is possible within the context of motherhood.

Figure 8: Participant' responses to the question 'What is maternal wellbeing'?



In the first focus group, the participants were introduced to a number of definitions of wellbeing and asked to comment upon how these might apply in the context of motherhood or the postnatal experience. In the two quotes below, the mothers state that these definitions do not match their experience. In the first quote, the impression is that the definitions are so far removed from the maternal experience that they are in fact laughable. Whereas in the second quote, the mother expresses a disconnect between the experience of motherhood and the accepted definitions of wellbeing.

KB: You kind of [laughing] laugh in the face of the definition of wellbeing a little bit.

AMR: I think we all agreed to an extent that motherhood kind of threatened many of the definitions of wellbeing ... yeah, they didn't really match up.

The idea of motherhood being a *threat* to wellbeing particularly resonated with the group, with the quote below expanding upon some of the reasons why maintaining wellbeing might be a challenge to a new mother. The phrase *Instagram ideas of wellbeing* suggests an unrealistic, filtered notion of wellbeing that is at odds with the reality of mothers who are looking after poorly children and struggling to get sufficient sleep.

KB: I mean, the word “threatens” is ... I’ve written that down [laughing] that really rings true. [...] society kind of, erm, sets an idea of what wellbeing is, it seems to maybe be for [...] for not where we are right now. Like, we’re in this particular point of not being able to subscribe to ... you know, Instagram ideas of wellbeing [...] smaller things [...] getting an hour’s sleep, getting the baby to not throw up, y’know all that kind of thing.

In the quote above, wellbeing is alluded to as a construct of society – “*society [...] sets an idea of what wellbeing is*” – and that this is on part reinforced through social media, like Instagram. Throughout the conversations around the challenges to wellbeing, the word *expectations* recurred. Below, this is further discussed as one mother describes her belief (affirmed by the non-verbal agreement within the group at this point in the focus group) that certain unrealistic expectations around wellbeing and the maternal experience are enforced by a patriarchal society.

AMR: I feel like one of the sort of biggest challenges as well as our society is that you have a kind of patriarchal, y’know, erm, situation [laughs] we’re all kind of faced with where obviously, certain things are expected of women and men and it’s like [...] we’re set up to fail, is something I’ve come across a lot ... [murmurs of agreement from the group] ... so it comes down to a societal sort of thing.

When discussing this in a breakout group, it was felt that some of these unrealistic expectations come from a lack of broader understanding and acknowledgment about the realities of motherhood. In the quote below,

AMR: [feeding back on group discussion] we spoke about how, you know, the mother has a great and very important purpose in society and yet at the same time, the realities of it are not always, sort of, fully respected or understood. We're sort of expected to be these kind of superheroes who can raise, you know, perfect children [laughs] and look after ourselves and our family and people around us. Yet maybe there's not much awareness [...] at the same time, we're kind of hidden away a little bit and there's not much awareness of the reality [...] and how extraordinarily hard all of that is. [...] talking about "reaching your potential" was in one of the definitions [of wellbeing] and how that means something different to everybody, but it, yeah, felt like an interesting way to define wellbeing. (FG1:8-9)

Yet, whilst wider social and cultural narratives clearly influenced the expectations placed upon women, some of the pressures on mothers could be traced back to the stories they told themselves about what how they should fulfil their role as a mother. Although it was unclear what lay beneath or perpetuated these beliefs, the discussion reflects a notion of *perfect mothers* who are able to raise *perfect children*, with the word *should* occurring repeatedly throughout the mothers' responses.

ARR: I would add that it's, erm, there's a [indistinct] feeling like you should be able to do it all.

KB: Mmm

ARR: You should be able to balance and cope and do everything and, personally, I'm at home all day so I feel like I should be able to get all the housework done [laughs]

KB: Mmm

ARR: But realistically, you know, that's quite hard with the one year old. [laughs]

JC: Mmm.

As the quote above demonstrates, participants expressed a dichotomy between the expectations of the perfect mother and the reality of motherhood. In fact, their articulation of

their experience suggested that some days they are more concerned with survival tactics. As their lives changed, so do their priorities, which has an impact in relation to their perspective on individual needs and wellness goals. Instead of thinking about wellbeing in holistic terms, they experience a shift. In the quotes that follow, the mothers discuss the differences between their view of their needs *before motherhood* compared to the reality of life once they become mothers.

JC: what keeps coming back to me is erm, what you need in terms of wellness as a person, but actually it does go back to basic human needs when you have a small child and it's not necessarily about what you thought wellness was before you were a mum. [...] that kind of resonated with me quite a lot.

This shift in focus meant that women felt unable to prioritise their wellbeing in the same way as they had before they became a mother, with the sense that they have to “lower the bar” and compromise on the standard of wellbeing they might have attained previously. Use of the phrases *basic human needs* and *luxuries* highlight the stark contrast they experience.

AMR: the luxuries that you didn't realise were luxuries before motherhood but actually are an absolute luxury, like sleep, a cup of tea whilst it's hot, a meal whilst it's hot, erm, err, [laughing] a shower! Brushing our teeth! Which were, you know, we didn't realise [laughing] they were such a luxury before motherhood [...] It is almost as if your, erm, your wellness goals erm, are lowered somewhat and you just go into a realm of basic human needs of you know, sleeping and eating, erm, washing.

[Group laughter]

AMR: sometimes!

KB: I mean, I wrote “the bar of wellbeing is lowered”, which feels like quite a negative thing to say in a way [...] TB brought up the thing of purpose as well [...] I guess it's just when you're sort of talking about your time is consumed by them and therefore what was the things that you could maybe do in the

past, are less easy to sort of do [...] the purpose shifts and we kind of ... you end up having smaller goals of what you need for wellbeing (FG1:9).

The mothers expressed that the shift in purpose and the necessity to prioritise their needs in terms of what is essential occurred partly due to an actual, or perceived, lack of time.

AMR: Time becomes something you have no control over and you can't access it. It's easy to feel overwhelmed by that [...] when we finally have some time to ourselves, we have to decide of all the many things that we need, which one to prioritise, so if that's something emotional or you know, for ourselves, or it's creative or nutritional or physical health or just sleeping and it sort of feels like an impossible, erm challenge to - [child talking] yes, you can – to, yeah, meet any, let alone all of those things.

Another challenging factor was seen to be the additional caring responsibilities that women take on once they become a mother. Looking after baby as well as themselves, as opposed to their life pre-motherhood without the duty to care for their child, was felt to be an unexpected challenge.

TB: Related to the time thing – but that lack of control over your life can affect it. So in the past, you were responsible for yourself and if you didn't get enough sleep or you didn't get your food or if you didn't get to your exercise class on time, it was your fault and now, it's like there's this other thing that is really affecting whether you can do [...] meet your needs that you were planning to meet and how successfully you can meet them. (FG1:12)

Although one of the things that the mothers identified as being supportive was receiving help from others, one of the challenges was feeling able to ask for this. Their difficulty reaching out for help related to a sense of vulnerability and the impact of the previously expressed expectations.

JC: [...] asking for help and getting help [...] It shouldn't be a challenge, but sometimes it can be a challenge.

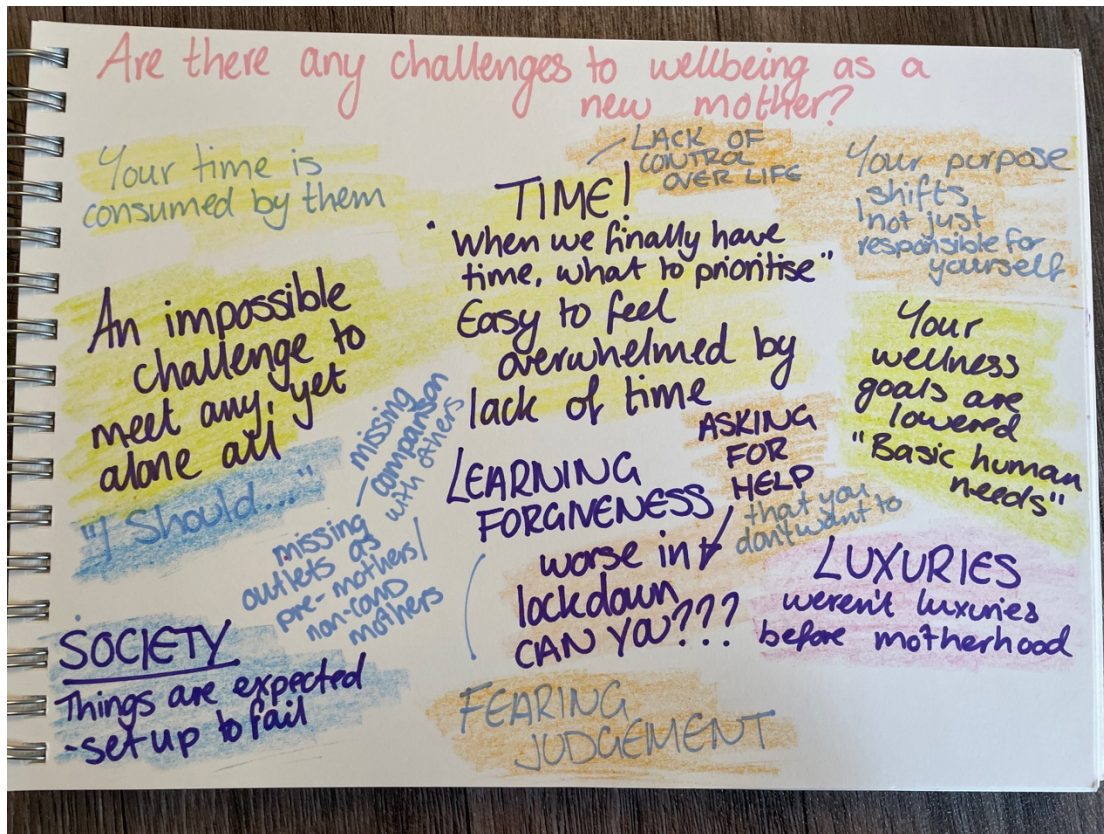
AR: One of the challenges is fearing, I guess, judgement from others.

One of the biggest barriers to asking for and receiving help was a concern about what others might think about them as mothers and that asking for help could be met with judgement by others who might perceive them as being unable to cope. This is articulated in the quote below as one of the participants articulates her reluctance to seek help from her mother-in-law. She describes how asking for help is especially difficult as before becoming a mother, she had not found herself in a position where she needed to ask others for assistance. Her use of the word *revelation* reveals how crucial this experience is to her identity as a mother.

KB: I feel like that's been my [...] big revelation of motherhood so far is that [...] I've always heard people saying, "it's hard to ask for help" and I realise now why that is. It's because you generally have to ask someone that you don't want to ask [laughs]. So my example would be asking my mother-in-law, who I'm lucky enough to be in a bubble with her, so she does help me a bit with childcare, but I'm conscious of not wanting to seem like, not a good mum, or something like that and I just really didn't, for a long time have really struggled to ask, because it felt like she would in turn be like, "Oh, you can't do this on your own. You're not a good mum." You know, that's not what she's thinking but it's this thing of, "Oh right, it's really hard to ask for help" because you're asking for the thing that you don't want to have to ask for" And I don't think I've been in that position before and, you know, I didn't need help before and now I'm in a level of vulnerability that I've never been in before and, it's tough, yeah.

ARR: So just balancing everything and you feel like you have to, so asking for help is hard because you don't feel like you should have to

Figure 9: Challenges to wellbeing



Baby takes over

Perhaps controversially, one of the biggest threats and challenges to maternal wellbeing can be baby themselves. Whilst the mothers expressed love and joy for their child, the demands of looking after them and the shift in routine and responsibility can leave them feeling lost and confused.

KB: one of the things I kind of struggled with, it's fair to say at the beginning, I didn't know what to do with him a lot of the time. I had endless love but also found it kind of odd to be on my own.

The women described how, as first time mothers, their purpose changed and they expressed a shift in their sense of identity and how they viewed themselves. In the quotes below, this shift is communicated through repeated use of the word *new*, suggesting that the *meaning* and *purpose* women seek to find once they become a *new mother* is different to that which may have gone before.

JC: knowing your sense of purpose as a new mum [...] fulfilling a sense of who you are [...] that does change and shift. [...] as a new mum, you do get a new sense of purpose.

TB: struggling with our purpose as a mother [...] how that might compare to our previous roles in society [...] our identity and who we were. I guess that's quite important [to find that] new meaning in our lives.

This shift in identity and alterations to purpose and meaning are in part influenced by the fact that during the postpartum period, focus shifts from the mothers as individuals. It is unsurprising that they struggle with their identity, as they reported that conversation and activities tended to revolve around their child. In the two quotes that follow, the mothers describe how all-consuming motherhood can be. Their time is not only *consumed* by looking after their baby, but their baby also becomes the focus of their conversations and activities.

KB: I guess it's just when you're sort of talking about your time is consumed by them and therefore what was the things that you could maybe do in the past, are less easy to sort of do.

AT: Even though you meet up with friends, you often end up talking about the baby and even if they haven't got a baby, you're still telling them about your baby and so Like, "What else did I used to do? I don't remember!"

[Group laughter]

[?] Yeah!

KB: Well he slept for this long and he did this much ...

AT: This many poos...

KB: ...nappies

[?] Yeah! [laughs]

Identity can also be influenced and affected by our experience of interpersonal relationships. The shift in focus away from the mother as an individual to the mother as carer for her baby

impacts upon her ability to relate to others and maintain meaningful relationships with her partner, friends and family. This is highlighted in the following quote in which the mother expresses dissatisfaction that she and her partner are no longer able to *just be [them]selves*, and that this contrasts with the way in which they might have interacted *in the past*.

TB: Yeah and I think equally that time issue relates to the relationships as well. Like, investing ... your relationship with your partner can be quite like ... you don't have as much time to just be yourselves as you might have in the past. Erm, a lot of conversation with anyone you meet, whether it's friends ... go for walks and it's really nice but a lot of that ends up being talking about babies and I guess those all are kinds of connections, but it's quite repetitive.

The preceding quote and the one below returns to the theme of *time*. This builds upon the discussion earlier on in the theme about how lack of time impacts new mothers in being able to meet basic needs. On this occasion, time is cited as a limiting factor when it comes to mothers being able to engage in activities in which they may be able to find deeper meaning. In the quote that follows, the participant expresses how she is no longer able to engage in painting because she does not have enough time to become engrossed in it and achieve the flow state through which she might find wellbeing benefits. The women expressed feelings of loss related to their pre-baby identity, and a difficulty finding or returning to who they were/are, including being able to continue doing some of the things they enjoy.

TB: I find engaging with anything is the hardest thing as a mother at the moment because to really get in the flow of something, you often have to give it a really decent amount of time; it can't just be a 10 minutes here, 10 minutes there. I have my paint brushes out and stuff ... I can't just go to get and go "Ok, I'll do 10 minutes now and then when he wakes up it'll be fine", I kind of need a full hour to get that sense of flow and it's very rare to find that.

JC: Completely agree with that.

This theme concludes with the concept that the mothers viewed being able to find time for meaningful activities as important in their search for personal fulfilment and contentment. In the first quote, the mother expresses a desire to maintain a connection with her sense of identity *pre-baby*, which is reinforced in the second quote with the expression *without baby*. The use of the word *retain* suggests that the *pre-baby* or *un-baby related identity* is something that is important for the mothers to keep hold of in order for them to feel a sense of greater meaning and purpose.

KB: Mmm I think pre-baby identity is a really good point [laughing] like, touching in on that side of yourself.

AMR: ARR mentioned about going for walks and listening to podcasts and it being something un-baby related and I think there is that sense ... and then JC, you also mentioned about setting up your sewing corner, erm, so I think there's these things that we can try and do to retain our, y'know, our sense of identity, you know, pre-baby, or without baby being a part of that and creative kind of pursuits come into that a lot and I do a lot of photography and things. So I think that ... erm... ... escaping baby world.

The impact of dance

In this theme, the mothers discussed the experience of moving and dancing, and the energetic or behavioural shifts it stimulated. *An inner energy* captures the way in which physically moving “awakened” unforgotten or neglected aspects of their selves. In turn, this energy began to permeate their day-to-day lives, enabling them to better fulfil their role as mother. *A physical vocabulary* describes the ways in which mothers were able to hone their physiological awareness, and tune into their bodies, incorporating content from the workshops into their daily lives as mothers to reduced stress, relieve pain or alleviate monotony.

An inner energy

In the previous theme, the mothers described a sense of loss and difficulty maintaining their pre-baby identity and finding meaning and purpose in their lives as new mothers. Taking part in dance activity enabled the women to not only find joy through movement but connect to *forgotten* aspects of themselves, as demonstrated in the quote below, from a mother who had previously enjoyed dancing and performing regularly before having her baby.

JMM: So a lot of it has kind of awakened an inner energy in me, of kind of like a past self, like before being a mother, like what I've forgotten that I had and ... it's a really strange feeling but yeah, that's probably the easiest way to describe it. That's the main thing for me, thinking "Oh, I forgot what it's like to kind of feel like this" and "Oh, I used to do this all the time" and it's kind of nice feeling like "Oh, maybe I can feel like that again at some point" [laughs].

The quote below indicates that participation in movement and dance facilitated a sense of immersion, or flow state, that mothers find difficult to make time for on their own. Having given herself permission, the woman experienced a sense of joy and release, as she found a way to express herself, and that this had meaning.

AMR: I feel excited by movement and dance and I feel like I've given myself more permission to move and express myself through dance. A lot of meaning derives from feeling joy in movement and also feeling the sense of immersion during the various activities.

The women found dancing to be energising, particularly when they took part in a session at the beginning of the day. Having done so, they found the increased energy was maintained throughout the day and resulted in feeling more productive and *awake*.

TB: I actually love dancing and moving around [...] getting the energy from it.

JMM: So, it's made me feel more awake for the rest of the day. It was kind of nice doing it earlier on in the day, mid-morning, Then, for the rest of the day, [...] I've actually done something with my morning that I've enjoyed [...] my afternoons have been more productive and I've been able to, kind of, have more energy to interreact and play with RM later on.

The inner energy manifested in multiple ways and across different domains: mental, physical and emotional. One participant identified that, following a short dance activity, she gained an enhanced sense of mental focus and an increase in physical and emotional energy. She believed this enhanced her wellbeing because of the way it brought her *out of [her] world*, which facilitated a change in her physiological state.

JO: it lifted my mood ... made me laugh, made me laugh at myself because I couldn't do any of the moves, but I tried that 10 minutes completely changed my mood that day and it kind of buffed me up for the rest of the day and I think, yeah, what I'll take away from it is even that 10 minutes of something for myself is enough to, erm, enhance my wellbeing that day ... the high energy and learning something and having my focus ... because my day is quite mad at the moment and so just kind of, coming out of my world and into something fun and energetic really, really worked for me [...] learning a new dance has made me feel better mentally, physically and just, upped my mood.

