**Breastfeeding and weaning practices of African mothers living in North East England**

Adefisayo Olanrewaju ODENIYI

A thesis submitted in partial fulfilment of the regulations for the degree of

Doctor of Philosophy

Institute of Health & Society

Faculty of Medical Sciences

Newcastle University

**September 2019**

# Abstract

Breastfeeding provides optimal nutrition for the healthy growth of infants and is the highest preventive measure in reducing under-five mortality. It is also beneficial to the health of the mother and reduces maternal deaths from breast cancer. Evidence shows that mothers migrating from regions of higher breastfeeding rates, to high-income countries of lower breastfeeding rates, tend to breastfeed less the more acculturated they get to the new environment. With the United Kingdom (UK) having one of the lowest rates of breastfeeding globally, the impact of acculturation on the breastfeeding practices of Africans living in the UK has been understudied.

This study aimed to investigate the breastfeeding and weaning practices of African mothers living in North East England. The first phase of this study was a systematic review of existing international literature on the breastfeeding knowledge and practices among African immigrant mothers living in high-income countries. Thirty-five studies were included in this review. The second and third phases of this study used qualitative interviews and thematic analysis to explore the breastfeeding experiences of 19 African mothers and the perception of 18 health professionals providing breastfeeding support to Africans in the UK. Pierre Bourdieu’s theory of practice was applied to interpret the findings.

Three key themes were identified: breastfeeding as a culture, gathering and navigating information sources, and the essentiality of support. Key differences between the views of mothers and health professionals were observed and highlighted. Social norms and practices within the UK influence the beliefs and practices of African mothers as they are faced with conflicting opinions and suggestions regarding choices of infant-feeding. An awareness of the cultural practices of African mothers, recognising their challenges to breastfeeding in the UK and offering more intentional support including education on exclusive breastfeeding and strategies to overcome barriers is required to improve breastfeeding outcomes.

# Dedication

To God Almighty for his faithfulness always.

To my beloved husband Rex, for his unconditional love and encouragements.

To my parents and siblings for their support throughout my study.

# Acknowledgements

My sincere appreciation goes to my supervisors – Professor Judith Rankin, Dr Nicholas Embleton and Dr Judy Richards – for your immense support and dedication to this research and my own personal development. At the start of my PhD study, with a self-designed research proposal, I was not sure of the direction that the research was going to take. But after my first meeting with Judith, I became confident of the potential in my research as I was sure that I had the best supervisor to guide and support me. I appreciate the openness and flexibility my PhD supervisors afforded me in terms of working pattern and locations, the opportunities they presented me with to build me up further towards becoming an independent researcher, and their interest and understanding of my circumstances even outside of the academic world. My PhD supervisors gave so much of themselves (including assisting me with childcare) and have worked seamlessly together as a team to see me through to the successful and timely completion of this relevant piece of research.

I would also like to appreciate my assessors – Cath Exley, Laura Ternent, Joy Adamson, and Susan Hrisos – who supported me at different stages during my study, for your constructive feedback, interest and positivity about my research. Your comments and interest in my project kept me motivated and helped shape my thesis into what it is.

I am also grateful to Newcastle University for making available a scholarship opportunity for international self-funded students. After several unsuccessful attempts at obtaining funded for this project, I found the Newcastle University Overseas Research Scholarship (NUORS), which was more or less my last hope at the time. Being offered this scholarship award made it possible for me to begin my PhD journey and I am grateful that the potential in my research and the promise in my candidature were recognised. Without the support of the NUORS award, I would have been unable to fully fund my PhD and still get the best experience of my studentship and life in the UK.

I would also like acknowledge Professor Yemisi Erinosho and Temitope Erinosho who gave me the initial motivation to take the path of a PhD and offered their knowledge and guidance in the development of a research topic and proposal. I was not sure how to start the journey at all when I had a quick chat with Professor Erinosho and made a quick phone call to her daughter Temitope, who gave me ideas and that call began this journey. Without them, I would not have started my PhD journey at the time I did, or possibly ever.

I also acknowledge everyone that has been part of this research in one way or another. I appreciate all the participants of this study for agreeing to be interviewed. In particular, I appreciate Monique, Eloho and Elizabeth who have thereafter become close friends and have been a great source of motivation for me. I also appreciate Anita Tibbs who always had a welcoming smile, very cheerful news to share and showed so much interest in my work and progress. And to my colleagues in the PhD room, I appreciate your listening ears and willingness to share. The togetherness we shared made the PhD journey less lonely and more enjoyable and I appreciate that.

Finally, I appreciate my parents and siblings for continuously supporting and encouraging me throughout this research. I appreciate their love and encouragement, and how they were able to make every stressful moment feel like something to laugh about. And Enoch, my son, I am grateful to you for your patience and understanding whenever I said “I am busy” because though you were very little, you understood and gave me the time to work. You were not too demanding and that made this work possible to be completed in a timely manner. Most importantly, I appreciate you Rex. We started our life journey in the nick of time for you to be there for me throughout my study. Thank you for your sincere love and encouragement; these past five years would not have been the same without you, and I look forward to many more years together.

# Table of Contents

[Abstract i](#_Toc54016560)

[Dedication iii](#_Toc54016561)

[Acknowledgements v](#_Toc54016562)

[Table of Contents vii](#_Toc54016563)

[List of Tables xii](#_Toc54016564)

[List of Figures xiii](#_Toc54016565)

[List of Abbreviations xiv](#_Toc54016566)

[Chapter 1: Introduction 1](#_Toc54016567)

[Chapter 2: Literature Review 6](#_Toc54016568)

[2.1 Chapter Introduction 6](#_Toc54016569)

[2.2 Breastfeeding in Low- and Middle- Income Countries 7](#_Toc54016570)

[2.3 Breastfeeding In High-Income Countries 14](#_Toc54016571)

[2.4 Factors Influencing Breastfeeding 15](#_Toc54016572)

[2.5 Migration 17](#_Toc54016573)

[2.6 Migration and Breastfeeding 18](#_Toc54016574)

[Chapter 3: Methodology 21](#_Toc54016575)

[3.1 Chapter Introduction 21](#_Toc54016576)

[3.2 Research Aim And Objectives 21](#_Toc54016577)

[3.2.1 Aim 21](#_Toc54016578)

[3.2.2 Specific objectives 21](#_Toc54016579)

[3.3 Research Design 22](#_Toc54016580)

[3.4 Epistemology and Ontological Positions 24](#_Toc54016581)

[3.5 Methods 25](#_Toc54016582)

[3.5.1 Ethical approval process 25](#_Toc54016583)

[3.5.2 Development of the topic guide 25](#_Toc54016584)

[3.5.3 Study setting 27](#_Toc54016585)

[3.5.4 Study population and recruitment of participants 28](#_Toc54016586)

[3.5.5 Sample size 37](#_Toc54016587)

[3.5.6 Data collection 37](#_Toc54016588)

[3.5.7 Data analysis 38](#_Toc54016589)

[3.6 Reflections on the Methods of this Research 45](#_Toc54016590)

[3.6.1 Reflections on the recruitment process 45](#_Toc54016591)

[3.6.2 Reflections on the data collection process 47](#_Toc54016592)

[Chapter 4: The Beliefs, Knowledge, Attitudes And Experience Of Breastfeeding Among African Mothers Residing In High-Income Countries – A Systematic Review 49](#_Toc54016593)

[4.1 Chapter Introduction 49](#_Toc54016594)

[4.2 Rationale for a Systematic Review 50](#_Toc54016595)

[4.3 Focused Review Question 51](#_Toc54016596)

[4.3.1 Review objectives 51](#_Toc54016597)

[4.4 Method 52](#_Toc54016598)

[4.4.1 Inclusion and exclusion criteria 52](#_Toc54016599)

[4.4.2 Search strategy 54](#_Toc54016600)

[4.4.3 Study selection 55](#_Toc54016601)

[4.4.4 Data extraction 56](#_Toc54016602)

[4.4.5 Risk of bias (quality) assessment 57](#_Toc54016603)

[4.4.6 Data synthesis 57](#_Toc54016604)

[4.5 Results 58](#_Toc54016605)

[4.5.1 Description of included studies 61](#_Toc54016606)

[4.5.2 Summary of findings 77](#_Toc54016607)

[4.6 Discussion 98](#_Toc54016608)

[4.6.1 Strengths and limitations 100](#_Toc54016609)

[4.7 Informing the Topic Guides of the Qualitative Interviews 101](#_Toc54016610)

[CHAPTER 5: Findings from qualitative interviews with African mothers 103](#_Toc54016611)

[5.1 Chapter introduction 103](#_Toc54016612)

[5.2 Theme 1: Information Gathering and Navigation 107](#_Toc54016613)

[5.2.1 Sources of information 107](#_Toc54016614)

[5.2.2 Navigating information sources 112](#_Toc54016615)

[5.3 Theme 2: Breastfeeding Culture 117](#_Toc54016616)

[5.3.1 Initiation and duration of breastfeeding. 118](#_Toc54016617)

[5.3.2 Knowledge of breastfeeding 122](#_Toc54016618)

[5.3.3 Perception of breastfeeding 125](#_Toc54016619)

[5.3.4 Breastfeeding in public 132](#_Toc54016620)

[5.4 Theme 3: Support Network 138](#_Toc54016621)

[5.4.1 Support from health professionals - technical and emotional 139](#_Toc54016622)

[5.4.2 Support from family – practical, emotional and technical 141](#_Toc54016623)

[5.4.3 Support from friends – emotional and practical support 143](#_Toc54016624)

[5.4.4 Pressure from support circle 145](#_Toc54016625)

[Chapter 6: Findings from Qualitative Interviews with Health Professionals 149](#_Toc54016626)

[6.1 Chapter Introduction 149](#_Toc54016627)

[6.2 Theme 1: Perception of the Breastfeeding Culture of African Mothers 150](#_Toc54016628)

[6.2.1 Naturalness of breastfeeding 150](#_Toc54016629)

[6.2.2 Cultural practices of African mothers 155](#_Toc54016630)

[6.2.3 The attitudes of African mothers to breastfeeding in public 156](#_Toc54016631)

[6.3 Theme 2: Perception of the Support Network of African Mothers in the UK 159](#_Toc54016632)

[6.3.1 Support from family and friends 159](#_Toc54016633)

[6.3.2 Support from health professionals and breastfeeding support services 162](#_Toc54016634)

[CHAPTER 7: Integration of Findings 167](#_Toc54016635)

[7.1 Chapter Introduction 167](#_Toc54016636)

[7.2 Integration of Findings from the mothers’ and health professionals’ interviews according to Bourdieu’s Theory 167](#_Toc54016637)

[7.2.1 Breastfeeding as a culture 168](#_Toc54016638)

[7.2.2 Gathering and navigating information sources 180](#_Toc54016639)

[7.2.3 The essentiality of support 181](#_Toc54016640)

[7.3 Integration of Qualitative Interview Findings with Systematic Review Findings 186](#_Toc54016641)

[7.3.1 Breastfeeding practices 186](#_Toc54016642)

[7.3.2 Knowledge, beliefs and attitudes towards breastfeeding 186](#_Toc54016643)

[7.3.3 Influence of socio-demographic, economic and cultural factors 189](#_Toc54016644)

[7.3.4 Support system 189](#_Toc54016645)

[7.3.5 Perception of health professionals 191](#_Toc54016646)

[Chapter 8: Overall Discussion 193](#_Toc54016647)

[8.1 Chapter Introduction 193](#_Toc54016648)

[8.2 Summary of Main Findings 193](#_Toc54016649)

[8.3 Strengths and Limitations of this Study 200](#_Toc54016650)

[8.3.1 Strengths 200](#_Toc54016651)

[8.3.2 Limitations 201](#_Toc54016652)

[8.4 Implication of Study for Practice 202](#_Toc54016653)

[8.4.1 The question of choice 202](#_Toc54016654)

[8.4.2 Training in cultural differences 203](#_Toc54016655)

[8.4.3 Encouraging participation of infant’s father 204](#_Toc54016656)

[8.4.4 Clarity around the cultural preferences of African mothers 204](#_Toc54016657)

[8.5 Recommended Areas for Future Research 205](#_Toc54016658)

[8.6 Reflexive Account of the Researcher 207](#_Toc54016659)

[8.7 Conclusion 210](#_Toc54016660)

[Chapter 9: Appendices 212](#_Toc54016661)

[9.1 Appendix 1: Ethics Approval Letter 212](#_Toc54016662)

[9.2 Appendix 2: Participants’ Information Leaflets (PIL) 220](#_Toc54016663)

[9.2.1 PIL for mothers 220](#_Toc54016664)

[9.2.2 PIL for health professionals 225](#_Toc54016665)

[9.3 Appendix 3: Study Poster 230](#_Toc54016666)

[9.4 Appendix 4: Topic Guides 231](#_Toc54016667)

[9.4.1 Topic guide for mothers’ interviews 231](#_Toc54016668)

[9.4.2 Topic guide for health professionals 236](#_Toc54016669)

[9.5 Appendix 5: Consent Forms 239](#_Toc54016670)

[9.5.1 Mothers’ consent forms 239](#_Toc54016671)

[9.5.2 Health professionals’ consent form 240](#_Toc54016672)

[9.6 Appendix 6: Sample Search Strategy in Medline. 241](#_Toc54016673)

[9.7 Appendix 7: Data Extraction And Quality Assessment Tools. 243](#_Toc54016674)

[9.7.1 Quantitative data extraction tool 243](#_Toc54016675)

[9.7.2 Qualitative data extraction tool 247](#_Toc54016676)

[9.7.3 Quality assessment tool for observational cohort and cross-sectional studies for appraisal of quantitative studies 252](#_Toc54016677)

[9.7.4 Critical Appraisals Skills Programme (CASP) checklist for appraisal of qualitative studies 254](#_Toc54016678)

[9.8 Appendix 8: Interview Transcripts Examples 258](#_Toc54016679)

[9.8.1 Example of interview transcript from mothers’ interviews 258](#_Toc54016680)

[9.8.2 Example of interview transcript from health professionals’ interviews 289](#_Toc54016681)

[9.9 Appendix 9: Table showing overlap between mothers’ and health professionals’ interviews 304](#_Toc54016682)

[9.10 Appendix 10: Reflexive notes – samples 316](#_Toc54016683)

[References 318](#_Toc54016684)

# List of Tables

[Table 2.1: Summary of EBF in various LMICs. Only countries with EBF data in the last five years are presented in the table. 9](#_Toc43121818)

[Table 4.1: List of African countries according to United Nations classification. 49](#_Toc43121819)

[Table 4.2: Keywords used in searches 55](#_Toc43121820)

[Table 4.3: Summary characteristics of included studies 62](#_Toc43121821)

[Table 4.4: Breastfeeding initiation rates 79](#_Toc43121822)

[Table 4.5: Breastfeeding rates in percentages according to the type of feeding practices between one week and six months after birth. 82](#_Toc43121823)

[Table 4.6: Duration of breastfeeding 84](#_Toc43121824)

[Table 5.1: Number and sources of mothers recruited into the study. 103](#_Toc43121825)

[Table 5.2: Demographics and breastfeeding practices of participant mothers 105](#_Toc43121826)

[Table 6.1: Number and sources of health professionals recruited into the study 149](#_Toc43121827)

# List of Figures

[Figure 1.1: Preventive interventions’ impact on child mortality [5] 1](#_Toc43121828)

[Figure 1.2: Sustainable Development Goals [16] 3](#_Toc43121829)

[Figure 2.1: Infants exclusively breastfed for the first six months of life [45] 6](#_Toc43121830)

[Figure 2.2: Global distribution of any breastfeeding rates at 12 months (Data from 153 countries between 2005 and 2013) [4] 13](#_Toc43121831)

[Figure 3.1: Map of Newcastle showing the North, East and Central regions 28](#_Toc43121832)

[Figure 3.2: Flow diagram showing process of data analysis 40](#_Toc43121833)

[Figure 3.3: Bourdieu's Theoretical Framework 45](#_Toc43121834)

[Figure 4.1: PRISMA flow diagram 60](#_Toc43121835)

# List of Abbreviations

ALSPAC – Avon Longitudinal Study of Parents and Children

aOR – Adjusted Odds Ratio

BME – Black and Minority Ethnicity

CASP – Critical Appraisals Skills Programme

CI – Confidence Interval

CINAHL – Cumulative Index of Nursing and Allied Health Literature

EBF – Exclusive Breastfeeding

EmBASE – Excerpta Medica dataBASE

EU – European Union

GDP – Gross Domestic Product

HIC – High-income countries

HIV – Human Immunodeficiency Virus

HMIC - Health Management Information Consortium

HP – Health Professional

HTA – Health Technology Assessment

IRAS – Integrated Research Application System

LMIC – Low- and- middle- income countries

MCS – Millennium Cohort Study

MDG – Millennium Development Goal

MEDLINE – Medical Literature Analysis and Retrieval System Online

MF – Mixed Feeding

NE – North East

NHB – Non-Hispanic Black

NHS – National Health Service

NHS REC – National Health Service Research Ethics Committee

NIH – National Institute of Health

NIHR PROSPERO – National Institute for Health Research International Prospective Register of Systematic Reviews