The group further identified that different types of dance and movement had different effects, particularly in regard to their emotional state. They found gentle movement exercises beneficial for calming, grounding, or relaxing, whilst more upbeat and energetic movement was uplifting and helped relieve stress and tension.

AT: The relaxation dance. [...] that one was quite big for me because, y'know, I just felt so tense and so achy all the time, so that was really good [...] then just lifting my energy with some of the more upbeat ones [...] Again, I just

felt so much better afterwards and so felt so much more equipped to deal with [things].

ARR: I really enjoyed the like, doing different things. Like, almost like short little bursts of it and then [...] the dancing on the floor; that was really what I needed then, that day. Whereas on the last day when we did the slightly more, more energetic, that really suited me as well.

The experience of learning something new also resulted in positive emotions. Below, the participant expresses happiness in being able to experience different genres of dance that she had not previously experienced. There is a sense of joy in her discovery of something new and she expresses this as an internal feeling of happiness – “it made me [...] happy inside”.

JMM: I enjoyed, like doing ... learning new dances. Like the salsa and the line dancing. I would have loved to have done the waltz as well. [laughs] and the musical theatre one because it's like different – I don't know if this is the right word – like, genres of dance and it made me feel really happy inside to have those kind of experiences, like taster experiences learning those. ... I enjoyed that.

There was also an indication amongst the narratives within the focus groups that the energetic shift brought about by dancing set into motion new thinking and behaviours that resulted in positive behavioural change. This was supported by an expanded knowledge of wellbeing, which allowing them to see different ways of managing wellbeing.

AT: So for me, at the start when we did the very first focus group, I was in a really bad place. I was really struggling. He had really bad colic the first 12 weeks and it was pretty relentless and I'd been finding it really difficult. [...] Everyone was saying “it'll pass, it'll pass” and it has passed [laughing] and so he's quite a different baby. But it allowed me to say “Right ok, why is it getting to me so much? Why am I finding it so difficult?” and then putting things in place that, y'know, that I was enjoying and that I was doing to look

after myself has then helped him ... well, [laughs] it might not be but I feel like he's happier too because I'm happier and so, erm, that's been really, really big for me. I think, like in comparison to how I felt at the start of this, I feel a thousand times better.... which is, which is great. ... taking part, the difference from the start to the end of each session ... y'know, that positive attitude and just generally happier, really. It just had such a positive impact, erm, just ... not just from the start of the week to the end of the week, but each session as well.

The act of trying something new, even if it was difficult or challenging, was encouraging. Women were able to articulate how this new-found confidence could be applied to other situations in their life. Below, one of the mothers describes how the process of learning a dance, even when she was not getting it “right” helped her to see a way of moving through difficult experiences. She suggests that building upon success incrementally a step at a time, literally and metaphorically, and focussing on the small actions she can do might enable her to move forward at other times when she is feeling *stuck*.

KB: well one thing is that it's made me think of a ... of the future in a positive way because I've thought, "Oh, I know this step now. I'm going to try this again. I'm going to learn this and I can apply this and even though I'm doing a cack-handed job of it now, I can build on it. So that was kind of a sense of ... thinking it's sort of easy to be a little bit stuck in where you are. Yeah, so it had a positive impact on that.

A physical vocabulary

Although for some of the mothers, dancing again was reminiscent of a pre-motherhood activity, for others it introduced them to a new way of being and taught them a new physical vocabulary. This physical vocabulary introduced them to new ways of moving that they started to use as a way of relieving tension, pain or physical discomfort. To many, this came as a surprise and was an unexpected, *eye-opening* outcome. They particularly expressed how the stretching and opening release-based movements taught as part of during the warmup and cooldown helped them to release. In the quotes that follow, the mothers describe the ways in

which they incorporated this movement vocabulary they learnt during the sessions into their routine at times when they were struggling with physical discomfort.

KB: I guess for me, so JMM was saying it reminded her of something she had done previously whereas I suppose ... I haven't done something like that since primary school. For me, it was actually ... I think it sort of taught me some physical moves and I've been doing the shoulder ... I get a lot of neck and shoulder stiffness and I've been the shoulder stuff a lot actually and the rubbing as well, but the shoulder ... I've found that I've kind of learnt almost like a physical vocabulary that I didn't know before to kind of help ease some of the aches and pains but also ... I mean, before I was feeling really tired. LB was up at five o'clock this morning and I, y'know, felt exhausted before this session but I put on a tack and did the kind of warm up session and I wouldn't have known to do that previously, so that was definitely something I learnt.

JC: I think just, yeah, getting back to something as basic as just stretching which, y'know, I know EC is still pretty young and I'm still in the, well, possibly still in the... getting through the recovery stage, but it's ... I mean, you get yourself into such weird positions with, erm, picking the baby up, feeding the baby, all those sorts of things that your body just goes [scrunching sound] [mimics tightening up] and then you're just y'know... so moving definitely but just basics of stretching every day, which y'know I was very active before, before the birth, and stretching and general exercise was a very regular thing. But, yeah, seeing something as basic as that is, "Yeah! I really needed to do that, I'd forgotten about that" and the quickness, the speed it has on your wellbeing and the release of the body is great.

TB: So I think for me ... I always knew movement was important [...] but I think some people have mentioned about the stretches and the aches and pains around the shoulders... and that's been such a big thing and what I've noticed the last few days is just doing some of those stretches and doing big circles in front of AB; he loves watching it, he finds it really funny when you're

moving the arms and y'know, shaking about and stuff. So that's quite good because it entertains him but helps me at the same time, which is really good.

AMR: I very much enjoyed the stretching and self determined movements [...] really developed enhanced awareness of myself and my body and what it needed, it was quite eye-opening. I think I will be more alert to stimulus to move and also to listen to my body more.

In addition to using movement to enhance their physical wellbeing, the participants also described how they were more inclined to dance in their own time at home. Learning dance steps and being able to practise in a structured environment was an important factor in the women feeling confident to dance on their own and implement the taught material into independent practice.

KB: I actually found myself kind of practising the steps that you'd shown us and dancing [...] so I'd definitely, like, taken that on [...] I found that that's what I was just sort of automatically doing it because that was easier to do and more instinctive.

JC: it's good to have done the steps and so you know that y'know, because you've practised them you can just slip into them whilst you're doing something.

AT: The steps that you did, that we did, y'know, like the line dance and stuff like that, I was using those dancing to other songs then, so that was quite fun.

At the start of the process, the participants were also introduced to a series of resources called *Daily Dances*. *Daily Dances* were a series of instructional guides that provided mothers with suggestions for how they could create opportunities to move and dance. Reflecting upon these, they expressed that they were more inclined to engage in this independent creative

movement practice having had an opportunity to practise and test out the ideas during workshop sessions. Introducing mothers to this movement content during sessions bred a sense of familiarity and comfort that meant it became part of their day-to-day repertoire

AT: I found that the ones that we did together I then took forward [...] it's quite nice being talked through some of them and then, and then I carried on with them essentially. And then, like KB said, the steps that you did, that we did, y'know, like the line dance and stuff like that, I was using those dancing to other songs then, so that was quite fun.

JC: I mean, one of them is making a cup of tea anyway, but you can, you can sort of, because you've had a run through, you don't feel as, erm, exposed, or coming in as totally blind doing it, you kind of know what the steps are.

KB: I remember when you were first telling me about them, I really loved the idea because I felt like it was great to have a structure for something that I wouldn't know where to start but I actually found that the structure you'd given us in the Zoom sessions kind of took over that.

Conquering baby brain

In addition to enhanced physical and emotional wellbeing, the women who took part in the intervention expressed that they experienced benefits to their mental and cognitive functioning. The phrase *baby brain* was used as shorthand to indicate the difficulty the women with memory and cognitive processing. This is indicated in the first quote below where the participant is explaining how her brain is so *fried* that it is commented upon by her family, and she notices that she struggles to remember or *pay attention*.

ARR: [laughs] my mum's been getting on at me that my brain's fried and I don't remember anything so it was really nice when [...] doing the routine to be like, "Ok, I'm half-paying attention, but I can still mostly get these steps, y'know, vaguely on time, so my brain can't be completely fried." [...] That achievement of being able to do a routine [laughs] maybe not perfectly

but you've got a bit over the baby brain maybe and your brain still functions, you can still follow some moves.

Being able to apply cognitive processes when dancing such as memory, directional or spatial awareness was also perceived to have a positive effect. In the second part of the preceding quote, the participant identifies that being able to *get the steps* right offers her a sense of reassurance that her brain is functioning. This was also echoed by the other women in the group who articulated a sense of related to executing and mastering dance steps, footwork or choreography.

JMM: My sister tried teaching me the waltz before and she'll make fun of me because I'm really bad at getting my feet coordinated. But, with the samba and the line dancing ... I could do it. I could remember what knee you're meant to slap at [indistinct] and for me that was, "Yes! I've actually achieved something!" So when I'm able to see my sister again, I can say, "Ha! I can do this!"

KB: there's a sense of satisfaction or achievement of getting it, of doing it.

As well as having a positive cognitive impact, there was also a sense of achievement. The women were able to let go of perfectionist thinking and tell themselves that it was ok to not get something completely right. In the two quotes below, the women recognise and celebrate their achievements and the accomplishments made during the sessions.

JC: Learning, erm, a few moves, also definitely that connection with learning something and getting your brain in gear. Erm, the connection with other mums, erm, y'know and I think, yeah, it is layered and different levels of achievement but I think, yeah, there's been quite a few.

ARR: in mastering the y'know, the steps [...] I felt satisfied at having got it right and actually that's an achievement in itself and that's probably a testimony to not patting yourself on the pat when you need to and

recognising there's little wins and things. But yeah, it definitely did feel like an achievement. [...] That achievement of being able to do a routine [laughs] maybe not perfectly but you've got a bit over the baby brain maybe and your brain still functions, you can still follow some moves. But equally, that it's ok if you don't get it right 100% you know? Good enough is good enough, we'll go with that, and having fun is more important sometimes.

Impact of the intervention

This overarching theme captures the women's experiences of taking part in the intervention. *Sisterhood* describes the bond that developed between the women in the group and the feelings of security and reassurance that arose as a result of peer support and shared experiences. In *Beyond baby*, the mothers express how engaging in the intervention has given them another way of finding meaning beyond their role as a mother. *Conquering baby brain* describes the cognitive impact of taking part and the sense of achievement from learning something new.

Sisterhood

The mothers found taking part in a group intervention with other mothers to be supportive, nurturing, and an opportunity to learn and share with other women in similar circumstances. The intervention provided them with a *protected* space within which they were able to explore their understanding of wellbeing and benefit from collective *wisdom*.

AMR: It was very warming and confidence boosting to be amongst a group of very lovely and intelligent women. It felt like we all gave each other space and respected each other which brings a sense of wellbeing and positivity. [...] It has really provided me with some quality food for thought and a place to share thoughts and ideas and open my mind with other mothers and women [...] it was an opportunity which brought me closer into a serene and protected feeling of sisterhood and female wisdom which I really crave [...] I will always remember it as a cosy circle which brings about warm feelings.

In addition to the benefits of conversation alone, relationships were built by dancing together. Combining structured discussion with a physical activity broke down some of the barriers to mothers being able to initiate conversation with each other. In the quotes below, the participants describe a symbiotic relationship between physical and verbal expression. Their responses suggest that dancing and moving together increased their sense of togetherness, which in turn resulted in assuaging some of their anxieties about initiating conversation or forging new relationships with each other.

KB: The mental and the physical side of it go very well together. The sort of support group aspect mixed with the physical expression is what made it so nice I think.

ARR: the fact that we've talked to other mums in this group, we've danced in front of them, made a fool of ourselves; it makes it a bit easier to start a conversation with another mum I think and to share.

JC: Yeah, I would second that in terms of connecting with other, with other mums and building those relationships

Witnessing other mothers attending sessions whilst also managing the demands of motherhood was especially reassuring for some of the women. In the quote below, one of the participants describes the encouragement she felt gaining an insight into the lives of the other mothers who were part of the study. Recognising that there were others going through the same challenges enabled her to feel that she was part of something with others, which resulted in a sense of belonging.

ARR: it sometimes feels like you're completely divorced from the rest of the world and it's just you in your bubble with your baby going crazy. Things will get better and we're part of something with other people. We're doing the same thing, we're seeing each other kind of dash off and being like, "I'm sorry, I have to go off and do that", you know. That's quite good as well, to

reinforce that as well; that we're all together in this crazy period that we go through.

The women valued being given an opportunity to meet and talk before engaging in the physical sessions. This initial session facilitated a greater sense of comfort and familiarity with contributed to the bond the women felt with one another.

JC: I think everyone said that initial session of, erm, sharing and connecting was really, really useful.

KB: I was thinking because we started with a focus group, there was an intimacy in the group and I think that helped when it came to the following week and we were doing the sort of... the sort of, lessons ... the fact that we'd already had this heart-to-heart – for want of a better word – with each other, it kind of meant that everyone already felt like a group. Whereas I think if I had stepped in and it was like “Hello everyone, take your places, we're now going to try this thing”, I would have felt like ... I would have felt more challenged from the get-go.

The small size of the group was identified as being an important factor in providing opportunities for women to speak up, engage in meaningful conversations with one another, and develop connections.

JMM: I also want to say, like... this may not be the right thing, but the smaller groups help a lot as well because you can then move and enjoy and if you're in the same kind of groups, and you already kind of get to know each other, it's a bit easier than if you're in a massive group and you wanna ask a question, you feel like you're inconveniencing people ... that it's kinda nicer.

TB: actually having... breakout groups, I found really helpful. Just speaking to a couple of people, I feel like we had a proper conversation. Whereas in

the big group, it doesn't always feel like that. Erm ... yeah, so I think that helps, just how you feel about, erm, getting involved and making mistakes and things like that. [...] So it's kind of like small groups, but also little smaller groups within that and opportunity to talk, not just dance.

The opportunity to discuss different ways of conceptualising wellbeing and how to take action to enhance it was seen to be particularly beneficial. There was a sense that engaging in discussion and reflection produced greater benefits than simply taking part in the dance workshops. The responses suggest that it was important for the participants to delve deeper into their experiences and understanding, and that by doing so, they felt more able to take ownership and accountability for their ongoing wellbeing.

ARR: It was that combination of thinking about wellbeing and wellbeing being important, recognising that fact with a group of other mums who also shared that, those ideas ... and then putting it into practice by saying "actually, this is five minutes for myself". I think that was it.

TB: I think having an opportunity to chat as a group about these things, erm, like, I'm feeling like I'm getting more out of today than I got out of the dances that we did. Getting ideas of things that I might want to do and that kind of, we could have done it in a WhatsApp chat ... I might not have really taken those ideas on board as much.

ARR: But it hasn't just been about movement because it also helped me to think more about the fact that I was getting quite hangry by the end of the day because I wasn't eating enough at the beginning of the day and then I'm eating too. Much in the evening and I'm not sleeping enough. So it was, like, actually, I need to really sort out my nutrition so that I can be the best person for him as well as just for myself and my wellbeing. So, it had an impact on that to, on my eating. So I'm now You probably saw me, I've always been snacking the whole way through the day. [laughs] ... It was the focus group at the beginning where you asked us about wellbeing and what it means

made me really think about my wellbeing more and then actually that first dance session where I chose to let IB do his own thing so that I could do dance which was entirely for myself at a point in time when I'm looking after him, which I don't think I'd really done previously. I'd always been more focussed on him or household chores that need to be done. This was an actual choice. "Actually, I'm going to do this dance. I'm going to do this routine and IB can play in the corner, that's fine.

Beyond baby

Having identified a feeling of their world shrinking and becoming *all about baby* in the postpartum period, one of the outcomes of the intervention that was especially valued was the re-opening of their world, as the women were able to engage in an activity for themselves. Through this process, they were able to find meaning and a sense of identity beyond that of *mother*.

ARR: maybe that switch from our meaning for life as mums is quite often about our babies and their wellbeing and their upbringing and maybe this has helped that switch to thinking about motherhood as being, like, a really important side of that. It's not just the focus on the baby, the sacrifices, it's the making sure we're healthy, we're on top of our game, we've got other things beyond baby to keep us as whole persons. And reminding us ... you're still a person, you're still a human, you've still got all those abilities and wants and engagement and things you can do beyond baby. ... this part of our lives is one part of a whole long continuum and it sometimes feels like you're completely divorced from the rest of the world and it's just you in your bubble with your baby going crazy. Things will get better and we're part of something with other people. We're doing the same thing, we're seeing each other kind of dash off and being like, "I'm sorry, I have to go off and do that", you know. That's quite good as well, to reinforce that as well; that we're all together in this crazy period that we go through.

JO: It just reminded me ... if I do manage to have time for myself, it does make me feel so much better and it does make me feel like ... I can do things again ... I can still do what I did before I was a mum, because I know that makes me feel good.

One of the key factors in developing a sense of identity *beyond baby* was the mothers experiencing the benefits of taking time to participate in an activity that they benefitted from, without excluding or ignoring their baby. They described feeling a sense of validation as the activity reinforced the importance of taking time to engage in activities that benefit their mental health.

ARR: I feel like it's validated my need to make time for myself. So, I always knew I should but knowing you should and doing it are two different things. Whereas, having this session where, well, the first session I kind of ignored IB for parts of it so I could do some dancing, and the second one he slept, so I could actually do some dancing, that was great, and then the third time he was having a terrible day and I had to leave early. So, they were all different experiences, but they really made me feel I should, and I need to, make time for myself. Preferably to move.

KB: Even though it's for me and my wellbeing, it's for my mental health, because of this little guy attached to me [laughs] I wouldn't be able to separate myself from him. So being able to do this with him by my side is the best thing I could do for my mental health I think.

Having experienced the positive effect of making time for themselves to take part in the dance sessions, the women also started to recognise the value in building this into their lives, and communicating this need to their partners so that they could support and facilitate this to happen.

AT: Yeah, I ... I feel that it's had ... it's given me a reason to ... to step out and do something for myself and actually that's had a really positive ... positive,

erm, reaction ... my husband's felt like, "Ok, she needs to go and have a little bit of time away. ... it's given me that opportunity and that has really helped it's almost been a bit of a shift for us. ... [My husband said], "Right, I'm going to make sure I take him so you can do something for you then." ... it's really helped us then in terms of our relationship cos I've ... we've got a bit more of a kind of, a respect, so that's good.