NR – Not Reported

OR – Odds Ratio

ORS – Oral Rehydration Salt

PBF – Predominant Breastfeeding

PICO – Population, Intervention, Comparator, Outcome

PRISMA - Preferred Reporting Items for Systematic Review and Meta-Analysis

SDG – Sustainable Development Goal

SID – Sudden Infant Death

SPIDER – Sample, Phenomenon of Interest, Design, Evaluation, Research type

UK – United Kingdom

UNICEF – United Nations Children Fund

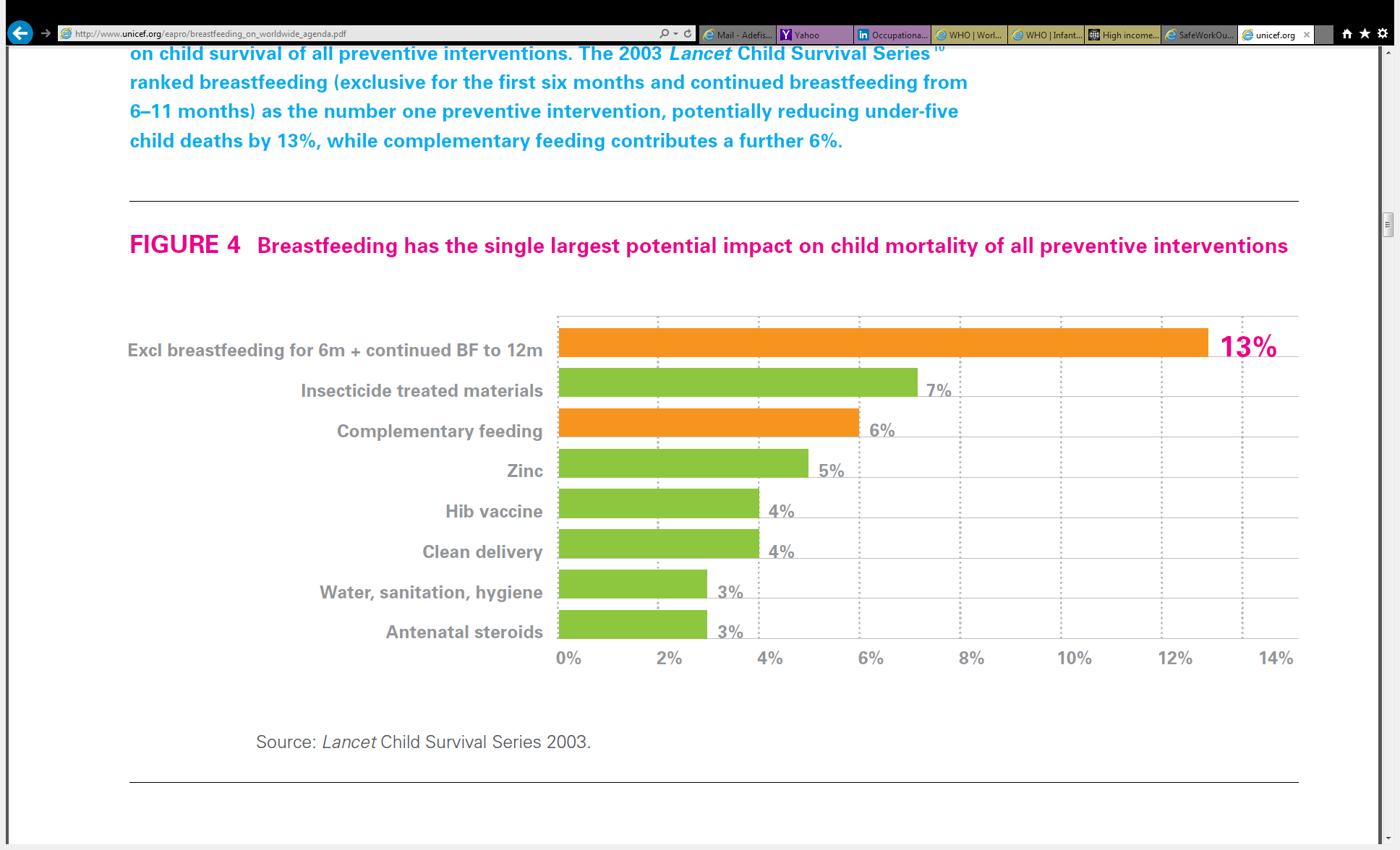
USA – United States of America

WHO – World Health Organisation

# Chapter 1: Introduction

1. Breastfeeding provides optimal nutrition for infants for healthy growth and development and can be considered a low cost intervention. Early initiation and prolonged breastfeeding have been shown to potentially be the single largest impact on child survival [1, 2] and are ranked the highest preventive measure in reducing under-five mortality [2] (Figure 1.1). Early initiation of breastfeeding is described as initiating breastfeeding within the first hour after birth, and prolonged breastfeeding involves exclusive breastfeeding (EBF) for six months and continued breastfeeding up to two years. As many as 1.4 million deaths and 10% of disease burden in children less than five years is attributable to suboptimal infant feeding practices [3]. Increasing breastfeeding rates to a near universal level is predicted to be able to reduce under five mortality by 823,000 each year and also reduce maternal deaths from breast cancer by 20,000 [4].

Figure 1.1: Preventive interventions’ impact on child mortality [5]



Breastfeeding has been steadfastly associated with a reduction in infant morbidity and mortality, especially in low- and middle-income countries (LMIC)[[1]](#footnote-2) [7-9] where it is associated with significant reductions in mortality from infectious diseases, and its protective effect has been shown to be effective to the second and third years of life [7, 10]. This protective effect of breastfeeding is more prominent in areas with higher prevalence of poverty, malnutrition and poor hygiene [11]. Breastfeeding has been shown to effectively reduce the exposure of infants to disease causing organisms in the environment as well as building up immunity against infections [12]. More compelling is the fact that even in malnourished circumstances (in mothers), breast milk still contains all the necessary antibodies and nutrients to protect a child from infections [13], leaving the breastfed infant with adequate nutrients for healthy growth. This indicates that, even in severe poverty situations, breastfeeding can serve as a low cost infant feeding method.

Similarly, in high-income countries (HIC)[[2]](#footnote-3), despite good environmental conditions and access to clean water, breastfeeding has been shown to reduce episodes of diarrhoeal morbidity and mortality during infancy [9]. Additionally, research suggests that breastfeeding may have protective effects against Sudden Infant Death (SID) syndrome especially in developed countries [14]. Breastfeeding equally serves to reduce child undernutrition, which was a major strategy implemented to achieve Millennium Development Goal (MDG) Four: “Reduce by two-thirds, the under-five mortality rate between 1990 and 2015”, and MDG One: “Halve the proportion of people who suffer from hunger” [15]. Currently, breastfeeding is an important strategy in meeting Sustainable Development Goal (SDG) Two and SDG Three launched in January 2016 (See Figure 1.2).

Figure 1.2: Sustainable Development Goals [16]



In addition to the benefits provided to the infant, breastfeeding is beneficial to the mother as it is associated with a reduction in the development of various cancers [17-21] and maternal depression [22]. It is also associated with increased infant to mother bonding [23] and may aid quicker return to pre-pregnancy weight [24]. The World Health Organisation (WHO) and United Nations Children’s Fund (UNICEF) therefore recommend optimal breastfeeding for all infants which involves:

Initiating breastfeeding within the first hour after birth,

EBF for the first six months of life,

Continued breastfeeding for two years or more with complementary feeding that is safe, nutritionally adequate, age appropriate and responsive beginning from the sixth month, and

Breastfeeding on demand – as often as the child wants it. [1, 25, 26].

The United Kingdom (UK) guidance on infant feeding supports this recommendation that infants should be exclusively breastfed until they are six months of age [27]. Despite this, the WHO reports that between 2007 and 2014, only 36% of infants worldwide were exclusively breastfed within the first six months of life [25]. The cost of not breastfeeding is enormous from the treatment and management of both short-term and long-term conditions that may result. In the UK, the National Health Service (NHS) spends millions of pounds yearly in managing both short-term and long-term effects of not breastfeeding [28]. Increasing breastfeeding among infants less than six months of age to 90% in Brazil, China and the United States of America (USA) and to 45% in the UK has been shown to reduce the cost of managing common childhood illnesses by up to US$2.45 billion in the USA, US$29.5 million in the UK, US$223.6 million in China and US$6 million in Brazil [29]. In addition to the health-related effects of not breastfeeding, the most recent Lancet series on breastfeeding [4, 30] showed that there are economic costs from reduced cognitive functions resulting from not breastfeeding. These economic costs reached as high as US$300 billion in 2012, 0.49% of the world’s gross national income.

Over the last two decades, improving breastfeeding rates has been a major public health focus of the UK government, leading to the inclusion and maintenance of breastfeeding as a key indicator for health improvement in the public health outcomes framework for England [31]. Efforts to improve EBF rates in the UK include interventions such as the Baby Friendly Initiative [32], financial incentives for breastfeeding [33] and school-based breastfeeding education [34], amongst many others. Despite this, the rates of breastfeeding in the UK remain low with only about a third of mothers breastfeeding at six months. In the UK, breastfeeding has been identified as a major contributor to health inequalities [35]. The last Infant Feeding Survey, carried out in the UK in 2010, [36], showed that the highest incidences of breastfeeding were observed among ethnic minority mothers. Yet, there was a steep decline from an initiation rate of 81% to 69% at one week [36]. Ethnicity[[3]](#footnote-4) and culture, among other socio-demographic and behavioural factors, have been shown to play a major role in influencing mothers’ infant feeding practices [37]. Few studies [38, 39] have been carried out on the Asian population in the UK but no qualitative studies have been carried out in the UK to understand the impact of migration on the breastfeeding decision and practices of African mothers. Studies carried out among African immigrant mothers in the UK have either assessed the barriers to EBF only [40], or were restricted in terms of the population being studied such as refugees [41] or UK-born African mothers [42].

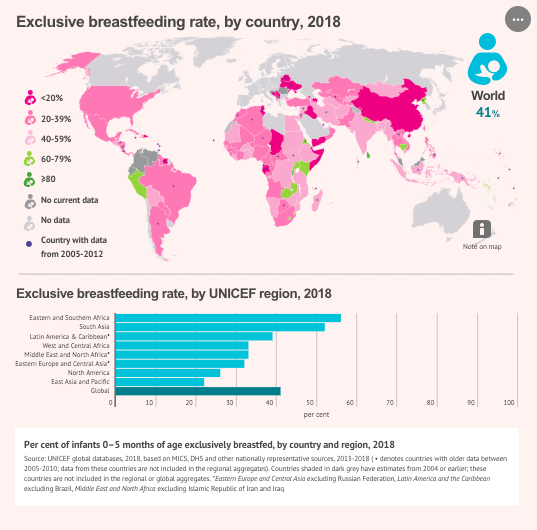
This study seeks to understand the infant feeding culture and practices of African immigrants in the UK, a population that has been growing steadily in recent years from 0.8% in 2001 to an estimated 2.2% in 2018 [43], and the role acculturation may play on these practices. Findings from this study will provide information that will be useful to health professionals who provide care and health services to immigrants of African descent in the UK who are pregnant or have infants, policy makers and health care planners to make provision for immigrant mothers in care planning and to further encourage and promote optimal breastfeeding practices.