ARR: Erm, back to the idea of short bursts, something it has helped me do is – I enjoy sewing and I've got a little sewing nook set up – and like yesterday I made an effort to say "Oh good..." – you know, my husband was down – I had 20 minutes sewing time. That's not very much, but just being able to take those short bursts and say, "This is me time, it's not house chores, it's not anything else... I'm going to have 10 or 15 minutes where I can just for me and my wellbeing". So that's helped. I think it's that whole validation thing that my wellbeing is important, so I need to make time for it.

JMM: I'm spending most of my time with RM but I think with these [sessions]... she can actually spend time with [her Dad] and I don't need to worry about it. So, it's been nice for him ... well, to recognise that I need time for myself ... to just relax and let him get on with looking after her. ... But just to know that ... understanding between us that I need time to myself as well.

The mothers recognised that in looking after themselves and better understanding their own needs, they were better able to care for their child. Being encouraged to reflect on the factors that contribute to wellbeing allowed participants to take a step back from their problems and consider how to resolve their difficulties. In the quote below, the impact of this is described, as one of the participants identifies how being able to reflect and take action has helped her to feel better emotionally. She described her belief that improving her own emotional wellbeing and sense of self-efficacy has had a positive impact on baby as they are both *happier*.

AT: So for me, at the start when we did the very first focus group, I was in a really bad place. I was really struggling. He had really bad colic the first 12 weeks and it was pretty relentless and I'd been finding it really difficult. [The intervention] allowed me to say "Right ok, why is it getting to me so much? Why am I finding it so difficult?" and then putting things in place that, y'know, that I was enjoying and that I was doing to look after myself has then helped him ... I feel like he's happier too because I'm happier and so, erm, that's been really, really big for me. I think, like in comparison to how I felt at the start of this, I feel a thousand times better. [...] which is great. [...] two weeks ago, I was getting so frustrated and I was getting irritated with him and whereas now, I'm "Ok, yeah he's upset but that's ok" and so I think that's ... that's been a big thing.

Being able to reconnect to their identity and find ways to keep themselves *healthy* emotionally, psychologically and physically enabled women to see beyond their role as a mother. The value of this is described in the quote below in which one of the participations articulates how thinking in those holistic terms enables them to feel like they are *still a person* with abilities notwithstanding who she is as a mother.

ARR: It's not just the focus on the baby, the sacrifices, it's the making sure we're healthy, we're on top of our game, we've got other things beyond baby to keep us as whole persons. And reminding us, maybe a bit more, that maybe, people who used to do a bit of dance before, it's reminding you you're still a person, you're still a human, you've still got all those abilities and wants and engagement and things you can do beyond baby.

Intervention Design

This theme describes the elements that were identified during the focus group discussions as being important to the design of the final intervention and how this might support wellbeing. In *Maximising movement*, the mothers discuss the possibilities for integrating dance into their daily lives. Routine is identified as being a key factor, not only in relation to how dance activity

might fit into daily routine, but also how daily routine might be supported or enhanced by the inclusion of dance. Having activities available in different formats was also key to being able to maximise movement opportunities. These different formats represent different points of access for the women, including live sessions, postcard activities, podcasts and videos. *Tailored teaching* describes how adopting a bespoke, responsive approach to delivery (that was supported by technology), resulted in greater feelings of self confidence and connectedness. In *Embedded reflection*, the mothers discuss and describe the benefit they found from reflective opportunities being part of the practical sessions. In addition to reflective activity increasing their awareness of understanding of wellbeing, it also helped them to identify and take steps towards making changes or trying new approaches outside of the sessions.

Maximising movement

The lives of new mothers are busy and, as expressed in the earlier theme discussion, their time can easily become consumed by their baby, with little time to think about their own needs or making time for an activity from which they could benefit. Therefore, the women identified that any dance intervention needs to be able to fit into moments throughout their day. The theme *Maximising movement* captures their thoughts and ideas around capitalising on opportunities throughout the day and also acknowledges that for this to happen, mothers need to be able to fit movement activity in and around their baby. This section opens with the quote from which the theme name derives. In this quote, one of the mothers introduces the idea of building movement into part of her daily routine with her child.

ARR: if I want to get more music and more movement into my day, I've got to have some things I can do with him that will work for both of us. Putting a track on whilst we get dressed, that's an everyday routine, then I would build it up, so it would be maximum, erm, dance and movement, just by doing some for him, some for me, some for duets ... I think if we're maximising movement we've got to do some with the baby.

Maximising movement in the lives of the mothers would also mean, by default, that baby would also be exposed to these experiences. Dance was also viewed as a way in which they would be able to engage and interact with baby. Having a movement activity or *routine* would

help mothers to better deal with difficult parts of their day, when they might be low on energy, struggling to entertain their child, or simply need a change of pace.

KB: a routine to follow [...] kind of help in those tricky moments. Be it getting dressed or just [laughs] killing time to some extent. Because there's hours and hours when you're on your own and when they're really little, they don't do that much and y'know, they can't ... dance is a really nice way to interact with them. And I always treated it as something to bounce around with, but something slightly more formalised could be really nice.

JO: I'm exactly the same – I work but I'm also, I don't know what to do with her half the time. I try and fill her day with activities [...] something daily that we do that is part of our routine would really, yeah, would definitely benefit.

The mothers also identified that different types of movement activity could help them (and baby) at different times of day. In the following quotes, two mothers discuss the times of the day they particularly struggle with. The first mother describes how bedtime is a time of day when her stress levels are particularly high. She suggests that performing a gentle movement routine at this point in her day would be a tool she could use to assist her in calming both herself and her baby. The second mother identifies another pinch point in the day when stress levels might rise. She states *he hates getting dressed*, indicating how this experience might be difficult for her as she needs to manage her child's distress. Her reflections suggest that being able to utilise dance in the form of something her child *loves* – routine – would result in a more positive and enjoyable experience at that point in the day.

JC: it would be really nice to have ... a routine, a really chilled one that you can do like as a bedtime wind down. So, you know, especially if you're putting a certain track on and it's really relaxing, then if the baby's grizzly, it can take your stress levels down, which will take the baby's stress levels down. [...] so I was just thinking, y'know, I might try and work something like that out, incorporate something like that.

ARR: one of the times of the day I struggle quite a lot is getting dressed, because he hates getting dressed. So I don't know if there's kind of like... I don't know if it would be more like a dance for him, dance for me (?) but something to have as a routine... cos that would be something I could do every day. I play a certain track and we get dressed, you know maybe we do some boogie while we do it. He loves routines. That's the kind of thing I could build in and I would remember.

In the focus group, the mothers' discussion began to further build upon the idea of using points in the day as opportunities for maximising movement. They were able to use their experiences of the practical workshops to suggest how movement could be incorporated into their day.

ARR: I would say maybe the Daily Dances need to be kind of organised by points in the day so you could have like, the rubbing and that as the Mums' thing to do maybe before baby wakes up or if Dad's doing wake up or something. Like, that's a mum thing only, for mum to do when she has time and then there's wake up with baby, then there's the exercise session could be a joint one if it works and there could be when that baby's napping, this is your mums' session. So, there's kind of distinct sessions.

Having "reminders" would help to integrate Daily Dance activities into their day

ARR: perhaps if they were available in some kind of really short, post-it note, card ... you put one by your kettle to remember when you're doing your cup of tea, cup of tea dance ... dunno, just to remind. Even, alternatively, some kind of voice note that can guide you through, maybe with the playlist, so you have really short couple of tracks, with the Daily Dance as a voice reminder. ... I think if it was something I could stick, like say, I don't have a dog, but if I was taking the dog for a walk, I could put it like with the lead for the dog so it's like, "Oh yeah I'm going for a walk, I need to remember to do this, or take my track or something. If I had one next to my kettle, remember when I'm pouring a cup of tea, do a Daily Dance so like a nice

short ... shorter and compact ... just because time is such a thing we don't really have as mums. So just short quick reminders particularly in places you could put them. Like in the baby's playroom, you could stick one to the wall. Like, you've got five minutes, do a boogie there, y'know like the floor one, that would be really good there.

JMM: Yeah, rather than putting aside a specific amount of time maybe. You just do small bits when you can, kind of thing.

Having identified that they felt more confident and were more likely to engage in self-directed movement practice if they were already familiar with the content, it was seen as being valuable if content from live sessions could be accessed "on demand" through audio podcasts or videos.

ARR: I think the weekly session is great, when you can do it regularly. But then if something happens on a day and you miss it – like I missed most of Friday's – and I wasn't in the mood anyway, then you feel like you've missed out. But then, if I can have a podcast to listen to – oh my god, I love podcasts – or if there's like, a voiceover thing that you can play, you can feel like you can catch up on something you've missed. Cos I know like, one of the ... singing ... sing and sign or something ... they often do a certain number of sessions in the week and then they'd make it available so you've got the whole week to watch it in case you've missed it, that kind of thing, that would be quite good.

The women felt that this content could be used as a way of *recentring*, giving them easy access to the positive benefits of the live sessions, but at their own pace and a time that suited them.

KB: AB's idea of a podcast or of something you could listen to that, y'know, recentres you and brings you back to something you've done in the live session, I think that could work really well. That you could on while you're walking around or that you could put on while there's a nap so you could say, "Ok, now I'm going to take this 10 minutes, half an hour or whatever it

is, to do this session to kind of draw on what we already started earlier on in the week, or something like that.

TB: sort of related to that podcast thing. But, I know we mentioned it in the sessions before... the idea that it would just be lovely to have an audio recording of you just talking us through the rub yourself, shake yourself... or the one of the floor. Just because I found it so helpful but I forget all the different steps ... something I could listen to, stick it on really quickly, go through the motions again and then it becomes part of my daily routine, would be quite nice.

It was suggested that if this resource were available, women could set their own goals and aims for including this within their daily or weekly routines. This would enable them to take ownership of the activities that positively impact their wellbeing, by identifying when and how would be most beneficial to them.

JC: with the recordings, whether they're audio or whether they're visual, again with the dances, it would be helpful ... and then you could just dip in and dip out. Or if you've forgotten them and you want, erm, you want to go through the waltz again or the salsa again and you can just, erm, get you up for, y'know, a five minute recording of the dance and then you can just put you in the background and do it in the kitchen. And then possibly ... you set the schedule of what that should be; whether you should be doing it every day, whether you should be doing it every other day, or every three days ... you could have a ping up reminder and then you can pick the dance that you wanna do and it's pre-recorded.

Tailored teaching

The women identified specific elements in the delivery of the sessions as being factors in enhancing their experience and positively impacting their wellbeing. In this theme, the words *comfort[able]* and *reassuring* are heard repeatedly in the testimony from the participants, both

in relation to explicit mechanisms such as small group size, but also in relation to the style of delivery. as being helpful in their ability to access and engage in the sessions.

One of the specific mechanisms that made a difference to their experience of the sessions was the practice of “relaxed starts”: a thirty-minute period in which they could join, with the session beginning once all or most participants were present. Although it was acknowledged that these might be considered a *luxury* for an intervention delivered in the “real world” [outside of a research setting], it was clear that this was a significant enabler to women attending.

JC: ... managing to actually get on a Zoom call and get yourself there, erm, is one achievement ... yeah, sometimes it is an achievement and the relaxed starts have really helped with that because I think if it was set for 10 and we're going to go a couple of minutes after 10 then I think I would have probably been "Right, I can't do this one this morning because it's just not working for me" and that's really helped.

A relaxed start and a longer session time was a comfort and reassuring to the women who participated. This enabled mothers to feel a greater sense of achievement, rather than feeling as though they were missing out or “screwing up” by not being able to attend. In the quote below, the reasons behind this are articulated by one of the mothers who took part. She explains that the experience has felt *luxurious* because they have been able to have more time in the activity compared to that of other mother and baby groups. Having an activity that is not strictly time-limited is seen as offering something unique. Her description suggests that the sessions provided a place of refuge from her experience of motherhood “*where so much is hard*”, with her repeated use of the word *luxury* showing just what a contrast she believes this to be.

KB: I was thinking that actually the relaxed start is kind of a luxury that you wouldn't find in the real world in a way because to pay for something that we've experience here would mean three hours of somebody's time, is you know, that's quite a big ask ... but that's the kind of thing that you don't get [at other mother and baby groups] ... something that you can have at your

disposal ... over the course of a morning, erm, feels quite, feels luxurious. [...] I think the thing that we've all appreciated, including the relaxed start, is the sense that ... that we can drop in and out without feeling like we're screwing ourselves over. That sense of ... comfort is very ... soothing for us mothers ... Where so much is hard ... having an extracurricular activity that is chilled out and relaxed but still providing the kind of things that we've all sort of described, it feels ... really nice.

The women found being in a virtual space less intimidating than attending a studio or in person venue. In the following quotes, the mothers identify a lack of self-confidence through use of the phrases *self-conscious* and *completely exposed*. They suggest that going to an-person venue where they had to perform in front of others would create a sense of pressure. They identify that being able to focus on the workshop leader on the screen takes the focus away from their actions, allowing *release* and behave *naturally*.

KB: I've probably felt more, or rather, less self-conscious dancing as a little square than feeling completely exposed. I think it would take me a few sessions to ... to not worry about feeling how I was looking, whereas with this, I just didn't have my camera on me so I didn't... I wasn't looking at myself, I was just focussing on what you were doing and what I was feeling and y'know, I really... I really liked the Zoom format.

JC: Yeah, I'd second that. I think it was just ... I think I'd be far more self-conscious if we were in a group in a studio, erm, and therefore you kinda ... yeah, when you're just a small square and you just go to, erm, you know the main view, it's, yeah, it can... release a bit more. And then you've got the security of being in your own home as well which means that you don't get out but ... there are plusses and minuses to everything and, I can see ... this could work well on Zoom going forward out of the pandemic.

JO: It feels really natural. I mean, as you can see I'm walking around in pyjamas, cooking, whilst being part of a group [...] I think that Zoom is really

wonderful and you don't feel that people are staring at you, you don't feel vulnerable because you're in the comfort of your own home.

TB: I think, actual dances and stuff, personally, isn't probably, not my thing [...] I find it really stressful. [...] because the more I think about it, the more I can't do it. [...] So, I think I would have found it quite stressful going to a group if it was in person cos I'm just not going to get the moves right.

It was identified that a small group size and opportunities to engage in breakout rooms was beneficial and reassuring. Breakout rooms were seen to be especially crucial in facilitating the bond between participants. By establishing a connection and bond in a more intimate setting, this had an impact on their self confidence in the main sessions, which reduced some of the anxiety around participation.

TB: Breakout groups, I found really helpful. Just speaking to a couple of people, I feel like we had a proper conversation. Whereas in the big group, it doesn't always feel like that. Erm ... yeah, so I think that helps, just how you feel about, erm, getting involved and making mistakes and things like that. [...] So it's kind of like small groups, but also little smaller groups within that and opportunity to talk, not just dance.

The flexibility of being part of a small group was also valued. Being able to build a relationship with the facilitator also contributed to participants feeling more secure and less self-conscious. A flexible and responsive delivery style also contributed to feelings of comfort and reassurance. In the quotes that follow, the participants provide examples of how working with a workshop leader who responded *intuitively* to their needs facilitated some of the benefits to their wellbeing. They suggest that there is a sense of *comfort* that comes from building a relationship with one facilitator.

AT: It was really great to be a little flexible. I guess that's the nice thing about it being delivered in this way, it's a relatively small group ... we all said, "Urgh, we're all really struggling, we're all feeling really achy and sore"

... so you changed your plan and you did something completely different and that was really really nice.

KB: ... talking about luxury ... I think that's the thing – the live element of it is really beneficial. Partly because it's structured and it's led but it's kind of, erm, it's ... erm, it's intuitive from you. I think that's what makes this different from an online yoga session or an online chat with NCT friends or something like that, or a quiz. It feels tailored to us specifically.

AMR: I really like the way ER is genuinely caring and interested in how we are all feeling and what our experiences are and how they have changed. [...] ER was very responsive and thoughtful of our needs.

ARR: I was thinking it could be cool to have something like specialists in the different dance techniques showing but then doesn't that take away from the fact that we've built a relationship with you? So if you have one leader means you have a good relationship with that leader. So, if you're bringing in specialists, you wouldn't want to replace that relationship because one offs mean you don't necessarily build that.

JMM: Yeah, I agree with that, because if you have the same person leading you, you feel a lot more comfortable and you're able to enjoy it a lot more and relax and move without caring.

Embedded reflection

A key feature of the intervention that was seen to contribute significantly to wellbeing outcomes was the psychoeducation around wellbeing theory and different frameworks for conceptualising wellbeing. Using this knowledge to embed active and intentional reflection into the sessions reframed the way that the women thought about their wellbeing. In the quote below, the significance of this is demonstrated as one participant describes the *lightbulb*

moment when she started to think differently about her difficulties and how she might be able to take action to change her experience, using the PERMA framework.

AT: So, for me, at the start when we did the very first focus group, I was in a really bad place. I was really struggling. He had really bad colic the first 12 weeks and it was pretty relentless and I'd been finding it really difficult. Actually, the first focus group was massive for me because I really took quite a lot from it. That PERMA, that attitude and that sort of, definition of wellbeing kind of re-framed my thinking and I was like, "Ok, I've gotta change how things are". [...] So I actually feel a lot more positive. And actually, I feel that that lightbulb moment, that PERMA thing has really resonated with me and, erm, I kind of feel like I can take that forward and kind of structure ... think about it in a different way ... almost like scale back some of the things that I think I should be doing, but actually say, "well actually, if I work on those things, things are going to get a bit easier."

The women felt they became more aware of their own wellness needs as a result of the group discussions and that learning about wellbeing helped them to reflect and take action. This is described in a step wise manner by one of the participants below: first, she began to *really think* and take stock of her own wellbeing in relation to the discussions about the definitions and wider meaning of wellbeing; next, she made a conscious decision to do something (the dance workshop) that she thought would have a positive impact on her wellbeing; finally, she reflected on this with the other mothers in the group, which helped to reinforce the value and importance of doing something *for [her]self*.

ARR: It was the focus group at the beginning where you asked us about wellbeing and what it means made me really think about my wellbeing more and then actually that first dance session where I chose to let IB do his own thing so that I could do dance which was entirely for myself at a point in time when I'm looking after him, which I don't think I'd really done previously. I'd always been more focussed on him or household chores that need to be done. This was an actual choice. "Actually, I'm going to do this

dance. I'm going to do this routine and IB can play in the corner, that's fine. Y'know, he's not hurt or anything..." well, until he fell off the sofa ! [laughs] that's fine. It was that combination of thinking about wellbeing and wellbeing being important, recognising that fact with a group of other mums who also shared that... those ideas ... and then putting it into practice by saying "actually, this is five minutes for myself". I think that was it.

Having recognised the value of reflecting on their experiences within the group, it was felt to be important to combine live sessions with a reflective element. It was further suggested that discrete reflection sessions could be included within an intervention separate, or in addition to, the practical workshops, as self-directed reflection would not have the same impact.

JC: I think the reflection and the connection of the live sessions are really important. I've taken a lot out of that. Whether they could be... erm, whether you could section the sessions so, whether they start with that reflection, or they start with the dancing and they go on to it. Erm, so those that do or don't want to join.

TB: I was thinking it might be better, rather than once a week, which is quite a long gap in between; if there was maybe a once a week session, but maybe a second session, perhaps a little bit shorter and perhaps focussed on reflection and, erm, chatting about wellbeing and talking about, "has anyone tried any of those daily moves?" and "what worked?" and sharing ideas with other mums about what helped wellbeing that week, related to the moving ... to the dance stuff. [...] So that you've got ... I think that chance to reflect has been a really helpful part of this process. I've been to ... I go to baby yoga for example and I get a lot out of that, but I think if I were to meet up with those mums and reflect on what has worked for us that week from the yoga and what we've incorporated at other points in the week and then ... we got ideas ... and then, as we talk about it, people have said stuff and I think, "Actually, I should try that tonight" You know, that's beyond that

session that's .. and I think that would really help to embed it because I think if you're just ... if you're really trying to improve wellbeing, just a one week, once a week dip in and out isn't really gonna do it and I think the reflection as well is so important and that opportunity to share with other mums what's working and what isn't.

KB: I really think TB's point of ... of like a main session and then something that follows up that holds you accountable, that kind of reminds you to check in emotionally and mentally with all this stuff you've been focussing on is a really good idea.

JC: Erm, yeah, for me, erm, an exercise book or you've got the reflections and you need to do it, I'm not even contacting some of my nearest and dearest because I don't have time! And that's priority and that's wellness. So I don't feel, for me, and yes, I'm in the early stages with EC... erm, I wouldn't do it, because I'm not managing to do so much other stuff that I know I need to do.

ARR: I really agree ... Especially TB's idea of the ... early in the week you do one thing, learn and you dance or something; and then your second session, you maybe practise the dance, reflect on what you've done in the week maybe your own little daily dances and stuff. I agree it has to be a live thing. I think it does ... it's just more valuable in a way.

Discussion

The aim of the thematic analysis was to better understand (i) what maternal wellbeing means to a maternal population and (ii) what impact a dance-based intervention has on maternal wellbeing. The purpose of understanding this was to then use the findings to inform the design of a dance-based intervention for maternal wellbeing.

The reality of maternal wellbeing

The women expressed that, whilst there are definitions for wellbeing that can be applied to general populations, they did not feel that these definitions were as relevant or applicable to a maternal population. They cited that the reasons for this were related to the additional challenges of motherhood, with some of these being: the additional caring responsibility, lack of sleep, disrupted or unpredictable routines, and difficulty continuing with some of the activities they had enjoyed before becoming a mother such as uninterrupted time with their friends or partner and engaging in creative pursuits or physical activity. Time was also a recurring narrative: with the mothers stating that they felt as if they did not have as much time as they had previously to engage in meaningful activities, citing the main reason for this as being that their time was consumed by looking after their baby.

Many of these concerns are echoed in the literature, with the difficulty in adjusting to life in the postnatal period being attributed in part to the change in identity that arises when a woman goes through the transition to motherhood. From an anthropological perspective, Kaufman and Morgan (2005) describe how the “making and unmaking” of a person(s)’ identity is often tied to the beginning and end of life and conceptualise childbirth as a “site at which personhood gets negotiated” (2005, p.322). In the context of motherhood, a woman’s previous identity of an individual is unmade, whilst a new one is made. These changes to personhood result in the perinatal period being a liminal space where the woman is balancing her shifting personhood and negotiating the unmaking and making of her identity. Indeed, it could also be argued that as the woman unmakes her previous identity, she may feel a sense of grief or loss at the person she once was. Zauderer (2009) posits that, due to the intense hormonal, biological and psychological changes that women go through during pregnancy, labour and birth, having a baby and becoming a parent is perhaps the most significant life experience a woman will encounter (Zauderer, 2009 p. 23). Shifts in routine can also lead to decreased psychological wellbeing and “fluctuating affect” (Cramp and Bray 2009, p.344). Alongside this, it has been argued that the transition to becoming a mother is a metamorphic “ongoing process of identity-making” (Boyer and Spinney 2015, p.5), in which women are grappling with their new identity as mothers. Women are simultaneously needing to cope with

the physical changes to their body resulting from pregnancy, labour and birth, whilst also coming to terms with the practical and psychological demands of additional caring responsibilities against a backdrop of an unpredictable hormonal and emotional state.

In the maternal wellbeing theme, the mothers also discussed how they felt their world, including conversations and activities, became all-consumed and controlled by baby. The concept of overwhelm is discussed in a paper exploring perinatal anxiety in the digital age (Harrison et al. 2020, p.9). Within these narratives is the notion of a lack of control. Discussing the maternal transition period, Darvill et al found that women felt the impact of the maternal transition period on their sense of self-concept and identity up to the point at which they felt that they had “regained” some sort of control over internal and external environments (Darvill et al 2008, p.364). Furthermore, it was stated that the act of bearing a child “fundamentally transformed” the women and their partners from their previous identity as an individual or couple, into that of a family (2008, p.360). The mothers in this study expressed difficulties balancing the “demands of motherhood with those of everyday life” (2008, p.360) It was found that conversations “fell into before/after childbirth narrative” with women making comparisons between what they used to be able to do pre-motherhood, and stating that it was harder to find time for those things, including being able to look after themselves (2008, p.360) This resonates with the findings in the themes *motherhood threatens wellbeing* and *baby takes over*, where the mothers express that they are no longer able to engage in certain activities, such as getting a fixed amount of sleep, because of the lack of time and change in priorities.

The mothers in the study across discussed a dichotomy between the reality of motherhood and the ideology of what motherhood should be, as one of the ways in which motherhood threatened wellbeing. They expressed feeling the pressure of societal expectations and self-imposed expectations that perpetuated a narrative that they should be able to be superheroes who are perfect mothers who should be able to do everything, including caring for their baby and household duties. Hogan (2017) writes that “new mothers are caught in a web of intersecting and conflicting discourses, practices and experiences which render the experience unstable” (Hogan 2017, p.53). This seemed to hold true for some of the women who expressed that they felt unable to achieve *Instagram ideals* of health and wellbeing. This further resonates with research carried out into perinatal anxiety in the digital age (Harrison et al 2020)

in which it was found that social media was a “source of anxiety, as it promoted unrealistic expectations of motherhood through social comparison” and that they felt under “significant pressure to be the ‘perfect mum’ and do ‘the right thing’ “(Harrison et al 2020, p.7). Harrison et al also described mothers are fearing judgement from others, which echoes the voices of the women in these focus groups as they expressed a reluctance to ask for help from friends or family members for fear of being seen as *not a good mum*.

Dance and maternal wellbeing

The findings suggested that dance contributed most to improvements in wellbeing within the emotional and physical domains, with less evidence from the focus groups that taking part in dance activity had improved psychological wellbeing. The responses suggest that dance activity can have a positive impact on emotional state, particularly positive affect such as happiness and increase feelings of energy. This in turn had an impact on motivation, focus and productivity, as mothers felt *more awake* and *energised* after dancing. This correlates with findings from the previous systematic review in which arts-based interventions were found to be uplifting, energising and produce positive emotions (Demecs et al 2012; Perkins et al 2018). The mothers reported how they used dance and movement outside of the sessions regulate or enhance their emotional or physical state. They also described replicating the movements they had learnt during the practical dance workshops to ease pain or discomfort and as an activity when they were alone with their baby. This again correlates with findings from a singing intervention in which participants described reproducing the songs they had learnt and using these as a tool to calm themselves or their baby (Ettenberger et al 2017; Perkins et al 2018).

Noticeably absent from the findings was anything in relation to the impact of creativity on wellbeing. When asked whether taking part in the dance workshops had impacted their sense of meaning, the responses did not suggest a direct link. This is at odds with some of the other literature on arts-based interventions which suggest that the arts have the potential to enable participants to find meaning and purpose (Spandler et al 2007; Teall 2007). Within maternal populations, it has been suggested that engaging in creative activities and being able to express oneself through arts-based activities can support within in the transition to motherhood, as they are able to “express dimensions of the maternal experience that are outside the scope of verbal exchange” and traditional perinatal care services (Crane et al 2021, p.333). The lack of

findings in this regard may be in part due to the short amount of time that mothers spent dancing. A longer period of experiential workshops would have provided greater opportunity to introduce participants to different creative approaches, which may have then encouraged them to explore approaches to non-verbal understanding through embodied awareness. It may also be a reflection of the methodological approach and the focus on designing a product, rather than considering longer term outcomes that arise when greater weight and attention is given to the process. Given the evidence around the shift in maternal identity and difficulty transitioning to motherhood, this could have warranted further exploration.

There was some evidence that engagement in dance activity had benefitted the mothers in the domain of psychological wellbeing. They expressed that mastering and executing dance steps gave them a sense of achievement, adding weight to the argument that the achievement opportunities provided by arts activities can improve confidence and motivation (Teall 2007, p.37) and corresponding with similar research findings on arts-based interventions for maternal wellbeing (Demecs et al 2002; Perry et al 2008; Perkins et al 2018). In the theme *conquering baby brain*, the women discuss feeling both achievement and empowerment, and also a feeling of improving cognitive functioning, including memory and spatial awareness. Although the evidence within this set of data is limited, there is a strong evidence base to support the use of dance for improving mental agility by activating our cognitive pathways (Lovatt, 2020, p.76).

Understanding the impact of the intervention on the mothers involved

The mothers in the focus groups reported that the intervention impacted on both their individual sense of identity and their sense of self in relation to others. Their improvements in their individual sense of self were linked to the feelings of achievement and empowerment, as well as being able to engage in *non-baby* activities. It has been suggested that arts-based interventions can allow participants to strengthen or align their self-image in relation to others (Spandler et al 2012, p.208), and some of the responses suggested that taking part in an intervention with others helped mothers to feel that they were part of a wider community of women with shared experiences and challenges, reflected in the theme *sisterhood*. Peer support is a key theme across the literature on arts-based and non-arts-based interventions for maternal wellbeing. One of the needs identified by as being important during the maternal

transition period was that of social support. It has been identified by Darvill et al (2008) that social support is especially important during the maternal transition period. Specifically, women benefit from the presence of a mentor(s), who not only guide them through the transition, but also serve to *normalise* their feelings and experiences. “New mother talk” was found to be especially important, as it was a way in which women could informally share information, which was found to be the most valuable source of support (Darvill et al 2008, p.363). Further studies have found that high levels of social support and sharing experiences with peers can enhance wellbeing by reducing rumination and symptoms of postnatal depression (Harrison et al. 2021) and that “authentic peer experiences” can reduce symptoms of postnatal anxiety (Harrison et al. 2020, p.363).

Chapter summary

The findings from the thematic analysis suggest that a bespoke, tailored programme is what would be most beneficial for maternal wellbeing. An intervention should combine dance and movement with time to reflect on wellbeing and make intentional and purposeful changes to routine. Women taking part in the intervention would benefit from opportunities for peer support and this should be led by an experienced facilitator, who is able to be responsive and flexible to the needs of the group.

CHAPTER SEVEN

Moving through motherhood: a dance-based intervention for maternal wellbeing

Chapter overview

This chapter builds upon the results of the previous two chapters to present the proposed intervention design. It discusses the individual components of the intervention and how these reflect the results and decisions from the co-design process and relate to the themes presented in the previous chapter. Whilst reading this chapter, the reader is invited to refer to the creative component of the thesis, available via Padlet.

Introduction

When discussing different elements of the intervention at the end of the final focus group, the participants were asked: What does the intervention look like?

(ERC) Is it six weeks of live sessions? So, once a week you do an hour and a half, with a relaxed start, with a practitioner [...] is there a blended approach? [...] an opportunity for you to be given some information about maternal wellbeing? [...] to be sent some postcards of Daily Dances and then maybe you do some introductory live sessions. Are there videos? Are there podcasts? Are there audio recordings? [...] [I'd like to understand] what components we might be able to use to build this intervention.

(ARR) All of them! [laughing]

In the thematic analysis in the previous chapter, three main themes were identified as being important to the design of the final intervention: *Maximising movement*, in which the discussion primarily centred about the content of the intervention; *Tailored teaching*, whereby the mothers identified the importance of feeling comfort and safety and being able to engage in an intervention that catered to their needs, specifically at this unique stage in their life and how this might influence the delivery of an intervention; and *Embedded reflection*, where they

suggested that distinct opportunities to reflect and share their experiences verbally with the group were a key factor in facilitating and enhancing their overall wellbeing.

These themes and the suggestions made by the co-design group have fed into the development of the intervention, which has several different components, making up a suite of resources. Whilst some of the components may be able to stand alone in isolation, the intervention has been designed in such a way that there is synchronicity between the resources. The intervention comprises:

- a programme of live online dance workshops, delivered weekly for six weeks;
- opportunities to reflect built into the sessions, and a second weekly session dedicated to reflection and sharing of experience, supported by a programme journal for mothers to record their thoughts and experiences;
- Daily Dance postcard resource for mothers that provide suggestions for ways in which they can incorporate movement into their daily routine;
- A series of podcasts that talk mothers through a movement activity.
- Videos that recap taught repertoire from the live sessions for mothers to follow, either as a way to recap what they have learnt, or to catch up if they have missed a live session.

Resource platform

For the purpose of the thesis, Padlet has been chosen to hold the resources that accompany the programme. Padlet may also be appropriate as a platform should the intervention be made publicly available because (i) it is free for anyone to access with a link without requiring a login or account details; (ii) it can be accessed in multiple ways: from an app via a smart phone or tablet, or via an internet browser; (iii) it can be updated in response to feedback or requests; (iv) when comments are enabled, participants are able to comment and share their experiences, facilitating social connections and peer support.

A programme of live dance workshops

At the core of the intervention is a six-week programme of live dance classes, delivered virtually. Within the theme *tailored teaching*, several mechanisms were acknowledged that reinforced the sense of comfort: online delivery, a small group size and relaxed starts contributed to making the women feel more comfortable. The mothers identified that feeling

as if sessions were tailored to them was an important factor in them feeling comfortable. Being able to build a relationship with a facilitator who is able to be responsive and “intuitive” (Participant KB) to the needs of the group in each session was also an important factor.

Digital delivery: Top tips for facilitators delivering online sessions

Be comfortable

Ensure the room you are working in is a comfortable temperature and free of clutter, so that you are not having to make adjustments in the sessions whilst participants are waiting. Ensure your room is well lit and you can see and hear your participants clearly on your device.

Remain on screen

Set your equipment up before the start of the session. Maintain eye contact with the camera and avoid wherever possible disappearing off-camera. Ensure all resources are within easy reach, including a water bottle.

Use the same room

Keep your backdrop simple but inviting and maintain the same aspect each session. Give your participants the sense of arriving and working in the same space every time.

Repetition, repetition, repetition

Build routines. The virtual space can feel uncertain and it can be tiring following along on screen if everything is new every time. Open and close the session in the same way each week. Be prepared to repeat instructions or demonstrate multiple times so that everyone has time to understand.

Keep communication channels open

Use the chat box for questions and feedback. Provide opportunities for participants to interact – this could be a virtual hug, waving to everyone, or simply a five minute welcome and goodbye when everybody has the opportunity to contribute their thoughts or feelings verbally or in the chat box.

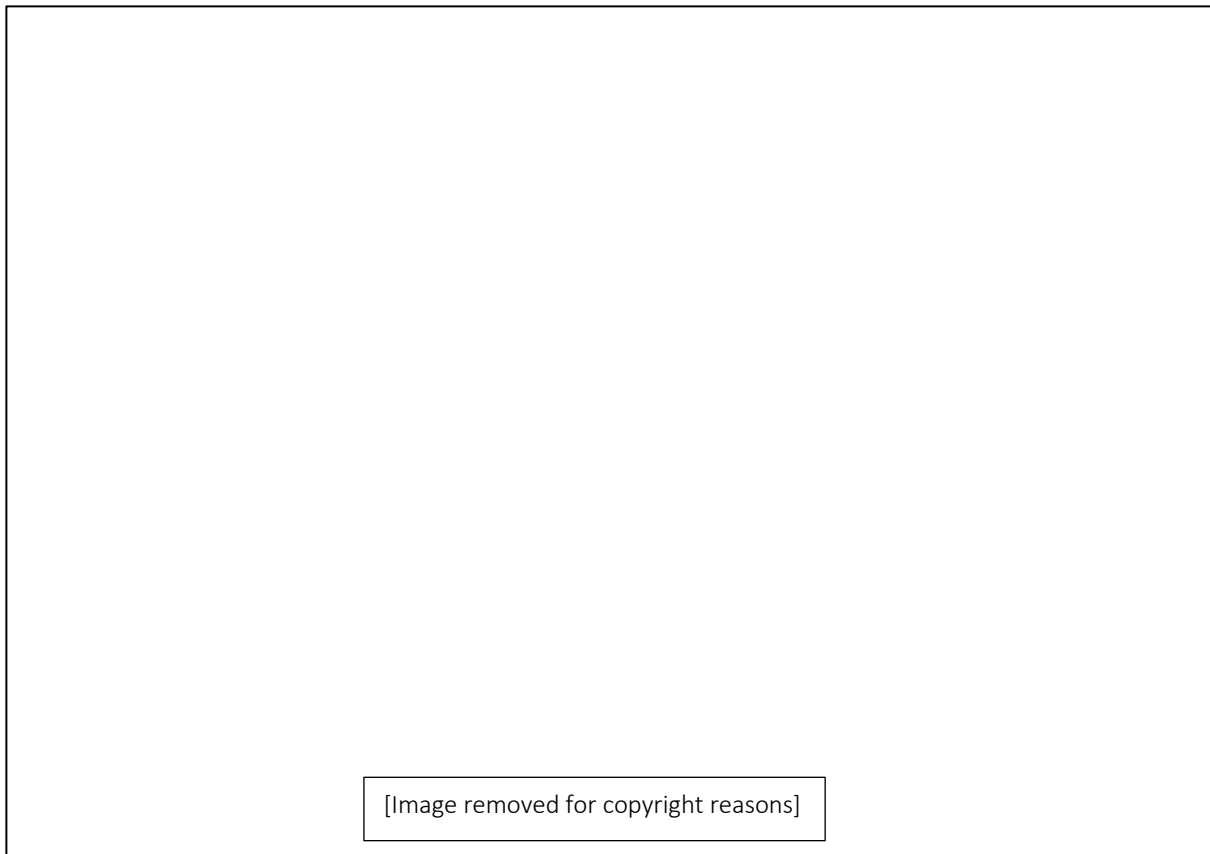
The final intervention programme has been designed with flexibility in mind, including a *People's Choice* activity on the final week. In the co-design workshops, the participants were introduced to a variety of dance styles – salsa, line dance, musical theatre – and took part in creative movement tasks, such as guided improvisation and choreography. The final programme contains an opportunity for guided creativity in the form of the structured Daily Dance tasks, as well as opportunities to move together and learn taught repertoire. The co-design group identified that they valued each component for different reasons. Creative exercises were valued for their expressive capacity, whereas taught routines were seen to be enjoyable communal experiences, whilst also providing a cognitive *workout*.