# Chapter 2: Literature Review

## Chapter Introduction

There is sufficient evidence to show that breastfeeding is widely practiced in developing countries. Countries in Eastern and Southern Africa have been shown to have the highest prevalence of EBF at 47% in 2010, followed by South Asia at 45% [44]. Overall, the EBF rate of infants less than six months old for all LMICs put together is 39% compared with the global EBF rate of 41% [45]. Figure 2.1 below shows the EBF rates from country to country and graphically explains the wide variations that exists across countries even within the same region.

Figure 2.1: Infants exclusively breastfed for the first six months of life [45]



In this chapter, I reviewed existing literature on breastfeeding practices in LMICs and HICs, and the factors influencing breastfeeding in both regions, highlighting the differences between both regions. Thereafter, I present evidence on the impact of migration and acculturation on breastfeeding practices.

A systematic search of the literature was carried out to identify studies relevant for the systematic literature review. MEDLINE and CINAHL databases were searched from 1995 to 2016 January. This period was selected because it provides the most recent and up-to-date findings on the subject and it is believed that work done prior to this time period would have been accounted for in existing systematic reviews [9, 46, 47] . The following search terms were used: ((breastfeeding OR breast milk OR Lactation) AND ((developing countr\* OR Africa OR Asia OR South America) OR (developed countr\* OR Europe OR North America OR Australia OR New Zealand))). The results were then screened for relevant articles with information about breastfeeding practices and factors influencing infant feeding behaviours. Major findings from studies retrieved are detailed in the following paragraphs.

For the purpose of this study, breastfeeding will be classified under the following headings as defined by the UNICEF [1, 48]:

* EBF: providing an infant with only breastmilk (including breastmilk that has been expressed or from a wet nurse) and nothing else, except for oral rehydration salt (ORS), medicines and vitamins and minerals.
* Predominant breastfeeding (PBF): providing an infant with breast milk as the predominant source of nourishment (including milk expressed or from a wet nurse). However, the infant may also have received liquids (water and water-based drinks, fruit juice) ritual fluids and ORS, drops or syrups (vitamins, minerals and medicines).
* Mixed feeding: providing an infant with breastmilk and any other food or liquid including water, non-human milk and formula before six months of age.
* Complementary feeding: The child receives both breast milk and solid (semi-solid or soft) foods. It is not recommended to provide any solid, semi-solid or soft foods to children less than six months of age.

## Breastfeeding in Low- and Middle- Income Countries

Breastfeeding is considered a widespread practice in developing countries with more than 95% of infants receiving breast milk in Africa [49]. Only one in 25 infants (4%) never receive any breast milk in LMICs, compared with 25% in HICs [26], with a third of all children in LMICs exclusively breastfed for six months [50]. At one year of age, two-thirds of infants in LMICs are still breastfeeding compared with one-fifth in HICs [29]. Most LMICs appear to have developed cultures that promote breastfeeding, although the actual beliefs and practices may vary from country to country, and within countries [51]. In Mozambique, not breastfeeding is rare and in fact associated with stigma [52], with non-breastfeeding mothers assumed to be HIV-positive and stigmatised by society [53, 54]. Similarly, in Zambia, another African country, breastfeeding was observed to be widely practiced and the participants of the study (mothers, fathers, grandmothers and health staff) generally agreed to the practice of EBF, although more mothers practiced PBF [55]. This may have been as a result of the knowledge and perception of EBF among participants and how the participants may have defined the term. However, the study did not report any reasons for the discrepancies [55]. In Malawi also, breastfeeding was observed to be a widespread phenomenon according to a cross-sectional study of 349 mothers [56]. A total of 69% of these mothers initiated breastfeeding and 27.5% of mothers were exclusively breastfeeding at four months. At six months, the rates of EBF had reduced to 7.5%. Meanwhile, PBF rates were 64.8% at four months and 28.1% at six months. PBF was more widely practiced than EBF as mothers were prone to introducing herbal water to their infants within the first two weeks of birth [56].

According to Agunbiade and Ogunleye, [57] breastfeeding is described as a tradition to be preserved as part of the Nigerian culture across the various ethnic groups present in the country. More than 90% of mothers who participated in the study had initiated breastfeeding and they described the practices as *“a normative expectation of being a mother”.* However, only 19% of mothers in the study were reported to exclusively breastfeed. PBF was equally observed to be a more common practice with 48% of infants less than six months predominantly breastfed [58]. Likewise, a study conducted in Cameroon reported that breastfeeding prevalence ranges between 68.9% in the South west regions and 90% in the North West regions, although EBF rates are relatively low at 20% [59, 60].

In a review of the literature around breastfeeding practices in developing countries, Daglas and colleagues [61] observed that countries such as Mali, Sierra Leone, and Nepal regard the breast as an organ primarily for use in feeding infants [61]. A report from Bangladesh showed that the majority of Bangladeshi mothers breastfeed their infants; 64% of infants less than six months were exclusively breastfed and 90% received breast milk until two years of age [62]. More recent data, however, reports a reduced EBF at six months rate of 55.3% as shown in Table 2.1. This table presents EBF rates at six months in various LMICs in the last five years. Exclusive breastfeeding rates range from 0.1% in Chad to 86.9% in Rwanda. Chad has a very low EBF rate mainly because knowledge of EBF is poor as the mothers believe that with the very high temperature of the country (up to 45oC), infants need additional water or juice to avoid dehydration and ensure survival [63].

Table 2.1: Summary of EBF in various LMICs [59]. Only countries with EBF data in the last five years are presented in the table.

|  |  |  |
| --- | --- | --- |
| Country | Year(s) | Infants exclusively breastfed for the first six months of life (%) |
| Afghanistan | 2015-2016 | 43.1 |
| Angola | 2015-2016 | 37.4 |
| Armenia | 2015-2016 | 44.5 |
| Bangladesh | 2014 | 55.3 |
| Belize | 2015-2016 | 33.2 |
| Bhutan | 2015 | 51.4 |
| Bolivia | 2016 | 58.3 |
| Burkina Faso | 2014 | 50.1 |
| Burundi | 2016-2017 | 82.3 |
| Cambodia | 2014 | 65.2 |
| Cameroon | 2014 | 28 |
| Chad | 2014-2015 | 0.1 |
| Congo | 2014-2015 | 32.9 |
| Cote d’Ivoire | 2016 | 23.5 |
| Cuba | 2014 | 32.8 |
| Dominican Republic | 2014 | 4.6 |
| Egypt | 2014 | 39.5 |
| El Salvador | 2014 | 46.7 |
| Eswatini (Swaziland) | 2014 | 63.8 |
| Ethiopia | 2016 | 56.5 |
| Ghana | 2014 | 52.1 |
| Guatemala | 2014-2015 | 53.2 |
| Guinea | 2016 | 35.2 |
| Guinea-Bissau | 2014 | 52.2 |
| Guyang | 2014 | 21.1 |
| Haiti | 2016-2017 | 39.9 |
| India | 2015-2016 | 54.9 |
| Kazakhstan | 2015 | 37.8 |
| Kenya | 2014 | 61.4 |
| Kyrgyzstan | 2014 | 40.9 |
| Lesotho | 2014 | 66.9 |
| Malawi | 2015-2016 | 59.4 |
| Mali | 2017 | 37.3 |
| Mauritania | 2015 | 41.4 |
| Mexico | 2015 | 30.1 |
| Myanmar | 2015-2016 | 51.2 |
| Nepal | 2016-2017 | 65.2 |
| Nigeria | 2016-2017 | 23.3 |
| Paraguay | 2016 | 29.6 |
| Peru | 2016 | 69.8 |
| Rwanda | 2014-2015 | 86.9 |
| Samoa | 2014 | 70.3 |
| Sao Tome and Principe | 2014 | 71.7 |
| Senegal | 2016 | 36.4 |
| Serbia | 2014 | 12.8 |
| Solomon Islands | 2015 | 76.2 |
| South Africa | 2016 | 31.6 |
| Sri Lanka | 2016 | 82.0 |
| Sudan | 2014 | 54.6 |
| Tajikistan | 2017 | 35.8 |
| Thailand | 2015-2016 | 23.1 |
| Timor-Leste | 2016 | 50.2 |
| Turkmenistan | 2015-2016 | 58.3 |
| Uganda | 2016 | 65.5 |
| United Republic of Tanzania | 2015-2016 | 59.0 |
| Zimbabwe | 2015 | 47.1 |

Although the EBF rate is below average in many of the countries shown in the table 2.1 above, most LMICs have better rates of EBF compared with HICs. Nevertheless, there have been substantial improvements recorded in LMICs especially in Africa and South East Asia. Compared to earlier reports [64], knowledge of breastfeeding appears to have increased over the last decade and most mothers, regardless of education or socio-economic status are aware of what it means to exclusively breastfeed and the benefits it may have on their infants [63, 65]. Mothers are equally knowledgeable of possible detrimental effects that may arise from early weaning and inadequate complementary feeding practices [65].

According to a study conducted in Ghana [65] involving focus groups with 35 mothers from antenatal clinics, the mothers were generally aware of what it meant to exclusively breastfeed, describing it as *“giving only breast milk for six months, after which breast milk alone was no longer adequate”*. This knowledge was more succinct in some who explained that the reason EBF is recommended is because water given to an infant may not be totally clean and may be dangerous to the infant’s health, but if the water could be purified well enough, it could be given to an infant. In South West Nigeria, most mothers (94%) were found to be knowledgeable about EBF although only about 20% of the grandmothers participating in the study could define EBF appropriately, despite previous breastfeeding experiences [57]. In certain other regions of Africa however, especially in the east of Africa, knowledge of EBF appeared to be considerably low with about a third of the study participants in Southwest Ethiopia having no knowledge of EBF and poor knowledge of attaching the baby to breast [66].Over half of nursing students in an Institution in Egypt had no knowledge of EBF and almost all students were unaware of the EBF recommendations [67]. However, in general, most studies reported adequate knowledge of breastfeeding practices and its benefits to their infants.

Early initiation of breastfeeding was a fairly uncommon practice observed in most studies [58, 65, 68-70]. Due to the variation in methods of reporting across these studies, a precise timing for initiation is difficult to estimate but ranged from immediately after birth [58, 69, 70] to four days [68], and between 16% and 93% across countries [59]. However, most studies [58, 65, 70-72] reported that breastfeeding was initiated within the first day of birth. In a qualitative study conducted in Mozambique, breast milk was found to be the first food given to the neonate, although this may not be within the first hour of birth [52]. Similarly, in a Ugandan study, 39% had initiated breastfeeding within the first hour, 50% within two hours, and 68% by the end of the first day, although breastfeeding was not initiated in some up to the third day [73]. Studies conducted in Ghana [68], Nigeria [57, 58, 72] and Ethiopia [66] consistently observed that breastfeeding is the choice food for infants and most often the first food product administered usually within the first day of birth, but early initiation within the first 30 minutes to one hour after birth was very low.

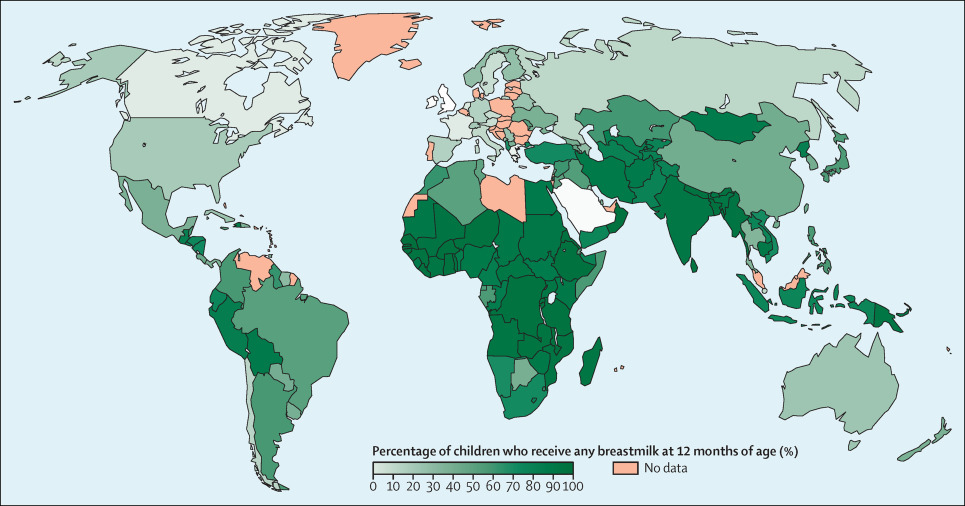
EBF for six months, on the other hand, is not a prevalent practice in developing countries with most studies reporting EBF rates at six months of less than 20% [56-58, 73, 74]. Due to the customs and traditions of mothers living in LMICs, which most often requires that infants are introduced to other liquids such as gripe water, sugar water, herbal concoctions and honey, EBF is a more challenging practice. PBF was thereby a more common practice observed across studies. Although in more recent times, with the increase in awareness of EBF and its benefits, rates of EBF are on the increase, and it appears that mothers in Ghana are beginning to let go of inherent traditions to practice EBF [72]. However studies in Nigeria [52, 69, 72] report otherwise and this may not be a generalisable situation but may only be reflective of the local area the study was conducted in. This further substantiates the evidence that the knowledge and practices of breastfeeding across developing countries varies widely and the influence of traditions and culture cannot be under-estimated. Efforts to increase breastfeeding rates may require tackling the underlying cultural factors as opposed to merely increasing awareness of recommended breastfeeding practices.Prolonged breastfeeding up to one year and beyond was, however, a more common practice in developing countries. In a study involving 28 developing nations, prolonged breastfeeding in Bangladesh had the longest median duration at 33 months with other countries following closely behind, many of which had a median of over 12 months [71]. Individual studies also reported that most mothers continue breastfeeding for up to one year or intend to continue [52, 57, 72, 75].

The practice of pre-lacteal feeding was not reported in many studies but was observed as a major impediment to practicing EBF across developing countries, particularly in South East Asia [76, 77]. Owing to the existence of various cultural and traditional beliefs, mothers are often compelled to feed their neonates with sugar water, honey, gripe water or herbal/traditional concoctions prior to breastfeeding. This is often influenced by the infant’s grandmother or traditional birth attendants who may have cultural beliefs about the benefits of such pre-lacteal feeds, which are dependent on the sex of the newborn, mother’s age and place of birth among many other factors [68, 70, 76]. Pre-lacteal feeding may equally be influenced by certain traditional rights mothers (first-time mothers in particular) may have to undergo to determine that breast milk is suitable for the infant’s consumption or for purification of the breast milk [68]. In a study of 115 mothers in South Africa [78], only two mothers reported giving traditional fluids to their infants prior to breastfeeding initiation. All the mothers in the study had given their infants colostrum which implies a good understanding of its benefits to their infants’ health. Additionally, early initiation of breastfeeding and discarding colostrum were found to be uncommon in a study conducted in Malawi [56].

The mothers who were breastfeeding were not shown to have common characteristics across the studies. However, a common finding in the studies was that immediate family such as infant’s grandmothers and infant’s father, as well as traditional birth attendants had the greatest influence on breastfeeding practices adopted by the mother [52, 55, 57, 65, 68]. This influence also manifested in relation to the place of birth of the infant as infants that were delivered within the community usually by a traditional birth attendant were more likely to be given water or herbal concoctions [65, 68]. Increasing urbanisation was equally found to be associated with poorer breastfeeding practices in South Africa and Ghana [65, 78] and religious factors may also influence infant feeding decisions and practices [68].

A recent systematic review exploring the factors influencing EBF practices in developing countries showed that the existence of barriers to breastfeeding in developing countries such as the perception of insufficient milk for the infant was not enough to halt breastfeeding practices [46]. The study found that mothers living in these countries develop strategic plans, which mostly related to the presence of a strong support system from friends and family, alongside their inherent personal characteristics in order to succeed at breastfeeding. This suggests that breastfeeding is considered an inherent part of an infant’s health and growth in developing countries as mothers consider it a *“natural, joyful and connecting experience”* to breastfeed their infants [46].

Figure 2.2: Global distribution of any breastfeeding rates at 12 months (Data from 153 countries between 2005 and 2013) [4]



## Breastfeeding In High-Income Countries

Although nowhere near ideal, breastfeeding rates in LMICs are relatively higher than in most HICs. In the USA, about 18% of infants are EBF at six months [79], 26% in Canada [79], 15% in Australia [79], 11% in Sweden [80] and generally less than 30% in the majority of the countries across Europe [59]. As varied as the rates are across HICs, breastfeeding beliefs, attitudes and practices also vary widely. In Greece for instance, concerns about the weight and diet of infants, mothers’ smoking status, and changes to the breasts impact on the breastfeeding practices of the mothers [61]. However, mothers who breastfeed have been shown to have similar characteristics across all HICs. Breastfeeding mothers are more commonly white, better educated, of higher socio-economic class, older, married and not smoking [47, 81, 82].

There have been observed improvements in breastfeeding across HICs over the last two decades. Initiation rates have experienced tremendous increase from as low as 24% in the 1990s [81] to as high as 96% in Australia in 2010. Similar high rates of breastfeeding initiation were recorded in other countries between 2010 and 2014; 89% in Canada [83], 81% in the UK [36] and 79% in the USA [84] as reported in the national surveys from the respective countries. Unfortunately, there is a rapid decline in breastfeeding within the first few weeks after birth, as almost half of the infants who initiated breastfeeding stop before six months [79, 85]. In a 2004 review of the literature around the initiation and duration of breastfeeding in developed countries [86], countries within Europe and Australia were found to have the highest initiation and duration of breastfeeding. In Europe, initiation rates ranged from 74% to 99.5% and breastfeeding at six months ranged from 19% to 52%. Similarly, in Australia, breastfeeding initiation was between 91 and 96% and breastfeeding at six months was between 50 and 52%. On the contrary, breastfeeding initiation in the USA at 79% has consistently been the lowest among other developed countries [84]. However, breastfeeding duration in the same region has shown greater improvements with more mothers (49%) still breastfeeding at six months than in UK [36].

A US study [87] assessing the characteristics of breastfeeding practices among US mothers showed that more than half of the mothers who participated in the study exclusively breastfed their infants for three months before introducing supplementary foods such as formula milk and solids. However, at six months, less than 10% of the mothers were EBF and more mothers were practising PBF. In the USA, being of a minority ethnic group (e.g. African-American or Latina) has been associated with reduced breastfeeding practices [88]. This may be attributable to the fact that the majority of African-Americans in the USA belong to the lower socio-economic class, who are less likely to initiate and continue breastfeeding. In Italy, Giovannini and colleagues [89] found that of all mothers who initiated breastfeeding, more than half had stopped at six months. Prolonged breastfeeding is very rare and the median duration of breastfeeding was five months.