(ERC) Do you... how important is it for there to be creativity and more open-ended tasks versus [...] taught routines? Cos we've done a bit of both.

(JMM) I think for me, I kind of enjoy the taught bits a bit more where we're all doing the same thing. [...] Whereas, if we're kind of doing the same things, we're all learning that together, which is what, kind of, I enjoyed more.

(ARR) I think there's a place for both because if we're talking about ... we're trying to engage with lots of different people, different people like different things – some like the structure, some like the creativity. But also in terms of wellbeing, you've got ... you're exercising two different skills then. The creativity is you being able to express yourself in a way maybe you don't get a chance much as a mum and also the structure is exercising the part of your brain which is following routines and getting it active again. So I would argue there's a need for both of those things to be balanced.

Figure 10: Intervention programme overview



The programme starts with an introductory session, in which participants will be able to meet the group leader and other mothers. This serves two purposes: firstly, it is as a way of building connections and facilitating familiarity. This initial session was viewed by the mothers in the co-design group as being beneficial in that it helped them to gain familiarity with the group and made them feel more comfortable engaging in the practical sessions. Secondly, it provides the opportunities for mothers to be invited to consider wellbeing theory and sets up the reflective journaling practice that is embedded through the intervention.

Opportunities to reflect

A key finding from the thematic analysis was the benefit mothers derived from the psychoeducation and the ongoing reflection around wellbeing. When asked whether it would be enough to be provided with the reflective prompts and a journal for them to complete in their own time, they did not feel that this would have the same impact, or that they would find the time to do it.

JC: for me, erm, an exercise book or you've got the reflections and you need to do it, I'm not even contacting some of my nearest and dearest because I don't have time! [...] I wouldn't do it, because I'm not managing to do so much other stuff that I know I need to do.

The group agreed that “reflection and the connection of the live sessions are really important” (JC) and that this was “more valuable” (ARR) than if it was self-directed. The importance that the women assigned to this aspect of the intervention was demonstrated in their discussions around how reflection should be embedded into the programme. Therefore, in addition to opportunities to reflect in the live sessions themselves, it was suggested that an additional session later in the week would reinforce any wellbeing outcomes or behavioural changes that the practical sessions set in motion.

Supporting resources

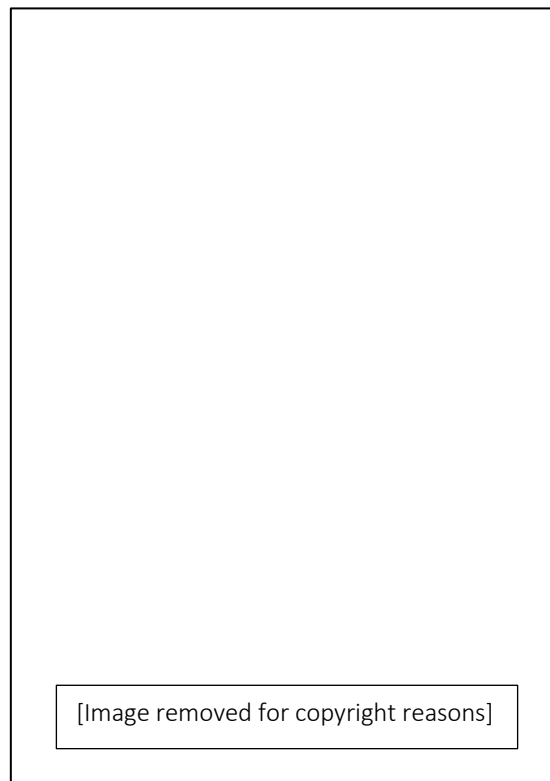
Reflective journal

A key contributing factor towards the wellbeing outcomes identified by participants was the opportunity to reflect. The thematic analysis (see Chapter Six) suggested that reflection was best when it was embedded into the fabric of the programme itself. It was also identified that the psychoeducation around wellbeing and wellbeing frameworks, particularly Seligman's PERMA model of wellbeing was a catalyst for the mothers taking stock of their own wellbeing and being able to identify actions to take forward. There are two key interactive features of the journal: wellbeing inventory and the weekly session pages.

Wellbeing inventory

The wellbeing inventory occurs at the beginning and end of the journal and invites participants to consider where they are each of these two points in time. The intention is that they would complete these in the first introductory session and the last reflection session of the programme.

Figure 11: Wellbeing inventory from programme journal



The wellbeing inventory uses Seligman's PERMA model of wellbeing (Seligman 2011), which the participants identified as being helpful in aiding their understanding and framing their thinking around their wellbeing.

(AT) That PERMA, that attitude and that sort of, definition of wellbeing kind of re-framed my thinking and I was like, "Ok, I've gotta change how things are". [...] And actually, I feel that that lightbulb moment, that PERMA thing has really resonated with me and, erm, I kind of feel like I can take that forward.

ARR: It was the focus group at the beginning where you asked us about wellbeing and what it means made me really think about my wellbeing more

The layout and questions have in part been informed by the way in which members of the co-design group responded to this in the first focus group. The two images below show the way in which one of the mothers used the five elements to reflect upon the aspects of her life she was struggling with. In relation to positive emotions, she demonstrates anxiety by asking the

question “What do people think of me”; for engagement, she reflects “hard to find motivation, often too time when I have time for myself”; and in relation to achievement and meaning, her responses “I haven't got a proper job yet” and “wasted degree” show that she has identified that achievement and meaning are closely linked to having a sense of identity and purpose from finding a job. Her reflection “I can understand by looking at this why I have been feeling the way I do” demonstrates the way this model can result in deeper understanding and self-awareness.

Figure 13a: Participant journal – applying the PERMA model to wellbeing

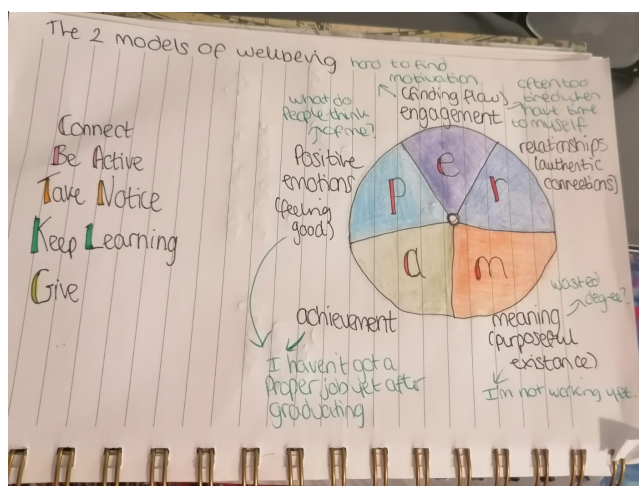


Figure 12b: Participant journal: using PERMA to understand wellbeing

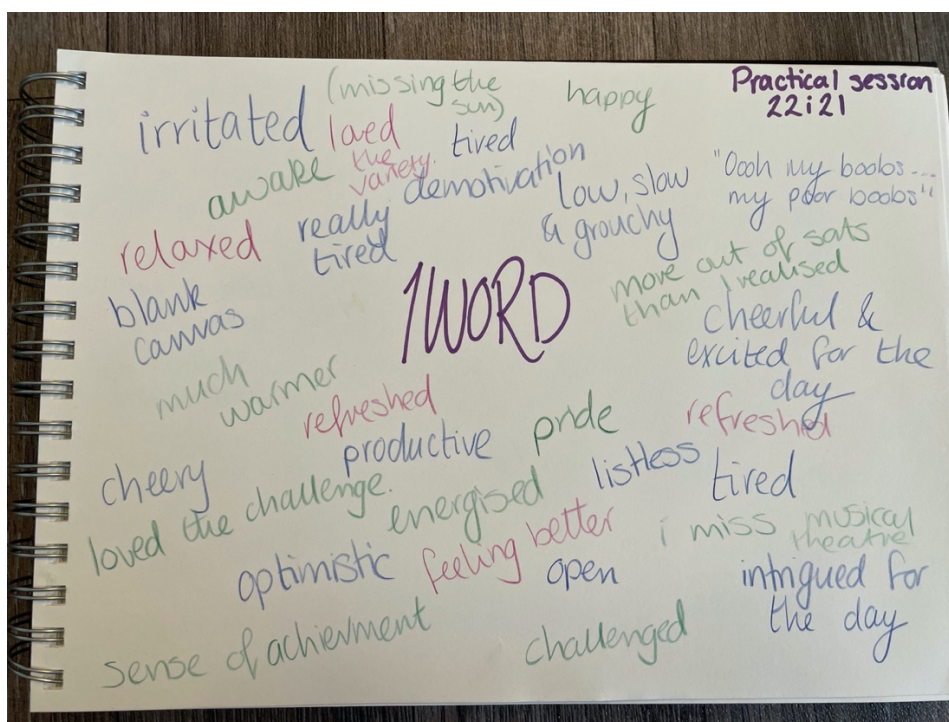
Do either of these models assist your knowledge of wellbeing?

- * The perma model makes so much more sense + speaks to me a lot more
- * I can understand by looking at this why I have been feeling the way I do.

Weekly pages

The weekly pages provide a weekly reflection for mothers. They contain a series of four prompts. Opportunity for the mothers to respond to the first prompt *one word* will be given to mothers at the beginning and end of each session. These words will also be captured by the facilitator and reflected back to the participants as a way of acknowledging changes and shifts that might occur as a result of participation in a session. Figure 14, captured during one of the practical workshops, shows the way in which this was used with the co-design group. The prompt was given three times. The words in blue (*irritated; really tired; demotivation; tired; low, slow and grouchy; cheerful and excited for the day; Ooh my boobs, my poor boobs; listless, tired; cheer; blank canvas; open; intrigued for the day; productive; optimistic*) were captured at the start of the session; the words in green (*missing the sun; happy; much warmer; loved the challenge; sense of achievement; challenged; I miss musical theatre; more out of sorts than I realised; energised; pride*) were captured at a mid-way point in the workshop; and the final set of words in purple (*loved the variety; relaxed; refreshed; feeling better;*) were taken at the end of the session.

Figure 14: One word creative capture from practical workshop



In addition to recording one or two words throughout the live dance sessions, the participants will be encouraged to record any questions that come up for them, any “lightbulb moments” of realisation, and any actions they are going to take forward. They will then have the opportunity to reflect on these in the reflection session, four days after the main dance session. The intention is that this structure will encourage them to “*check in emotionally and mentally*” (KB) and be held “*accountable*” (KB), which will help them to implement behavioural change that impacts positively upon their wellbeing.

Figure 16: Reflection prompts from programme journal

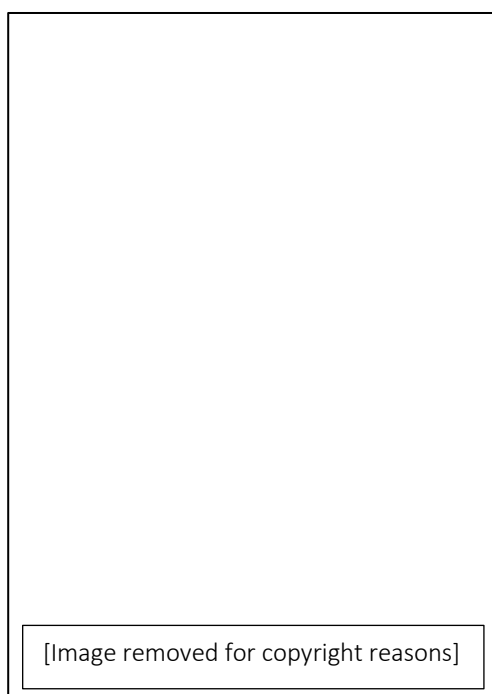
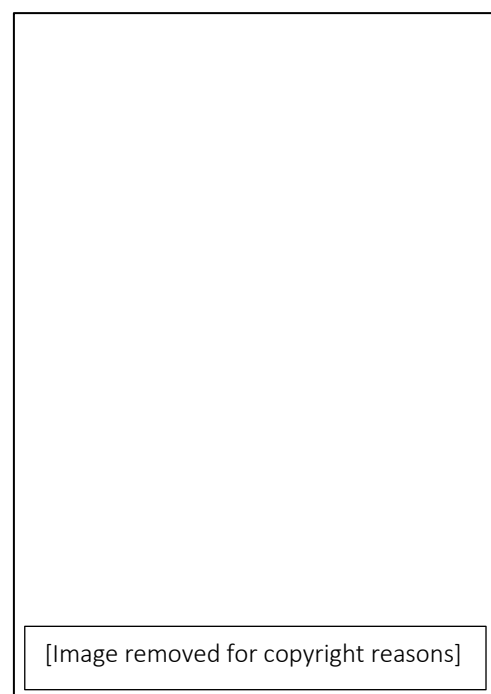


Figure 15: Weekly reflection page from programme journal



Daily Dance postcards

Daily Dances were originally devised with the intention of providing mothers with suggestions for movement activities they could perform independently between sessions. It was expressed by the participants that the first version of Daily Dances was not conducive to picking up and using at any moment. Therefore, the initial iteration was redrafted to reflect their suggestions regarding *reminders to move*, that could be available as postcards or sticky notes. From this feedback, the Daily Dances have been re-designed into a series of nine postcards. The postcard set would be given to mothers at the start of the intervention, with digital versions also available online. Some are reworkings of the originals, whereas others have been designed from the mothers’ suggestions. In the quotes that follow, the participants explain their reasons

for not engaging with the original format or Daily Dances and share their ideas for a more user-friendly format.

(KB) I remember when you were first telling me about them, I really loved the idea [...] in the busyness of things, it didn't quite occur to me to look at them again.

(ARR) I think I agree with erm, the fact that I didn't remember to look back at them. I kind of forget that they're there, having read them all, I forget about them in the moment I guess. So perhaps if they were available in some kind of really short, post-it note, card.

(JMM) For me, it is hard to remember sometimes [laughs] because you're always really busy, but ... the tea one, I found that when I'm cooking that is quite nice to do. Sometimes RM is in the highchair and it's just me and her and I can dance around the kitchen while I'm cooking [...] rather than putting aside a specific amount of time maybe. You just do small bits when you can.

(ARR) I would say maybe the Daily Dances need to be kind of organised by points in the day.

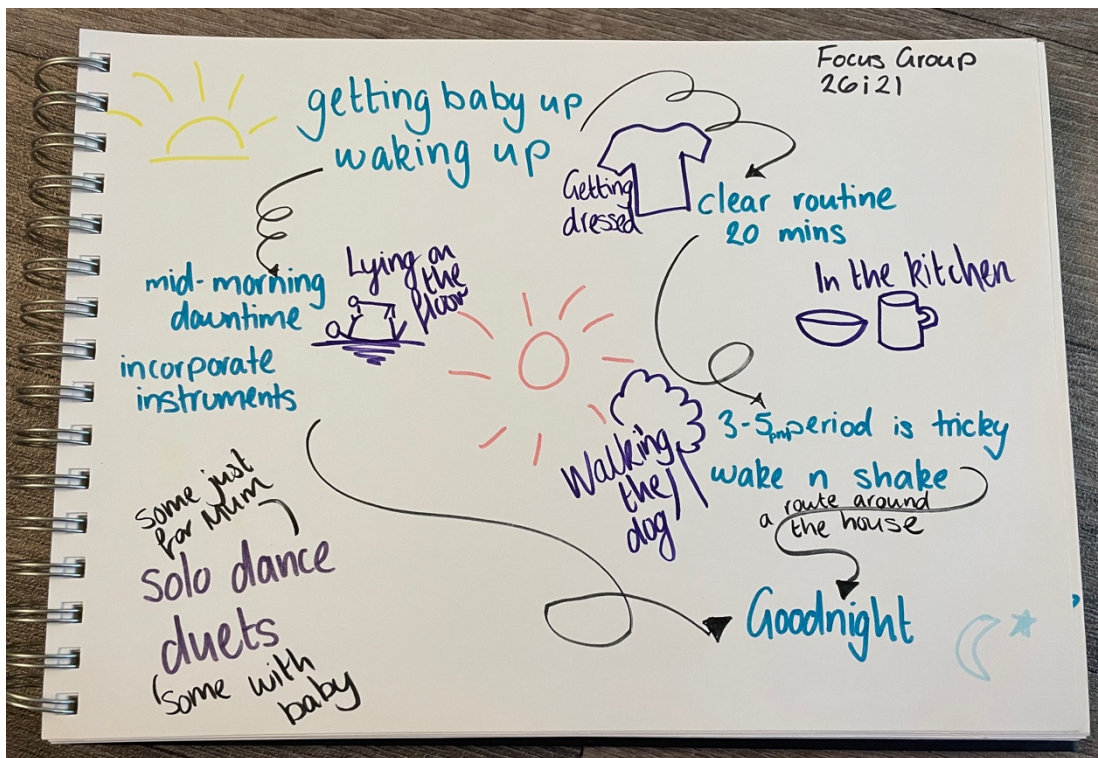
It was also suggested that the new iteration of Daily Dances could be organised by different points in the day, and have *solo* and *duet options*, as this would provide greater opportunities for *maximising movement*. Below, two of the mothers discuss the need to have opportunities to dance both with and without their baby.

(KB) It seems like there's capacity within the Daily Dances to have solo dances and duets [...] in the instructions, it sort of says "This is what you could do with your baby" and I guess you just pick what's applicable [...] Basically, because as we were saying, happy baby does kind of mean happy mum. But then having something that you can do in that moment

when they're napping or something like that is a nice combination of the two.

(ARR) I would totally agree with that. [...] the rubbing and that as the Mums' thing to do maybe before baby wakes up or if Dad's doing wake up or something ... like, that's a mum thing only, for mum to do when she has time and then there's wake up with baby [...] so there's kind of distinct sessions because I think if we're maximising movement we've got to do some with the baby.

Figure 17: Co-designing Daily Dances



Building upon the idea of Daily Dances being worked into their daily routine, different scenarios were discussed that might provide opportunities for movement.