Early initiation of breastfeeding is an equally common practice in HICs although a few inconsistencies exist in some studies. In Australia, initiation of breastfeeding within the first hour of an infant’s life is said to be practiced in up to 92% of mothers [79]. Similarly in Canada and the USA, most mothers (89% and 77% respectively) begin breastfeeding soon after birth [83, 84].

Although breastfeeding rates in HICs are lower than WHO recommendations, the rate of breastfeeding in the UK is of particular interest. Despite the large percentage (81%) of mothers initiating breastfeeding, there is a drastic reduction within the first six weeks of an infant’s life to 55% and then to 34% at six months [36]. Worse still are the alarmingly low EBF rates at six months, with only about 1% of mothers exclusively breastfeeding (69% at birth, 23% at six weeks and 12% at four months) [36, 90]. Among other European countries and other HICs globally, the UK records one of the poorest breastfeeding rates [36, 91].

## Factors Influencing Breastfeeding

Several factors have been identified to influence breastfeeding practices including mother’s beliefs and knowledge about breastfeeding, support available, availability and advertising of formula milk alternatives, ethnicity, perception of cultural norms, and economic factors [37, 82, 92-99]. Breastfeeding self-efficacy, defined as a mother’s belief in her ability to do what is required to breastfeed her infant, has also been identified as a predictor of breastfeeding duration and patterns [100-102]. Earle [37] found that many mothers made decisions about infant feeding practices long before conception and most of these decisions were based on hearsay, societal acceptability, and cultural beliefs. Such beliefs and assumptions held tenaciously create resistance to national and international recommendations on infant feeding [103].

The major barriers to EBF in LMICs has been associated with cultural beliefs, generational knowledge and practices, as well as the influence of health professionals in promoting optimal breastfeeding practices. According to a systematic review on the factors influencing EBF for six months in LMICs [46], the most common factors cited were maternal employment, perceived insufficiency of milk for the infant and medical/health related factors such as infant or mother’s illness. Additional factors were observed in a Ghanaian study [65] where mothers ceased to exclusively breastfeed due to the perception that the infant may get addicted to breast milk, the influence of family members (neighbours, grandmothers and fathers), stress attached to breastfeeding and a new pregnancy. Grandmothers in particular were found to play a major role in influencing the decision to breastfeed, which corresponds to findings from a study on Bangladeshi mothers in the UK [104]. These latter factors are common to both developing and developed countries as highlighted in studies conducted in various regions of the world [57, 93, 105-107].

In addition to common barriers to continuing breastfeeding, the perception of breastfeeding in HICs has been a major impediment to its initiation and practice. In the USA, the breast is perceived in a sexual light, and the norm in most cases is that breastfeeding be reserved for neonates only, and carried out in private spaces [61, 108]. Similarly, many women in the UK perceive breastfeeding as embarrassing, disgusting, inconvenient, and socially unacceptable [37, 85]. In addition to these general perceptions of breastfeeding, certain factors have been shown to mitigate against breastfeeding. Mothers’ expectations about breastfeeding and how infants ought to behave if they are satisfied with their feeding has been reported as a major hindrance to continuing breastfeeding [105, 107]. Additionally, certain difficulties in breastfeeding have been cited in various studies such as leaky breast, latching difficulties, and infant spitting up [81]. Furthermore, a qualitative study carried out in the UK showed that mothers sometimes opted out of breastfeeding as a means to involve fathers in the care and feeding of their infants [109].

Socio-demographic and behavioural factors have equally been shown to influence breastfeeding practices, which include socio-economic status, area of residence, smoking status, maternal age, maternal education, maternal obesity, ethnicity and area-based deprivation [36, 81, 110-114]. However, variations exist between LMICs and HICs. In LMICs, mothers of lower socio-economic status are more likely to continue breastfeeding for longer compared with mothers of higher socio-economic status [115]. On the contrary, in HICs, mothers of higher socio-economic status have a higher likelihood to breastfeed for longer [115]. Owing to the differences in breastfeeding practices between LMICs and HICs, and the differences in factors influencing breastfeeding in both regions, the impact of migration and acculturation on breastfeeding practices has been increasingly studied in recent years. Several studies have shown that migration from a LMIC into a HIC may have negative impacts on breastfeeding initiation, exclusivity and duration [42, 104, 116-123].

Various reasons have been identified for making the decision to breastfeed, the most common of which surround the health benefits to the infant. Mothers across studies in Africa often describe the benefits as *“ensuring a strong and healthy baby”* [64], prevent/reduce illness [64, 65], intelligent babies, more convenient and less expensive [65].

## Migration

Migration is a phenomenon that has been studied over the years in relation to health. It has been associated with increased morbidity, particularly in mental health conditions such as depression, chronic illnesses such as diabetes and infectious diseases such as tuberculosis [124-126]. This may be as a result of inherent characteristics and experiences in migrants’ countries of origin before departure, experiences during transit as well as experiences on arrival in host countries such as war, socio-economic hardship, loss of loved ones, language barrier, discrimination, and marginalisation [127, 128].

Evidence shows that migrants will generally experience better health than non-migrant counterparts remaining in their host countries and those born in Western countries [127, 129-131]. This phenomenon is referred to as the healthy migrant effect, where there appears to be a selection of healthier and younger individuals to undergo migration, leaving voluntary migrants typically healthier than their counterparts [124, 126-128] and upholding the beliefs and practices of their countries of origin [121, 132, 133]. This health status has been measured in terms of mortality rates [134], life expectancy, birth outcomes [135] and risk of illness [128]. Although, there has equally been evidence that after migration, migrants may experience poorer health than non-migrants, it is mostly explained by the concept of acculturation[[4]](#footnote-5) [136, 137] and/or the migration process taking its toll on their health [128]. Messias and Rubio [127] showed that challenges encountered during migration may have a role to play in the deteriorating health status of migrants as they settle in the host environment. This is often worse if migration had been prompted by desperation or frustration from dissatisfaction from living conditions.

In a study on health status of children in the USA [138], the authors found that new Asian migrants exhibited better health, as measured by reduced absenteeism from school, chronic illnesses, learning disabilities and use of prescription medication as health indicators, than Asian children born in the USA and non-Hispanic white children [138]. However, children who had acculturated and naturalised had no significant difference from US-born children, implying that acculturation had led to the development of similar status to US-born children. The same pattern was observed in relation to coronary heart diseases, angina, myocardial infection, body mass index, blood pressure and depression, where increased levels of acculturation were associated with deteriorating health status [138].

## Migration and Breastfeeding

Similar findings have been found for breastfeeding where new immigrants adhere to their pre-informed beliefs and culture relating to pregnancy, childbearing and breastfeeding but relinquish these as they interact with others who are unaware of their customs [139]. Although immigrant women are mostly from countries with higher breastfeeding practices [137], there is a drastic reduction upon arrival in a new environment [140]. The rate of EBF based on national Gross Domestic Product (GDP)[[5]](#footnote-6) as described by the World Bank shows that EBF rates tend to reduce the more affluent a country is, putting migrants from LMICs into HICs at risk of reduced breastfeeding rates. Infants exclusively breastfed for the first six months of life between 2007 and 2014 in LICs were 47%, in lower-middle income countries 33%, in upper-middle-income countries 29% [59].

A US study suggests that mothers were more likely to formula feed the more acculturated they were to the country [142]. Additionally, according to Gibson-Davis and Brooks-Gunn, there may be a 4% decrease in the possibility of breastfeeding with every additional year spent in the USA [119]. This trend has been observed in various US studies showing that Hispanic women [143], Vietnamese women [144], Pakistani, Indian and Bangladeshi women [145] and Mexican women were observed to have differing breastfeeding practices upon acculturating to the USA. Persad et al [146] observed that women born outside the USA were more likely to have the intention to breastfeed compared with US-born mothers.

Similarly, in the UK, Bangladeshi mothers have been studied and shown to have different infant feeding practices from their country of origin, most commonly due to lack of adequate family support following acculturation [104]. However, in an older study comprising a survey of 506 children in Glasgow, Goel et al [147] found that African immigrant mothers were not affected by the prevailing feeding practices, though Asian immigrant mothers had accepted the prevailing infant feeding practices of the host community. In a more recent qualitative study, Gallegos et al [94] found that African immigrant mothers in Australia maintained infant feeding practices from their countries of origin such as eating of special foods to aid milk production and enhance breastfeeding, but also adopted some of the practices of the host country such as not breastfeeding in public places which is contrary to practices in their home country. However, a few other studies conducted in Australia, Ireland and the USA [118, 121-123] have shown that there may be a “healthy immigrant” experience, where new immigrants uphold the beliefs and practices of their countries of origin and lose this with increasing acculturation.

With the dramatic increase in migration over the last 20 years, there is a need to understand how this may impact on breastfeeding in HICs. Migration today has reached an all-time high, with an estimated 214 million international migrants, almost half of which are female [148]. Net migration to the UK, explained by the difference between immigration and emigration, recorded a peak figure of 336,000 in June 2015 [149]. The figure has since reduced to 258, 000 in December 2018 [150]. Whereas net migration from the European Union (EU) countries has been on a decrease since 2016, net migration from non-EU countries has continually increased gradually from 2013 [150]. Likewise, in North East (NE) England, immigration of non-UK born migrants has increased by up to 74% since 2001 [151]. Indian born migrants represent the largest immigrant population in the NE England with the majority located in Newcastle upon Tyne. South African nationals among many other African countries also contribute to the increased non-UK born immigration in NE England (128,573), accounting for over 3,500 immigrants since 2010 [151].