JC: I was just thinking, it would be really nice to have, erm, kind of a chilled, I mean, I wouldn't necessarily call it a routine, I mean yeah, a routine, a really chilled one that you can do like as a bedtime wind down. So, you know, especially if you're putting a certain track on

and it's really relaxing, then if the baby's grizzly, it can take your stress levels down, which will take the baby's stress levels down. Erm ... so I was just thinking, y'know, I might try and work something like that out, incorporate something like that, just so it is a super chilled track and you're doing certain moves, which we're probably all doing anyway, just not to music. Erm, so if we do it to music, you've also got the benefit of maybe the baby – or the child – associates that with winding down and going to sleep and chilling out a bit.

(TB) Just feeding on from the idea of the bedtime routine. Erm, my husband every night [...] he puts him to bed and he sings to him while he's walking around [...] it would be nice, y'know, you could have a track, but he just sings a particular song, but he does this like route around the house. A sort of, almost like saying goodbye to every part of the house and by the time he gets to his room he's always zonked out. Erm, and that's sort of become a routine, that route. But, y'know, you could kind of incorporate that dance into kind of that route and that kind of moving around a certain way, or certain places.

(KB) I always find that when I pick him up out of his cot ... to leave the room, I go past a full length mirror that we have on the wall in the landing, so we always stop and say hello to the baby [laughs] there ... if he's a little tearful or... or grouchy, that that always kind of distracts him and entertains him and it's a nice place to kind of stop.

Below are two examples of Daily Dances that were created from direct ideas provided by the co-design group. *Hello baby* was inspired by KB's experience of introducing her baby to his reflection each morning, whilst *Goodnight world* was created in response to a discussion about the benefit of having something to support bedtime routine with their baby.

Figure 19: Hello Baby Daily Dance Postcard



Figure 18: Goodnight World Daily Dance Postcard



Videos and Podcasts

Completing the suite of online resources are videos and podcasts. The participants in the co-design group expressed that due to the unpredictability of motherhood, they would also like opportunities to access content outside of scheduled class times either to catch up on a session they had missed, or to access the benefits of the live sessions in short bursts during their week. Therefore, the videos and podcasts contain content from the practical sessions and are intended to act as refreshers, or ways for participants to re-centre themselves.

(KB) ARR's idea of a podcast or of something you could listen to that, y'know, recentres you and brings you back to something you've done in the live session, I think that could work really well. That you could on while you're walking around or that you could put on while there's a nap so you could say, "Ok, now I'm going to take this 10 minutes, half an hour or whatever it is, to do this session to kind of draw on what we already started earlier on in the week, or something like that.

It was also suggested that videos and podcasts could be used as a way to catch up on content missed during live sessions.

(ARR) if I can have a podcast to listen to – oh my god, I love podcasts – or if there's like, a voiceover thing that you can play, you can feel like you can catch up on something you've missed.

(JC) it would be helpful... and then you could just dip in and dip out. Or if you've forgotten them and you want, erm, you want to go through the waltz again or the salsa again and you can just, erm, get you up for, y'know, a five-minute recording of the dance and then you can just put you in the background and do it in the kitchen.

(TB) what JC was saying about the dance routines, I think if it was literally just ... you've taught us them in the session ... and then it was literally just you doing them as it should be, [...] then we could just follow along with that for five minutes [...]so it would just be recapping it. It would just be nice and also, it would mean that it could just be a five-minute video that you jump in and jump out of. When we're so short on time, just getting those five, ten minutes to just do one dance: "Oh yeah, I remember that line dance, let's have a go at that one again. Just do it quickly, but I just need a quick reminder of the moves" ... and it's with some music as well, would be really nice.

The first podcast *Shake to Wake* is inspired by the warmup that started each practical workshop, which many of the participants identified in their reflections was a helpful way to start their day and relieve physical tension.

(TB) [written reflection] Light bulb moment: I need to look after my shoulders...they are so stiff from breastfeeding. I will take forward daily dance ideas as well the shaking and rubbing (it would be really helpful to have a guided recording of this as well as the floor exercises).

(ARR) [written reflection] Taking forward: 5 min stretch, shake and rub to an uplifting track every morning. I need to make time for myself too

The second podcast, *Mindful movement*, is adapted from a movement exercise the participants were introduced to on Day Two. The mothers responded particularly positively to this exercise, articulating that they enjoyed being guided through a movement exercise in which they were

able to respond to their own needs. They expressed that as a result of moving gently in this way they felt *lighter (ARR), softer (AT), relaxed (KT), less sore [and] more relaxed (JMM), calm (TB), and nourished (AMR)*.

(JMM) I'm not used to listening to [laughing] what my body needs, I guess. Because you're always so busy looking after a baby and just doing the basic things, like, "Oh, you know, I really need to clean this, I really need to do that. Oh! Maybe I should have a shower." But you don't actually kind of sit down and think about what your body needs. Like beforehand, I felt really, really sore from a long night and now, like, I ... feel a lot different now. Kind of ... I don't ache. At the moment, I actually don't feel any aches or anything, which is ... I didn't expect that [laughs].

AT: Going on from what you said about you feel like you've always got to do something... when I first lay down on the floor I was like, "Oh no, the floor's filthy, I really need to mop it!" [...] and then by the end, I was like, "I don't really care!" I just completely lost myself in it, it's incredible, it's like ahh!"

(AMR) I really liked the way it was un-prescribed. Like, most sort of yoga or exercise classes are ... everybody does the same movements and it might not, yeah, might not be what your particular body needs at that time, so I really liked, erm, yeah, creative in what I needed.

(KB) Nice to be in what felt like sort of yoga/pilates positions but then throw off the shackles of [laughing] – as AMR said – of prescribed moves and just kind of be creative with it and, yeah, it felt familiar yet completely unfamiliar at the same time.

(KB) I was thinking, if you could record it, it would be a nice thing because, as like a voice note or something like that [...] because it was definitely inspiring to be led, but to have your, our, hands held a little bit, but also be left to get on with it.

(ARR) yeah, that would be nice, because it's not always that you can do it at the moment that you wanted to do it [...] something you can play when you've got that free time to lie down... would be great.

The podcasts also build upon the findings in the thematic analysis of the benefit of having a *physical vocabulary*. They are designed to reinforce the physical vocabulary participants are introduced to in practical sessions and provide a guided movement that is easily accessible for independent practice, whilst still giving mothers a sense that they are being led.

Chapter summary

This chapter has presented the design of the final intervention, demonstrating how the decisions made have been informed and shaped by the contributions of the co-design group. The intervention integrates a number of different components that were found to be either enjoyable and successful or beneficial to wellbeing outcomes: live, sessions led by an experienced and intuitive practitioner; opportunities to reflect and benefit from peer support during the live sessions and between sessions; daily dance postcards that act as reminders to move within mothers' daily routines; and videos and podcasts that can be accessed on demand. The chapter is supported by the creative submission, viewable on Padlet, which presents a sample of the resources that would be delivered.

In the final chapter of the thesis, final conclusions are drawn, including discussion of the potential applications and further development for the intervention.

CHAPTER EIGHT

Final Conclusions

In the first half of the thesis, a review was conducted of the general literature, in which it was identified that there is a burgeoning field of research that supports the argument that participation in creative arts and arts-based interventions can support individuals across the life course. However, whilst the evidence points towards positive outcomes, studies are let down by a lack of methodological rigour, small sample sizes, and inconsistent application of evaluative tools or measurement scales. The literature surveyed included the field of the arts and maternal health. Through this process it was found that there are a scant number of published studies exploring the potential of arts-based practices with women in the perinatal period.

There was also discussion of the philosophical and methodological frameworks for the research. It was described how the research is informed by a pragmatic philosophical perspective, explaining how this supports a participatory co-design methodology, where the focus is on generating understanding experience in order to find practical solutions to real world problems.

Summary of key findings

The first empirical study presented was a systematic review that examined the evidence base for arts-based interventions on maternal health and wellbeing outcomes. The review identified only nine papers that met the criteria, including qualitative, quantitative and mixed methods study designs. It was established that the evidence base for maternal arts-based interventions is heterogeneous, with variance in methodological rigour. Although some studies explore subjective measures of wellbeing, the more robust research predominantly focuses on measuring clinical outcomes of health such as postnatal depression or maternal anxiety, with limited research into other more holistic models of wellbeing such as quality of life. The use of dance with a maternal population was noticeably absent from the included studies, with the majority employing music or singing as the main arts form. All studies reported positive results

and recommended that there was scope for further research. The evidence was particularly compelling for the use of singing or music intervention for mothers with postnatal depression, with the results suggestive that singing can facilitate an improved bond between mother and baby. Meta synthesis of the qualitative results identified three main themes. It was found that the wellbeing outcomes could be categorised as social benefits – including community/peer support and time out for mothers; emotional benefits – incorporating fun and enjoyment, relaxation and calm, and relief from worries and anxieties; and psychological benefits – including skills for motherhood, overcoming challenges/aiding transition, and bond with baby. The review made a number of recommendations: (i) attention should be paid in future studies to recruiting larger samples of participants, particularly those from different socioeconomic and cultural backgrounds; (ii) future interventions could consider the relationship between art form specific mechanisms and particular emotional, social and psychological wellbeing outcomes; (iii) future studies should consider longitudinal research that seeks to understand to what extent outcomes are maintained past the initial post-intervention period of two to six months.

The second half of the thesis focussed on reporting the second empirical study: the co-design of Moving through Motherhood, a dance-based intervention for mothers. A thematic analysis was conducted of the discussions held during the co-design process, with the aim being to better understand what maternal wellbeing means to a maternal population and what impact was identified by the co-design group so that these findings could be used to inform the design of a dance-based intervention for maternal wellbeing.

The thematic analysis identified four overarching themes. In the first theme, 'Maternal wellbeing', the mothers discussed the reality of motherhood and how this impacted their ability to think about and take care of their own needs. When they reflected on definitions of wellbeing, they expressed that certain aspects of motherhood threatened these definitions. They defined wellbeing as searching for calm and balance amidst the disruption of life as a new mother. One of the biggest threats to wellbeing was the impact of looking after a new baby, with baby's needs and wellbeing taking over and becoming the focus of activities, conversations and relationships.

The impact of taking part in the sample intervention was split into two themes: one discussing the impact of dance specifically on the wellbeing of the mothers (Impact of dance), and the other exploring the further psychological benefits of taking part in the intervention that could not be directly attributed to dance (Impact of the intervention). The mothers described how taking part in the dance workshops had been an uplifting and energising experience that resulted in positive emotions and feelings of achievement. Dancing, especially first thing in the morning, awakened an inner energy which helped them to be more productive during the rest of the day. Being guided through somatically informed movement exercises that promoting stretching and releasing was seen to be a particularly impactful outcome, as they expressed that this gave them a new physical vocabulary. This was one of the areas where there was a sense that this was a practice that the mothers would continue post-intervention, as they expressed that they were already incorporating some of the exercises and movements into their routine at times when they were experiencing pain and discomfort or feeling low in energy. Learning different styles of dance was not only an enjoyable experience because it was new and different, but also because it provided them with an opportunity to exercise their cognitive ability. This resulted in feelings of achievement and pride, which helped them to overcome the narrative of having “baby brain” and reinforced the sense that there was life beyond baby.

In addition to dance contributing to emotional, physical and psychological wellbeing, the intervention itself had an impact on psychological wellbeing, conceptualised in the two themes sisterhood and beyond baby. Both of these themes indicate ways in which the mothers were finding meaning through their participation. Within the theme of sisterhood, the narratives demonstrated how the mothers identified with each other and recognised others going through the same challenges as them. Through this, the women also began to consider their identity and lives beyond baby, and beyond their caring role as mother – something they identified as being a particular challenge to maintaining their wellbeing. This outcome was facilitated through participation in something that acknowledged their identity as individuals, whilst experiencing it alongside individuals with whom they shared a sense of maternal identity. The final theme discussed specific mechanisms within the delivery or design of the intervention that either contributed to wellbeing outcomes and/or facilitated greater engagement with the activity. The mothers identified that if they were to benefit from the

positive outcomes of dance and movement, they needed to maximise their opportunities to move. This meant incorporating opportunities into their daily routine and having an intervention that included different resources to support them to do this. It was also important to the mothers in the co-design group to have a programme that felt bespoke and tailored to their needs.

The final chapter in the thesis presented the design of the intervention, discussing the individual components and demonstrating how the contributions of the co-design group fed into these. The design is a suggested blueprint for content, based on the findings from both the thematic analysis and the systematic review.

The findings in this thesis support the use of dance with a maternal population. These findings are consistent with the literature within the systematic review, where it was found that arts-based interventions have emotional, social and psychological benefits, particularly in relaxation to relaxing and emotional regulation, peer support, and tools for managing and navigating the challenges of motherhood. The mothers in the co-design study found dance to be uplifting and energising. This correlates with findings in the systematic review where moving to music was reported to be an uplifting exercise that created positive emotions (Demecs 2011) and music and singing resulting in feelings of pleasure and enjoyment (Ettenberger 2017; Ettenberger 2018; Perkins 2018). It was also found that dance provided mother with a physical vocabulary which they could use as a wellbeing tool. This finding from the co-design echoes similar findings in the systematic review, where mothers reported using the new creative skills they learnt during the intervention outside of the creative sessions and in their home environment, leading to feelings of empowerment and increased self-confidence (Carolan 2012; Demecs 2011; Ettenberger 2017; Ettenberger 2018; Perkins 2018).

The co-design group suggested that a dance-based intervention for maternal wellbeing needed to work around the busy lives of new mothers. They enjoyed the opportunity to meet with other mothers in a virtual space on a regular basis and felt that the peer support element and the opportunity to build a relationship with the facilitator were particularly important aspects. Linked to peer support was the opportunity for self-reflection. This was seen to be so important, that it was suggested that not only should it be embedded into the live sessions,

but that there should be additional opportunities for the group to gather and reflect upon their experiences and the implication of these for their wellbeing. There is evidence that peer support and social support from friends are effective mechanisms in the prevention of postnatal depression and anxiety and in enhanced wellbeing outcomes (Dennis et al 2009; Harrison et al 2021). This is supported in the reported results from arts-based interventions, where women reported experiencing a sense of connection in which they benefited from sharing the experience of motherhood with other mothers (Carolan 2012; Demecs 2011; Perkins 2018; Perry 2008).

In summary, the intervention consists of two main mechanisms that impact maternal wellbeing: dance movement activity and peer support. Both of these have individual evidence bases for their ability to improve wellbeing. Therefore, there is enough evidence to suggest that this intervention would be suitable for use with a maternal population and that participation would result in enhanced wellbeing.

Implications

Maternal mental health has become a key social and economic public health concern over the last two decades (WHO 2008; NHS 2019). In 2011, the Department of Health report *No Health Without Mental Health* identified that mental health and wellbeing was a central issue within the government's social strategy, stating that the economic cost of mental health problems (across the entire population) in England was estimated to be £105 billion (2011, p.2). Improving maternal mental health is a key concern because poor perinatal mental health is linked to adverse effects on a child's development (Bauer et al 2022; HM Government 2021; NHS 2016), with the NHS Long Term Plan identifying that mental health problems in children often develop early and that health outcomes are in part linked to the family environment in which a child grows up (NHS 2019) and that meeting the needs of parents enables them to meet the needs of their baby (HM Government 2021, p.15). Therefore, investing in the care and support of mothers during the perinatal period has a much wider social and economic impact.

Since 2015, whilst there has been substantial investment in perinatal mental health services within the UK, much of this funding is focussed on specialist perinatal mental health services

providing care and treatment for women with the more complex or severe needs. This is important because, if left untreated, common perinatal mental health problems, such as depression and anxiety, can become more severe (Bauer et al 2022, pp.4-5). Furthermore, there is little evidence to address these lesser problems of mild to moderate depression, anxiety, or adjustment disorders (Coates et al 2019, p.3).

This is the first study of its kind to bring together the published research for arts-based interventions on maternal wellbeing. Therefore, it is a useful resource for researchers and practitioners who are considering the use of participatory arts with mothers in the postnatal period. Furthermore, it adds to the evidence base by presenting a replicable model of practice specifically for dance practitioners working in this field. There are a number of distinct features that contribute a new perspective to this area of practice: (i) the use of co-design to develop an intervention; (ii) the discussion around the mechanisms that facilitate engagement and enhance outcomes for a maternal population, such as tailored teaching and embedded reflection; and (iii) the hybrid model of live, virtual delivery, combined with resources that can be accessed by participants independently of the sessions themselves. Therefore, it would be of use to practitioners to receive training and information on these features for them to incorporate into their own practice.

Following on from the ideas above, there are wider implications and possibility for this research to reach a larger audience. Organisations working within the field of maternal health and wellbeing could benefit from adopting this model of practice and implementing the intervention itself, with support from the research team. This could be of particular benefit to organisations who support women in the postnatal period suffering from the more common mental health disorders, or from sub-clinical “psychological distress” (Button et al 2017; Coates et al 2019). Although this concept is not clearly defined within the literature, it is understood to be a maladaptive psychological response, closely linked to stress and coping, which encompasses a range of psychological symptoms such as anxiety, stress and depression, resulting in an adverse emotional state (Button et al 2017).

Whereas other studies in the field have investigated the impact of arts-based intervention on clinical measures of postnatal mental health such as perinatal depression (Fancourt 2017; Fancourt 2018; Perkins 2018; Perry 2008), postnatal anxiety (Carolan 2012; Ettenberger 2017;

Ettenberger 2018; Perry 2008; Wulff 2020) and mother-infant bond (Fancourt 2017; Fancourt 2018; Perkins 2018; Wulff 2020), this study looks instead at overall postnatal wellbeing. This mothers in the co-design study clearly identified that there was value in exploring wellbeing through the lens of the PERMA model (Seligman 2011). PERMA arises from positive psychology, where the focus is on wellbeing, happiness, flow, personal strengths, wisdom and creativity and how these can be used to enable individuals and communities to thrive and flourish and live more fulfilling lives (Hefferon and Boniwell 2011, p.2).

Going forward, looking through the lens of positive psychology could be a useful way of conceptualising wellbeing with a maternal population. One of the more unexpected findings of the intervention was the extent to which the co-design group valued the inclusion of psychoeducation around wellbeing and guided self-reflection. When considering different wellbeing models, they expressed a preference for a positive psychology model that included aspects of wellbeing relating to positive emotion, relationships, engagement, meaning and achievement. This finding suggests an opportunity for future research to consider the impact of dance within the theoretical framework of positive psychology.

Positive psychology presents an interesting way of conceptualising maternal wellbeing and arts-based interventions for two reasons. Firstly, by participating in a physical activity that engages the body, it is possible to experience flow, which has an impact on wellbeing even after participation in the activity has ended (Hefferon and Boniwell, 2011, p.177). Engagement and flow also assist individuals in the recognition and generation of meaning, with evaluations of other arts-based interventions have cited one of the benefits of participation of being the ability to elucidate meaning through immersion in creative activity (Bungay and Clift 2010; Spandler et al 2007; Tufnell 2017; White and Robson 2007).

Secondly, positive psychology primarily supports health and wellbeing by advocating optimism and promoting human flourishing. As we have identified, poor mental health and wellbeing has adverse effects not only on emotional and psychological outcomes, but also on socioeconomic outcomes. There is evidence to suggest that psychologically informed practices can improve health-related quality of life and wellbeing for women who do not have a specific perinatal mental health problem and that this can lead to reductions in the costs of healthcare (Bauer et al 2022, p.7). There is further evidence to suggest that employing a positive

psychology approach can address some of these factors, with a study carried out in Denmark concluding that psychological flourishing was associated with lower healthcare costs (Santini et al 2021). This philosophy could be especially useful when conceptualising wellbeing with non-clinical populations and would offer something new to the evidence base, where the focus is often on measuring impact on clinical outcomes.

Limitations and further recommendations

The fact that the research was held during a pandemic may affect the ability to draw generalisations from the data. It is also not without note that the pandemic and related restrictions have had a significant impact on access to health services for mothers in the perinatal period and their ability to cope which for many women has resulted in a mental health crisis (Papworth et al 2021). This has particular implications for the mode of delivery, given that the proposed intervention is to be delivered virtually. Whilst the general population may have become more accustomed to accessing services on virtual platforms, further consultation with different groups of mothers would be required to ascertain whether classes held remotely would hold wide appeal, or whether a blended hybrid-delivery approach might be preferable. Therefore, it would be important to consider access to virtual platforms for different socioeconomic groups, particularly in areas where digital poverty is an issue. In this instance, an approach that would help remove barriers to access would be to partner with charities or community organisations who work with a maternal population, who can provide the digital access, which would mean facilitators could reach more rural areas or harder-to-reach demographics.

There was limited opportunity within the structure of the co-design process and the analysis that followed to fully explore whether there are mechanisms specific to dance that contribute to wellbeing outcomes. Whilst some of these can be inferred from the literature within the general population, further research would be needed to look at this within a maternal population. In particular, it would be interesting to explore the role of dance and movement in helping mothers to recognise or adapt to any physical or hormonal changes within their body following childbirth and to explore whether the use of dance might help mothers to discover embodied narratives that assist them as they reconceptualise their self-identity.

Whilst the qualitative findings suggest that there was an improvement in wellbeing for the participants within the co-design group, this was not tested or verified with any validated scales of measure. The next steps for this research would be pilot the intervention with a larger sample and conduct a robust evaluation of the wellbeing outcomes. Within a non-clinical population, potential measures could be self-reported wellbeing, parental self-efficacy, quality of life and life satisfaction. There would also be potential to pilot the intervention with a low-risk clinical population within a community setting, such as women experiencing mild to moderate postnatal depression or anxiety. In this instance, it would be worthwhile considering the psychometric scales most commonly used in similar studies such as the Edinburgh Postnatal Depression Scale, the Mother Infant Bonding Scale or the State Trait Anxiety Index.

The research was conducted with a group of able-bodied women with healthy babies. Therefore, many of the resources, as well as the workshop content, is tailored to this group. In order to make the intervention more accessible to a range of mothers with different access needs, some of the resources would require further development. To remain aligned with the original ethos of the work, the development of these resources would require a period of consultation and co-design with mother's representative of a diverse range of needs and disabilities. In addition, whilst steps during the recruitment to reach a culturally diverse range of mothers, the co-design group was relatively homogenous in terms of social, cultural and ethnic background. A further extension of the work around inclusivity and accessibility would be consider how the content and design of the intervention translates to mothers from different socioeconomic and cultural backgrounds.

To conclude, this thesis stems from a desire to further explore the contribution that dance can make to emotional, psychological and social outcomes for women in the postnatal period. The aim of this thesis was to contribute to the growing evidence base for arts-based interventions with maternal populations. It has done this in two main ways: firstly, by conducting a systematic review of empirical research on arts-based interventions for maternal wellbeing; and secondly, through the co-design of a dance-based intervention for use with new mothers. The proposed intervention presents a unique opportunity for mothers in the postnatal period to improve their wellbeing through a combination of dance movement activity and peer support.

REFERENCES

- Abdolahian, S., Ghavi, F., Abdollahifard, S. and Sheikhan, F., (2014) 'Effect of dance labor on the management of active phase labor pain & clients' satisfaction: a randomized controlled trial study'. *Global Journal of Health Science*, 6(3). DOI: 10.5539/gjhs.v6n3p219.
- Agnew, M. (2012) 'Dance-Movement Therapy in a Wellness Program for mothers experiencing postnatal depression and their children' [unpublished article]. Move Into Life [online]. Available from: <http://moveintolife.com.au/wpcontent/uploads/2013/10/Dance-Movement-Therapy-in-a-Wellness-program.pdf> [accessed February 2022].
- Aked, J. Marks, N., Cordon, C., Thompson, S. (2008) *Five Ways to Wellbeing: The Evidence Report* published by New Economics Foundation (NEF).
- Akin, B. and Saydam, B.K., (2020) 'The effect of labor dance on perceived labor pain, birth satisfaction, and neonatal outcomes'. *EXPLORE*, 16(5), pp.310-317. DOI: 10.1016/j.explore.2020.05.017.
- All Party Parliamentary Group on Arts, Health and Wellbeing (APPGAHW) (2017) Inquiry Report *Creative Health: The Arts for Health and Wellbeing*.
- Allerdice, F., McNeill, J. and Lynn, F. (2013) 'A systematic review of systematic reviews of interventions to improve maternal mental health and well-being' *Midwifery* 29(4) pp. 389-399. DOI: 10.1016/j.midw.2012.05.010.
- Amans, D. (2017) *An introduction to community dance practice*. London: Palgrave Macmillan.
- Angus, J. (2002) *A review of evaluation in community-based art health activity in the UK* London: Health Development Agency.
- Aveyard, H., Payne, S. and Preston, N. (2016) *Post-graduate's guide to doing a literature review in health and social care*. Maidenhead: Open University press.
- Baranov, D (2012) *Conceptual Foundations of Social Research* 2nd edition Boulder, USA: Paradigm Publishers.
- Bartlett, K. and Amans, D. (2017) 'Love Difference: Why is Diversity Important in Community Dance?' in Amans, D. (2017) *An introduction to community dance practice*. London: Palgrave Macmillan.
- Bauer, A., Tinelli, M., Knapp, M. (2022) *The economic case for increasing access to treatment for women with common mental health problems during the perinatal period*. Care Policy and Evaluation Centre, London School of Economics and Political Science. Available online at <https://maternalmentalhealthalliance.org/projects/the-economic-case-for-increasing-access->

[to-treatment-for-women-with-common-maternal-mental-health-problems/](#) [Accessed March 2022]

Beddoe, A.E. and Lee, K.A. (2008) 'Mind-body interventions during pregnancy' *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 37(2), pp.165-175. DOI: 10.1111/j.1552-6909.2008.00218.x.

Belfiore, E. (2016) 'The arts and healing: The power of an idea'. *Oxford textbook of creative arts, health, and wellbeing: International perspectives on practice, policy, and research*, pp.11-17.

Boviard, T. and Loeffler, E. (2013) 'We're all in this together: harnessing community co-production of public outcomes', Birmingham: Institute of Local Government Studies.

Boyer, K. and Spinney, J. (2016) 'Motherhood, mobility and materiality: Material entanglements, journey-making and the process of 'becoming mother'' *Environment and Planning D: Society and Space*, 34(6), pp.1113-1131.

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, 3(2) pp.77-101.

Braun, V. and Clarke, V. (2013) *Successful Qualitative Research* London: SAGE.

Bräuninger, I. (2012) 'The efficacy of dance movement therapy group on improvement of quality of life: A randomized controlled trial. *The Arts in Psychotherapy*, 39(4), pp.296-303.

Bryman, A (2012) *Social research methods* 4th edition Oxford: Oxford University Press.

Bungay, H. and Clift, S. (2010) 'Arts on Prescription: A review of practice in the UK' *Perspectives in Public Health* Nov 2010 130(6) pp 277-281.

Burkett, I., 2012. *An introduction to co-design*. Sydney: Knode.

Burkhardt, J. and Rhodes, J. (2012) *Danceactive: Commissioning Dance for Health and Well-Being* West Midlands: Department of Health, West Midlands.

Burr, V. (2015) *Social Constructionism* 3rd edition Routledge: Hove.

Button, S., Thornton, A., Lee, S., Shakespeare, J. and Ayers, S. (2017) 'Seeking help for perinatal psychological distress: a meta-synthesis of women's experiences'. *British Journal of General Practice*, 67(663), pp.e692-e699.

Carolan, M., Barry, M., Gamble, M., Turner, K., & Mascareñas, Ó. (2012) 'Experiences of pregnant women attending a lullaby programme in Limerick, Ireland: A qualitative study' *Midwifery* 28(3) pp. 321-328.

Chan, A. (2021) 'The Implementation of Mindfulness and Dance/Movement Therapy For Women with Postpartum Depression: A Literature Review" Expressive Therapies Capstone Theses. 384.

Clift, S., 2020. Fancourt, D. and Finn, S. (2019) 'What is the evidence on the role of the arts in improving health and well-being? A scoping review', *Nordic Journal of Arts, Culture and Health*, 2(1), pp.77-83.

Clift, Stephen. Phillips, Kate. & Pritchard, Stephen. (2021), 'The need for robust critique of research on social and health impacts of the arts', *Cultural Trends*, 30(5), pp.442-459. DOI: 10.1080/09548963.2021.1910492.

Cluderay, E.R. (2017) '*Stepping Out with my Baby: the impact of babywearing dance on postnatal wellbeing*'. Masters dissertation, De Montfort University, Leicester.

Cluderay, E.R. (2018) 'Creative practice as personal and professional recovery', *Animated: current issues in participatory dance*. Spring 2018 pp.28-29. Available at: <https://www.communitydance.org.uk/DB/animated-library/creative-practice-as-personal-and-professional-recovery?ed=43340> [Accessed March 2022] .

Coates, R. Ayers, S. de Visser, R. and Thornton, A. (2019). 'Evaluation of the CORE-10 to assess psychological distress in pregnancy'. *Journal of Reproductive and Infant Psychology*. DOI: 10.1080/02646838.2019.1702631.

Cramp, A. G. and Bray, S.R. (2010) 'Understanding Exercise Self-Efficacy and Barriers to Leisure-Time Physical Activity Among Postnatal Women' *Maternal Child Health Journal* (2011) 15 pp 642-651. DOI: 10.1007/s10995-010-0617-4.

Crane, T., Buultjens, M. and Fenner, P. (2021) 'Art-based interventions during pregnancy to support women's wellbeing: An integrative review'. *Women and Birth*, 34(4), pp.325-334. DOI: 10.1016/j.wombi.2020.08.009.

Crone, D., O'Connell, E., James, D.V.B., Tyson, P. and Clark-Stone, F. (2011) *Art lift, Gloucestershire: evaluation report*. University of Gloucestershire, UK. Available online at: <https://artlift.org/wp-content/uploads/2019/02/2011-UoG-Art-Lift-Evaluation-Report-Executive-Summary.pdf> [Accessed February 2022].

Crone, D.M., Sumner, R.C., Baker, C.M., Loughren, E.A., Hughes, S. and James, D.V. (2018) 'Artlift arts-on-referral intervention in UK primary care: updated findings from an ongoing observational study'. *The European Journal of Public Health*, 28(3), pp.404-409. DOI: 10.1093/eurpub/cky021.

Crotty, M. (1998) *The Foundations of Social Research: Meaning and Perspective in the Research Process* SAGE: London.

Darvill, R., Skirton, H. and Farrand, P. (2010) 'Psychological factors that impact on women's experiences of first-time motherhood: a qualitative study of the transition'. *Midwifery*, 26(3), pp.357-366. DOI: 10.1016/j.midw.2008.07.006.

Demecs, I. P., Fenwick, J., & Gamble, J. (2011) 'Women's experiences of attending a creative arts program during their pregnancy' *Women and Birth*, 24(3), pp.112-121. DOI: 10.1016/j.wombi.2010.08.004.

Dennis, C.L., Hodnett, E., Kenton, L., Weston, J., Zupancic, J., Stewart, D.E. and Kiss, A. (2009) 'Effect of peer support on prevention of postnatal depression among high-risk women: multisite randomised controlled trial.' *British Medical Journal*, 338. DOI: [10.1136/bmj.a3064](https://doi.org/10.1136/bmj.a3064).

Di Mascio, D., Magro-Malosso, E.R., Saccone, G., Marhefka, G.D. and Berghella, V. (2016) 'Exercise during pregnancy in normal-weight women and risk of preterm birth: a systematic review and meta-analysis of randomized controlled trials'. *American journal of obstetrics and gynecology*, 215(5), pp.561-571. DOI: 10.1016/j.ajog.2016.06.014.

Doonan, F. & Brauninger, I., (2015). Making space for the both of us: how dance movement therapy enhances mother-infant attachment and experience. *Body, Movement and Dance in Psychotherapy* [online]. Vol. 10 (4), pp. 227-242. DOI: 10.1080/17432979.2015.1063547.

Dunn, C., Hanieh, E., Roberts, R., Powrie, R. (2012) 'Mindful pregnancy and childbirth: effects of a mindfulness-based intervention on women's psychological distress and well-being in the perinatal period' *Archives of Womens Mental Health* (15) pp 139-143. DOI: 10.1007/s00737-012-0264-4.

Ehrenreich, B., 2007. *Dancing in the streets: A history of collective joy*. New York: Macmillan.

Ettenberger, M., & Beltran Ardila, Y. M. (2018) 'Music therapy song writing with mothers of preterm babies in the Neonatal Intensive Care Unit (NICU) - A mixed-methods pilot study' *The Arts in Psychotherapy*, 58, pp.42-52. DOI: 10.1016/j.aip.2018.03.001

Ettenberger, M., Rojas Cárdenas, C., Parker, M., & Odell-Miller, H. (2017) 'Family-centred music therapy with preterm infants and their parents in the Neonatal Intensive Care Unit (NICU) in Colombia—A mixed-methods study' *Nordic Journal of Music Therapy*, 26(3), pp.207-234. DOI: 10.1080/08098131.2016.1205650

Fancourt D and Perkins R. (2018) 'Effect of singing interventions on symptoms of postnatal depression: three-arm randomised controlled trial', *The British Journal of Psychiatry*. 2018 (212) pp.119–21. DOI: 10.1192/bjp.2017.29.

Fancourt, D. (2017) *Arts in health: designing and researching interventions*. Oxford University Press.

Fancourt, D., & Perkins, R. (2017) 'Associations between singing to babies and symptoms of postnatal depression, wellbeing, self-esteem and mother-infant bond' *Public health*, 145, pp.149-152. DOI: 10.1016/j.puhe.2017.01.016.

Greenland, P. (ed) (2000) *What dancers do that other health workers don't* Leeds: JABADAO

Gudmundsdottir, H.R. and Gudmundsdottir, D.G. (2010) 'Parent–infant music courses in Iceland: perceived benefits and mental well-being of mothers'. *Music Education Research*, 12(3), pp.299-309. DOI: 10.1080/14613808.2010.505644.

Hacking, S., Secker, J., Spandler, H., Kent, L. and Shenton, J. (2006) 'Mental health and arts participation: The state of the art in England' *The Journal of the Royal Society for the Promotion of Health* Vol 126 (3) pp 121-127. DOI: 10.1177/1466424006064301.

Harrison, V., Moore, D. and Lazard, L. (2020) 'Supporting perinatal anxiety in the digital age; a qualitative exploration of stressors and support strategies'. *BMC pregnancy and childbirth*, 20(1), pp.1-20. DOI: 10.1186/s12884-020-02990-0.

Harrison, V., Moulds, M.L. and Jones, K. (2021) 'Support from friends moderates the relationship between repetitive negative thinking and postnatal wellbeing during COVID-19'. *Journal of Reproductive and Infant Psychology*, pp.1-16. DOI: 10.1080/02646838.2021.1886260.

Hefferon, K. and Boniwell, I. (2011) *Positive Psychology: Theory, Research and Applications* Berkshire: Open University Press.

Hemingway, A. and Crossen-White, H. (2015) Arts in Health: a review of the literature, Bournemouth University [online] [available at: <https://www.artshealthresources.org.uk/docs/arts-in-health-a-review-of-the-literature/>] [Accessed February 2022].

Hickman, L.A. and Alexander, T.M. (eds) (1998) *The Essential Dewey Volume 1: Pragmatism, Education and Democracy* Bloomington: Indiana University Press.

Hogan, S. (2017a) 'The Tyranny of Expectations of Post-Natal Delight: Gendering Happiness: the Power of Pleasure'. *Journal of Gender Studies. Special Issue: Gendering Happiness*. Vol. 26. (1) pp.45-56. <https://doi.org/10.1080/09589236.2016.1223617>.

Hogan, S. (2017b) 'Birth Professionals Make Art. Using Participatory Arts to Think About Being a Birthing Professional' *Creative Practices for Improving Health and Social Inclusion. 5th International Health Humanities Conference, Seville. Conference Proceedings*. Seville: University of Seville. pp. 115-123. <http://hdl.handle.net/10545/621385>.

Hogan, S. (2021) 'Arts-based Participatory Research in the Perinatal Period: Creativity, Representation, Identity, and Methods' in Lupton, D. & Leahy, A. (eds.) *Creative Approaches to Health Education: New Ways of Thinking, Making, Doing and Learning*. Oxon: Routledge.

Hogan, S., (2001) *Healing arts: The history of art therapy*. London: Jessica Kingsley Publishers.

Hogan, S., Sheffield, D., Woodward, A. (2017) 'The Value of Art Therapy in Antenatal and Postnatal Care: A Brief Literature Review' *International Journal of Art Therapy* Vol. 22(4), pp.169-179. DOI: 10.1080/17454832.2017.1299774/

HM Government (2021) *The best start for life: a vision for the 1,001 critical days*. The Early Years Healthy Development Report. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/973112/The_best_start_for_life_a_vision_for_the_1_001_critical_days.pdf. [Accessed March 2022].

Houston, S. (2005) 'Participation in community dance: A road to empowerment and transformation?'. *New Theatre Quarterly*, 21(2), pp.166-177. DOI: <https://doi.org/10.1017/S0266464X05000072>.