To understand the impact of migration on women’s breastfeeding behaviours and practices, knowledge of how infant feeding practices and cultural beliefs are interwoven is required. My PhD focuses on immigrants to the UK from Africa. I will study the cultural beliefs around breastfeeding of African immigrants and how these may have changed as a result of experiencing a new culture after migration. Hence, this study begins with a systematic review of the literature, assessing the beliefs, attitudes and experiences of breastfeeding among African immigrants living in developed countries.

# Chapter 3: Methodology

## **Chapter Introduction**

This chapter presents the research methods and methodology adopted throughout this study. The research aim and objectives are presented, and the study design is explained and justified, after which the methods of the research including the methods of data collection, analysis and presentation of findings are then detailed. Thereafter, a reflection on the researcher’s position during the process of recruitment of participants and data collection is explained and the part this played in producing knowledge. The theoretical framework underpinning the analysis of the data generated during this study is also described.

## **Research** Aim And Objectives

### Aim

The aim of this PhD was to investigate the breastfeeding and weaning practices adopted by mothers who have migrated from Africa and reside in the UK.

### Specific objectives

The specific objectives of this study were:

1. To carry out a systematic review of the existing international literature on the beliefs, attitudes and experience of mothers who have migrated from Africa and reside in HICs;
2. To examine the perceived health status of infants as influenced by the breastfeeding and weaning practices adopted by African mothers living in the UK;
3. To understand the barriers, facilitators and practices of breastfeeding among mothers who have migrated from Africa and live in the UK;
4. To understand the perceptions of health professionals regarding the breastfeeding beliefs and experiences of African mothers living in the UK.

## Research Design

My research objectives were focused around understanding behaviour and how such behaviour translated into the interpretations of the social world. As a result, my research design needed to enable me to access the subjective understandings of the participants. Research design describes the strategy for the organising of a research project in a practicable way to ensure that the research questions can be answered, which involves the integration of the different components of a study in a structured way to include the methods of data collection, measurement, and analysis [155]. Two research designs were adopted throughout this PhD for the different phases of the research - a systematic review (Phase 1) and qualitative research within a cross-sectional research design (phases 2 and 3).

Phase 1 (objective 1): A systematic review of existing literature to understand the beliefs, attitudes and experiences of African immigrant mothers residing in HICs. Details of the methods for the systematic review are explained in Chapter 4. A systematic review was carried out prior to the qualitative research to assess and further explore key themes and variables that were identified during the literature review in relation to breastfeeding patterns and experiences among immigrant mothers from the African continent, to inform the topic guide for the qualitative interviews. As the interviews were carried out among mothers of African origin living in the UK, the systematic review provided reliable evidence and insight from different HIC on the beliefs and attitudes of African mothers who had migrated to these regions. Attempts were, therefore, made during the qualitative phase of the research to explore any evidence gaps identified during the systematic review and literature review processes, both of which were carried out separately and for different purposes. A literature review was initially conducted to provide a summary of the existing evidence in relation to breastfeeding, migration and acculturation, and how this may have contributed to the reported infant feeding practices globally (see chapter 2). A systematic review, on the other hand, was carried out to answer a more specific research question designed to not only inform the qualitative research phase of this PhD but to also put the findings of this PhD within a global context, as well as to inform policy and practice.

Phase 2 (objective 3): Qualitative interviews with African mothers living in the NE of England to identify and understand their breastfeeding and weaning practices in the UK. This phase aimed to investigate the breastfeeding practices and experience of African immigrant mothers living in the NE of England (see Section 3.6.3). A qualitative research design was selected because it allows for an effective exploration and understanding of belief systems, perspective and experiences [156]. Qualitative research was, therefore, used to obtain an in-depth understanding of the beliefs and experiences of African mothers following migration from their countries of origin to the UK.

Phase 3 (objective 4): Qualitative interviews with health professionals in the NE of England who care for African mothers after delivery of their infants. The aim of this phase was to understand the perceptions of health professionals about the breastfeeding practices and experiences of the African mothers they work with and care for. A qualitative design was used to elicit in-depth information from health professionals regarding their experiences working with African mothers and their perception of their beliefs around breastfeeding.

A mixed-methods study having both quantitative and qualitative elements, integrated by complementarity (using one method to explain, extend or compensate the other method) [152] was the initially intended approach for this study answering objectives one to three. However, I was unable to identify existing cohort data with all the necessary variables to answer the quantitative aspects, so my PhD adopted a mainly qualitative design. The existing cohort data that I was able to identify presented data on infant feeding practices of mothers in the UK but lacked data on the ethnic origins of the mothers. Some data sources such as the Millennium Cohort Study (MCS) [153] and the Avon Longitudinal Study of Parents and Children (ALSPAC) study [154] which had some data on ethnicity, did not present infant feeding practices in relation to ethnicity. Rather, infant feeding practices were presented for all mothers as a whole and not separated by ethnicity. As such, I was not able to address my second objective of examining the perceived health status of infants as influenced by the breastfeeding and weaning practices adopted by African mothers living in the UK.

A fourth objective was thereafter introduced as a result. As I progressed with my systematic review which was undertaken to inform the qualitative aspect of my research, I discovered that very few studies had explored the perceptions of health professionals to African mothers’ breastfeeding practices. After discussing this with my supervisors and PhD assessors, I decided to include a study to explore this area as a way to contextualise the findings from the work with mothers.

## Epistemology and Ontological Positions

Epistemology is an exploration of what should be counted as acceptable knowledge in a discipline or research [157]. This study sought to understand the breastfeeding experiences of African mothers and identify any factors influencing their breastfeeding practices. Therefore, this is a qualitative study that sits within an interpretivist methodology. Interpretivism is established on the need for a strategy that appreciates the differences between people and the objects of the natural sciences, therefore requiring the researcher to grasp the subjective meaning of social action [157]. Interpretivism is

associated with the philosophical position of idealism, and is used to group together diverse approaches, including social constructivism, phenomenology and hermeneutics; approaches that reject the objectivist view that meaning resides within the world independently of consciousness [158].

Taking an interpretivist stance often leads to surprising findings as a result of the multi-layer interpretations required. Participants present their interpretation of the world around them, which is then subject to further interpretation by the researcher. The researcher’s interpretation of the words of the participants provides an additional layer of interpretation, which may then be further interpreted in terms of concepts, theories and literature [157]. In essence, there are no objective ‘facts’ to be found in research but reality is found in the subjective understandings of the participants, and therefore, multiple truths may exist.

The ontological orientation of this research is constructionism. Constructionism is *“an ontological position that asserts that social phenomena and their meanings are continually being accomplished by social actors, implying that social phenomena and categories are not only produced through social interactions but are in a constant state of revision”* [157]. A contextual constructionist ontological position was taken during the analysis process. A contextual constructionist position identifies that the context in which the research was conducted (data collection and analysis) has an influence on the findings [159]. Four main areas that may impact on the production of knowledge as identified by Pidgeon and Henwood [160] are: (1) the participants’ understanding, (2) the researchers’ interpretations, (3) cultural meaning systems informing both participants’ and researchers’ interpretations, and (4) acts of judging particular interpretations as valid by scientific communities. I, therefore, recognise the findings from this study are subjective in nature, arising from the interactions between myself and the participants. However, the findings are grounded in the descriptions and perspectives of the participants and are based on the participants’ actual descriptions of events and experiences. [161]

## Methods

This section details the entire procedure of undergoing this research beginning from obtaining ethical approval to conducting the study, to the analysis of the research findings.

### Ethical approval process

Ethical approval was first requested from Newcastle University. This initial process helped to identify the need for further ethical approval from the NHS Research Ethics Committee (NHS REC) as human participants registered with the NHS were to be recruited into the study from postnatal clinics. The process of obtaining NHS REC approval involved completing an online application form via the Integrated Research Application System (IRAS). The process of obtaining IRAS approval to conduct this research began in November 2016 and full ethical approval was received in April 2017 (REC reference: 16/NE/0402) (See Appendix 1).

### Development of the topic guide

An initial draft of the interview topic guide for interviewing mothers was developed and piloted to ensure that the questions were clear and unambiguous to intending participants. The topic guide was informed by the literature review and systematic review undertaken as part of this PhD. The interview topic guide was piloted with two participants with similar characteristics to the criteria for inclusion in the study (See Section 3.6.4.1). Once the two pilot interviews were completed, the participants were asked if there were areas of the interview that were not clear or any questions that seemed difficult to understand. They were further asked to provide any thoughts or suggestions towards improving the topic guide in order to ensure that the study objectives were met. Although no additional questions were suggested for inclusion in the topic guide, a minor change to the structure of the questions was suggested which was effected prior to commencing the main interviews for the study. These pilot interviews were not included in the final analysis as the mothers interviewed during piloting did not meet all the inclusion criteria for the study. One mother had a three-year-old child which was outside the scope of the inclusion criteria, and the other mother met most of the inclusion criteria but was not of African origin. The pilot interviews were mainly carried out for the purpose of improving the topic guide.