Ings, R. and McMahon, J. (2018) *Arts and Culture in Health and Wellbeing and in the Criminal Justice System*. Arts Council England. Available online at: <https://www.artscouncil.org.uk/publication/arts-and-culture-health-and-wellbeing-and-criminal-justice-system-summary-evidence>. [Accessed March 2022].

James, W. (1995) *Pragmatism* (unabridged) New York: Dover Publications [originally published 1907].

Kara, H (2015) *Creative Research Methods in the Social Sciences* Bristol: Policy Press

Kaufman, S.R. and Morgan, L.M. (2005) 'The anthropology of the beginnings and ends of life'. *Annual Review of Anthropology*, 34, pp.317-341. DOI: [10.1146/annurev.anthro.34.081804.120452](https://doi.org/10.1146/annurev.anthro.34.081804.120452)

Kiepe, M.S., Stöckigt, B. and Keil, T. (2012) 'Effects of dance therapy and ballroom dances on physical and mental illnesses: A systematic review'. *The Arts in Psychotherapy*, 39(5), pp.404-411. DOI: 10.1016/j.aip.2012.06.001.

Koch, S., Kunz, T., Lykou, S. and Cruz, R.(2014) 'Effects of dance movement therapy and dance on health-related psychological outcomes: A meta-analysis'. *The Arts in Psychotherapy*, 41(1), pp.46-64. DOI: 10.1016/j.aip.2013.10.004.

Koch, S.C., Morlinghaus, K. and Fuchs, T. (2007) 'The joy dance: Specific effects of a single dance intervention on psychiatric patients with depression'. *The Arts in Psychotherapy*, 34(4), pp.340-349. DOI: 10.1016/j.aip.2007.07.001.

Koch, S.C., Riege, R.F., Tisborn, K., Biondo, J., Martin, L. and Beelmann, A. (2019) 'Effects of dance movement therapy and dance on health-related psychological outcomes. A meta-analysis update'. *Frontiers in Psychology*, 10, p.1806. DOI: 10.3389/fpsyg.2019.01806.

Koshy, E., Koshy, V., and Waterman, H. (2010) *Action Research in Healthcare*. London: SAGE.

- Kuppers, P. (2007) *Community Performance: An introduction*, New York: Routledge.
- Lee, A.S., McInnes, R.J., Hughes, A.R., Guthrie, W. and Je, J., Zupancic, J., Stewart, D.E., and Kiss, A. (2016) 'The Effect of More Active Mums in Stirling Trial on Body Composition and Psychological Well-Being among Postnatal Women' *Journal of Pregnancy* Vol 2016. (no DOI).
- Levison, T. (2016) *Moving After Baby: Developing Informed Dance/Movement Therapy Interventions for Symptoms of Postpartum Depression* Creative Arts Therapies Theses. 73. Available online at: https://digitalcommons.colum.edu/theses_dmt/73. [Accessed February 2022].
- Liberati, A., Altman, D.G., Tetzlaff, J., Mulrow, C., Gøtzsche, P.C., Ioannidis, J.P., Clarke, M., Devereaux, P.J., Kleijnen, J. and Moher, D. (2009) 'The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration'. *Journal of Clinical Epidemiology*, 62(10), pp.e1-e34. DOI: 10.1136/bmj.b2700.
- Loughlin, E., (2009) 'Intuitive mothering: Developing and evaluating a dance therapy model for mothers with postnatal depression and their vulnerable infants'. *Dance Therapy Collections*, Dance Therapy Association of Australasia, 3, pp.70-85. Available online at: <http://dtaa.org.au/wp-content/uploads/2017/03/LoughlinE2009Intuitive-mothering.pdf>. [Accessed February 2022].
- Loughren, E.A., Matthews, J., Baker, C., Speke, C. and Crone, D. (2014) *Artlift Gloucestershire Update Report 2011-2014*. Available online at: <https://eprints.glos.ac.uk/2376/> [Accessed February 2022].
- Lovatt, P. (2020) *The Dance Cure: The surprising secret to being smarter, stronger, happier*. London: Short Books.
- Macfarlane, C. and Pethybridge, R. (2016) *Any age, Any body, Any dance*. Leicester: Foundation for Community Dance.
- Mackinlay, E. and Baker, F. (2005) 'Nurturing herself, nurturing her baby: Creating positive experiences for first-time mothers through lullaby singing'. *Women and Music: A Journal of Gender and Culture*, 9(1), pp.69-89. DOI: 10.1353/wam.2005.0010.
- Malone, E. (2013) *One Step Forward: An impact review of Mean Feet's dance and mental health project* Somerset: Effervescent Consulting. Available online at: <https://www.communitydance.org.uk/DB/animated-library/one-step-forward?ed=14075>. [Accessed March 2022].
- Mandracchia, O. (2021) *Dance/Movement Therapy: A Treatment Option for Postpartum Depression* Expressive Therapies Capstone Theses. 502. https://digitalcommons.lesley.edu/expressive_theses/502.

McKercher, K.A. (2020) *Beyond Sticky Notes. Doing Co-Design for real: mindsets, methods and movements* Sydney, Australia: Beyond Sticky Notes.

Mercer, R.T., (2004) 'Becoming a mother versus maternal role attainment'. *Journal of nursing scholarship*, 36(3), pp.226-232. DOI: 10.1111/j.1547-5069.2004.04042.x.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G. (2009) 'Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement'. *Annals of internal medicine*, 151(4), pp.264-269. DOI: 10.7326/0003-4819-151-4-200908180-00135.

Morgan, D. L. (2014) *Integrating Qualitative and Quantative Methods: A Pragmatic Approach* London: SAGE.

Morgan, L.M. (2021) *Dance: The Movement Supporting Safe, Sovereign and Satisfying Birth Experiences* [Master's thesis, Bethel University]. Spark Repository. <https://spark.bethel.edu/etd/450>.

Nakajima, N. (2011) 'De-aging Dancerism? The aging body in contemporary and community dance'. *Performance Research*, 16:3, 100-104, DOI: 10.1080/13528165.2011.606033.

Nascimento, S.L., Surita, F.G. and Cecatti, J.G. (2012) 'Physical exercise during pregnancy: a systematic review'. *Current Opinion in Obstetrics and Gynecology*, 24(6), pp.387-394. DOI: 10.1097/GCO.0b013e328359f131.

Nelson, A.M. (2003) 'Transition to motherhood'. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 32(4), pp.465-477. DOI: 10.1177/0884217503255199.

NHS (2019) *The NHS Long Term Plan* London: NHS England. Available online at <https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf>. [Accessed March 2022].

NHS England (2016) *National Maternity Review: Better Births Improving outcomes of maternity services in England A Five Year Forward View for maternity care* London: NHS England. Available online at: <https://www.england.nhs.uk/wp-content/uploads/2016/02/national-maternity-review-report.pdf>. [Accessed March 2022].

Palazzi, A., Meschini, R. and Piccinini, C.A. (2017) 'Music therapy intervention for the mother-preterm infant dyad: evidence from a case study in a brazilian NICU'. *Voices: A World Forum For Music Therapy* 17 (2). DOI: 10.15845/voices.v17i2.916.

Papworth, R., Harris, A., Durcan, G., Wilton, K., and Sinclair, C. (2021) *Maternal mental health during a pandemic: a rapid evidence review of Covid-19's impact*. London: Centre for Mental Health. Available online at: https://maternalmentalhealthalliance.org/wp-content/uploads/CentreforMH_MaternalMHPandemic_FullReport.pdf. [Accessed March 2022].

Patton, M.P. (2002) *Qualitative Research & Evaluation Methods* Third edition. London: SAGE Publications.

Perkins, R., Yorke, S., & Fancourt, D (2018) 'How group singing facilitates recovery from the symptoms of postnatal depression: a comparative qualitative study' *BMC Psychology*, 6(1), pp.1-12. DOI: 10.1186/s40359-018-0253-0.

Perry, C., Thurston, M., & Osborn, T. (2008) 'Time for Me: The arts as therapy in postnatal depression' *Complementary therapies in clinical practice*, 14(1), pp.38-45. DOI: 10.1016/j.ctcp.2007.06.001.

Persico, G., Antolini, L., Vergani, P., Costantini, W., Nardi, M.T. and Bellotti, L. (2017) 'Maternal singing of lullabies during pregnancy and after birth: Effects on mother–infant bonding and on newborns' behaviour'. Concurrent Cohort Study. *Women and Birth*, 30(4), pp.e214-e220. DOI: 10.1016/j.wombi.2017.01.007.

Pound, R. (2014) 'Moving on Up! Therapeutic movement for postnatal anxiety and depression: Finding significance through alongsideness, enquiring collaboratively and living theory action research in health visiting'. *Education Journal of Living Theories Volume 7*(2) pp.74-101. Available online at: <https://ejolts.net/files/234paperRobyn.pdf>. [Accessed March 2022].

Press, C. (2002) *The Dancing Self: Creativity, Modern Dance, Psychology and Transformative Education* New Jersey: Hampton Press

Putland, C. (2008) 'Lost in Translation: The Question of Evidence Linking Community-Based Arts and Health Promotion' *Journal of Health Psychology* 13 (2) pp 265-276. DOI: 10.1177/1359105307086706.

Rankin, J. (2002) *Effects of Antenatal Exercise on Psychological wellbeing, Pregnancy and Birth Outcome*. New Jersey: John Wiley & Sons.

Santini, Z.I., Becher, H., Jørgensen, M.B., Davidsen, M., Nielsen, L., Hinrichsen, C., Madsen, K.R., Meilstrup, C., Koyanagi, A., Stewart-Brown, S. and McDaid, D. (2021) 'Economics of mental well-being: a prospective study estimating associated health care costs and sickness benefit transfers in Denmark'. *The European Journal of Health Economics*, 22(7), pp.1053-1065. DOI: 10.1007/s10198-021-01305-0.

Schwender, T.M., Spengler, S., Oedl, C. and Mess, F. (2018) 'Effects of dance interventions on aspects of the participants' self: a systematic review'. *Frontiers in psychology*, 9, p.1130. DOI: 10.3389/fpsyg.2018.01130.

Seligman, M. (2011) *Flourish* London: Nicholas Brealey Publishing.

Serrano-Guzman, M., Valenza-Pena, C.M., Serrano-Guzman, C., Aguilar-Ferrandiz, E., Valenza-Demet, G. and Villaverde-Gutierrez, C. (2016) 'Effects of a dance therapy programme on quality of life, sleep and blood pressure in middle-aged women: A randomised controlled

trial'. *Medicina Clínica* (English Edition), 147(8), pp.334-339. DOI: 10.1016/j.medcli.2016.06.030.

Sheppard, A. and Broughton, M.C. (2020) 'Promoting wellbeing and health through active participation in music and dance: a systematic review'. *International journal of qualitative studies on health and well-being*, 15(1). DOI: 10.1080/17482631.2020.1732526.

Sirriyeh R, Lawton R, Gardner P, Armitage G. (2012) 'Reviewing studies with diverse designs: the development and evaluation of a new tool'. *Journal of Evaluation in Clinical Practice*. 18(4) pp.746-52. DOI: 10.1111/j.1365-2753.2011.01662.x.

Slay, J. and Stephens, L. (2013) *Co-production in mental health: A literature review*. London: New Economics Foundation. Available online at: https://b3cdn.net/nefoundation/ca0975b7cd88125c3e_ywm6bp3l1.pdf. [Accessed March 2022].

Sleeper, R.W. (2001) *The Necessity of Pragmatism: John Dewey's Conception of Philosophy* Chicago: University of Illinois Press [originally published in 1986 New Haven: Yale University Press].

Smith, J.A., (1999) 'Identity development during the transition to motherhood: An interpretative phenomenological analysis'. *Journal of reproductive and infant psychology*, 17(3), pp.281-299. DOI: 10.1080/02646839908404595.

Smith, R. (2002) 'Spend (slightly) less on health and more on the arts' *British Medical Journal* Vol 325 pp 1432-1433. DOI: 10.1136/bmj.325.7378.1432.

Smith, S. (2022) 'A 21st century lifesaver' People Dancing: Foundation for Community Dance. Available online at: https://www.communitydance.org.uk/DB/blogs-and-voices/news_and_views/a-21st-century-lifesaver [Accessed March 2022].

Song, J.E., Kim, T. and Ahn, J.A. (2015) 'A Systematic Review of Psychological Interventions for Women with Postpartum Stress' *Journal of Obstetric, Gynecologic & Neonatal Nursing (JOGNN)* Vol44. Iss 2 pp183-192. DOI: [10.1111/1552-6909.12541](https://doi.org/10.1111/1552-6909.12541).

Spandler, H., Secker, J., Kent, L., Hacking, H. and Shenton, J. (2012) 'Catching Life: The contributions of arts initiatives to recovery approaches in mental health' in Stickley, T. (ed) (2012) *Qualitative Research in Arts and Mental Health* Ross-on-Wye: PCCS.

Spandler, H., Secker, J., Kent, L., Hacking, S. and Shenton, J. (2007) 'Catching life: the contribution of arts initiatives to recovery approaches in mental health' *Journal of Psychiatric and Mental Health Nursing* 2007 (14) pp 791-799. DOI: 10.1111/j.1365-2850.2007.01174.x

Staricoff, R. (2004) 'Arts in health: A review of the medical literature'. Research Report 36. London: Arts Council England. Available online at: <https://www.artshealthresources.org.uk/docs/arts-in-health-a-review-of-the-medical-literature/>. [Accessed March 2022].

Stickley, T. (ed) (2012) *Qualitative Research in Arts and Mental Health*.

Stickley, T., Parr, H., Atkinson, S., Daykin, N., Clift, S., De Nora, T., Hacking, S., Camic, P.M., Joss, T., White, M. and Hogan, S.J. (2017) 'Arts, health & wellbeing: reflections on a national seminar series and building a UK research network'. *Arts & Health*, 9(1), pp.14-25. DOI: 10.1080/17533015.2016.1166142.

Stone, B. (2012) 'Art, Autoethnography, and the Use of Self' in Stickley, T. (ed) (2012) *Qualitative Research in Arts and Mental Health*. Ross-on-Wye: PCCS.

Tarr, B., Launay, J. and Dunbar, R.I. (2014) 'Music and social bonding: "self-other" merging and neurohormonal mechanisms'. *Frontiers in psychology*, 5, p.1096. DOI: 10.3389/fpsyg.2014.01096.

Tarr, B., Launay, J. and Dunbar, R.I., (2016) 'Silent disco: dancing in synchrony leads to elevated pain thresholds and social closeness'. *Evolution and Human Behavior*, 37(5), pp.343-349. DOI: 10.1016/j.evolhumbehav.2016.02.004.

Tarr, B., Launay, J., Cohen, E. and Dunbar, R. (2015) 'Synchrony and exertion during dance independently raise pain threshold and encourage social bonding'. *Biology letters*, 11(10), p.20150767. DOI: 10.1098/rsbl.2015.0767.

Teall, W. (2007) 'Start: a creative approach to mental health care' *Journal of Public Mental Health* Dec 2007 6, 4 pp 37-41. DOI: 10.1108/17465729200700027.

Tomlinson, A., Lane, J., Julier, G., Grigsby Duffy, L., Payne, A., Mansfield, L., Kay, T., John, A., Meads, C., Daykin, N. and Ball, K. (2018) 'A systematic review of the subjective wellbeing outcomes of engaging with visual arts for adults ("working-age", 15-64 years) with diagnosed mental health conditions' Project Report. London: Economic and Social Research Council. Available online at: <https://www.artshealthresources.org.uk/docs/visual-art-and-mental-health-a-systematic-review-of-the-subjective-wellbeing-outcomes-of-engaging-with-visual-arts-for-adults-working-age-15-64-years-with-diagnosed-mental-health/>. [Accessed February 2022].

Tufnell, M. (2010) *Dance, Health and Wellbeing* Leicester: Foundation for Community Dance.

Tufnell, M., (2017). *When I Open My Eyes: Dance, Health, Imagination*. Hampshire: Dance Books.

Van Puyvelde, M., Rodrigues, H., Loots, G., De Coster, L., Du Ville, K., Matthijs, L., Simcock, D. and Pattyn, N. (2014) 'Shall we dance? Music as a port of entrance to maternal–infant intersubjectivity in a context of postnatal depression'. *Infant mental health journal*, 35(3), pp.220-232. DOI: 10.1002/imhj.21431.

Whelan, G., Holden, H. and Bockler, J. (2016) 'A social return on investment: evaluation of the St Helens creative alternatives arts on prescription programme'. Liverpool: John Moores

University. Available online at: <https://www.artshealthresources.org.uk/docs/a-social-return-on-investment-evaluation-of-the-st-helens-creative-alternatives-arts-on-prescription-programme/>. [Accessed February 2022].

White, M. and Robson, M. (2007) 'The potent arts' *Journal of Public Mental Health* Dec 2007 6, 4 pp 12-13. DOI: 10.1108/17465729200700023.

Wilson, K. (2015) 'The Art of Social Prescribing: Informing policy on creative interventions in mental health care. Summary research paper prepared for The Art of Social Prescribing conference 17 September 2015'. Available online at: <https://www.artshealthresources.org.uk/docs/the-art-of-social-prescribing-informing-policy-on-creative-interventions-in-mental-health-care/> [Accessed February 2022].

Wimpenny, K. (2010) 'Participatory action research: an integrated approach towards practice development' in Savin-Baden, M. and Howell Major, C. eds. (2010) *New Approaches to Qualitative Research* London: Routledge [pp 89-99].

World Health Organization (WHO) (2008) *Improving Maternal Mental Health* Switzerland: Department of Mental Health and Substance Abuse, WHO. Available online at: https://www.who.int/mental_health/prevention/suicide/Perinatal_depression_mmh_final.pdf. [Accessed March 2022].

Wulff, V., Hepp, P., Wolf, O. T., Hagenbeck, C., Fehm, T., and Schaal, N. K. (2020) 'The effects of a music and singing intervention during pregnancy on maternal well-being and mother–infant bonding: a randomised, controlled study' *Archives of gynecology and obstetrics*, 303(1), pp.69-83. DOI: 10.1007/s00404-020-05727-8.

Zamenopoulos, T. and Alexious, K. (2018) 'Co-Design as Collaborative Research' in Facer, K. and Dunleavy, L. (eds.) *Connected Communities* Foundation Series. Bristol: University of Bristol/AHRC Connected Communities Programme.

Zauderer, C. (2009) 'Postpartum Depression: How Childbirth Educators Can Help Break the Silence' *The Journal of Perinatal Education* 18 (2) pp 23-31. DOI: 10.1624/105812409X426305.