The topic guide followed a logical structure beginning with demographic questions about the participant before questions regarding breastfeeding knowledge and experiences in the UK. The topic guide was used as a reference material to ensure that all relevant areas required to answer the research questions were captured during the interview but was not rigidly adhered to during the interviews. Mothers were allowed to express their thoughts and tell their stories in a way they felt comfortable doing and were only prompted with a question from the topic guide when they had either completed what they had to say without providing a response that aligns with the study objectives or if they were struggling with what to say. Also, this flexibility of the topic guide allowed mothers to prioritise issues associated to breastfeeding in order of perceived importance. Most often, the mothers discussed the issues contained in the topic guide while telling their stories, without being prompted. Additionally, the participants were encouraged to explore an area/theme further if it was originally absent from the topic guide. In doing this, ideas that had not originally occurred to me as the researcher were explored further and included as a question to be explored in subsequent interviews, thereby following an inductive approach to data generation. Qualitative research allows for this level of flexibility throughout the research process, making the research truly data-led and inductive [162].

Similarly, the topic guide for health professionals’ interviews was designed in the same manner as with the mothers’ topic guide, guided by findings from the literature review and systematic review in this PhD. Pilot interviews were not carried out for the health professionals’ phase of the study due to time constraints. This topic guide followed a logical structure, first asking health professionals to provide some information about their job, before questions relating to their knowledge and experiences supporting African mothers. As with the mothers’ interviews, new ideas emerging from any interviews were included into the topic guide to be explored further in future interviews. The topic guides are presented in Appendix 4.

### Study setting

The population of England is estimated at 54 million, which makes up approximately 84% of the UK population, with an average growth rate of 0.61% yearly. As a stand-alone country, it is the fifth largest country by population in Europe and the 25th worldwide [163]. The country covers an area of 130, 279km2 [163]. England has a majority white population (85.4%) including non-English immigrants, followed by Asians (7.8%) and blacks (3.5%) [163].

There are nine geographical regions in England namely: NE, North West, Yorkshire and Humber, East Midlands, West Midlands, East of England, London, South East and South West [164]. This study was carried out in the NE region of England, which has 2% of international migrants in the UK [164]. This was due to its proximity and the limitations of time and finances to travel to other locations to recruit participants.

NE England is divided into eight counties namely: County Durham, Darlington, Hartlepool, Middlesbrough, Northumberland, Redcar and Cleveland, Stockton-on-Tees, and Tyne and Wear [43]. Tyne and Wear consists of five metropolitan boroughs; Gateshead, Newcastle upon Tyne, North Tyneside, South Tyneside, and Sunderland [43]. Of the 2,616,000 residents in NE England, 46% are from Tyne and Wear [43]. Of the total population in Tyne and Wear, 1.07% (13,000) are reported as being born in an African country, which accounts for 56.5% of all Africa-born residents in NE England [43]. Newcastle upon Tyne (mainly referred to as Newcastle) alone accounts for over half (7,000) of the Africa-born population in Tyne and Wear [43]. Recruitment of participants for this study was therefore concentrated more in Tyne and Wear with a major focus on Newcastle. However, a few participants were recruited from Gateshead and South Tyneside.

Four areas of Newcastle (described as clusters by the health visiting team) were included in the recruitment of participants namely: the city (central Newcastle), West End (covering Arthurs Hill, Fenham and Bensham areas), North end (Jesmond and Gosforth), and the East end (Heaton, High Heaton, Byker, Wallsend and Walker). Attempts were made to recruit participants from all clusters.

Figure 3.1: Map of Newcastle showing the North, East and Central regions

A close up of a map

Description automatically generated

The Central region covers areas of the city and the West end.

### Study population and recruitment of participants

This section provides details about the populations that were recruited into the study and how they were identified.

#### Inclusion and exclusion criteria

Two separate populations were included in the study: African mothers, and health professionals who support African mothers following the delivery of their child and up to two years after.

**African mothers:** The study participants were mothers who originated from an African country and had been living in the UK for at least six months. To be included in the study, mothers had to meet the following criteria:

1. be of African descent (i.e., born in an African country and migrated to the UK at least six months earlier, or born in the UK but having one or both parents from an African country);
2. have a healthy infant (determined by asking health visitors or asking mothers if their infants had any conditions that prevented them from being breastfed);
3. be aged between 18 and 49 years;
4. be UK residents who have lived in the country for at least six months;
5. be identified by the health visitors who had agreed to participate in the recruitment process as not being of concern (i.e. having no underlying health or social issue that could be of concern). The health visitors who have access to the health records of the mothers they support were able to identify if there were any medical concerns that impacted on a mother’s ability to breastfeed such as HIV status or social concerns such as mothers being separated from their infants at birth. The health visitors were therefore responsible for screening based on this information and only approached those mothers who had no underlying concerns.

Breastfeeding status was not a pre-requisite criterion for inclusion in the study, therefore whether a mother breastfed her infant or not, they were eligible for study inclusion provided the above criteria were met. Mothers who were not of African origin were excluded from the study even if they were of Black or Black British ethnicity (e.g. Caribbean mothers). Mothers of African origin who had been living in the UK for less than six months or had been present in the UK for up to six months but were not resident in the UK, were excluded from the study. Any mothers with known HIV positive status were not approached for the study. As HIV status is a sensitive subject, only health visitors who had access to health records were able to assess this. Mothers recruited by other means who agreed to take part in the study were assumed to be HIV-negative. No information on HIV status was disclosed me.

Although it was originally proposed that participants would be recruited from various cities in the UK highly populated by Africans, including London, during the design phase of this research, and while ethical approval was being sought, my personal circumstances changed as I became pregnant. I considered the challenge of having to travel frequently to different locations to carry out interviews and decided that this would be too much for me once I had a baby to care for. I therefore decided to restrict my study population to African mothers living in the NE of England, an area that I felt I could more easily travel throughout. As a result, I began making necessary contacts to recruit as many African mothers into my study by contacting health professionals and community organisations prior to getting the study ethics approved. First, I contacted the health visiting team to inquire about how frequently they had encounters with African mothers, and I was assured that they had very frequent encounters with African mothers and recruiting this population would not be an issue. This gave me additional confidence that my decision to recruit mothers from NE England only, would still enable me to recruit the study population and to gain a diverse range of experiences.

**Health professionals:** To be included in the research, health professionals had to:

1. Be a post-partum health professional; and
2. Regularly support African mothers or have had experience supporting at least two African mothers within the previous two years. A minimum of two mothers was chosen to ensure that health professionals were not reporting perceptions resulting from an isolated case but had received sufficient experience with African mothers to describe their experiences. A period of two years earlier was selected to ensure that the experiences of the health professionals were as recent as that of the mothers.

#### Recruitment of participants

Participants were recruited into this study using a non-purposive sampling approach - convenience (availability) sampling [165]. Both mothers and health professionals were approached and recruited based on their availability. Although attempts were made to target specific elements of the population such as religion and area of residence, it was not possible to capture all intended elements within the sample. Owing to the qualitative nature of this research, the focus was on achieving saturation rather than getting a representative sample, and therefore, the findings have been interpreted in the light of the sample included and not in relation to the specific elements sought. Details of the recruitments processes are outlined below.

**African mothers:** Three approaches were used to identify and recruit participant mothers for this study. In the first instance, the health visiting team at Newcastle was contacted and the study was discussed in order to gain the support of health visitors with recruiting African mothers to the study. Meetings were held with coordinators of the health visiting teams from the different regions of Newcastle as an attempt to achieve a diverse sample of African mothers with different demographics. The first contact with health visitors was prior to receiving ethical approval for this study. I informed them that I was in the process of seeking ethical approval for the study and would not be able to contact any mothers or formally recruit mothers until ethical approval to undertake the study was in place. However, I suggested that potential mothers could be identified by the health visitors (but not contacted) prior to ethical approval being granted so as to speed up the process once ethics approval was received. I maintained regular communication with the health visiting team providing regular updates on the ethical approval process.

Once I received full ethics approval to conduct my study in April 2017, I contacted the health visiting team to provide them with evidence of ethics approval to undertake the study and to find out if any eligible mothers had been identified. No eligible mothers had been identified, so I visited the team again to remind them of the inclusion criteria. After explaining the study and inclusion criteria to the health visitors, the procedure for recruiting participants was explained and they were provided with copies of the Participant Information Leaflet (PIL) (See Appendix 2a), which provided more detailed information about the study as well as my contact details. The procedure for recruiting participants was that the health visitors discussed the study with potential participants during their postpartum home visits either at 8-12 weeks, three months, eight months or 12 months. Mothers who indicated interest in the study were provided with the PIL and verbally asked for their consent to pass their mobile number to me. Once consent was given, the health visitors sent the mobile number by email or phone conversation to me and I immediately called the mothers to assess their eligibility, discuss the study further and confirm that they had received a copy of the PIL. If the mother was still interested in participating, a suitable time and location was arranged for the interview to take place. Interested mothers who had not received a copy of the PIL were either sent a copy by post or given a copy prior to commencing the interview with sufficient time (as long as was required) to read and understand it before starting the interview.

The second approach to recruiting participants was via community organisations including ethnic minority community groups and churches. At the time of my first contact with the health visiting team, I contacted community organisations such as the Angelou Centre[[6]](#footnote-7) and Sure Start centres, particularly those in the West End area of Newcastle, as this area had been identified by the health visitors as being highly populated with individuals from African communities. A key person at each organisation was identified and provided with the details of the study, as well as posters about the study to be displayed (see Appendix 3). The key person assisted with identifying potential participants that met the eligibility criteria of the study either by one-to-one conversations or by displaying posters which had brief information on the study and my contact number. Interested participants identified via posters were required to make contact with me in the first instance. As with the health visitors, I informed the community groups that obtaining ethical approval for the study was in process but eligible mothers could be identified in advance but not contacted.

I followed-up the community groups after approximately two months to find out if any African mothers that met the inclusion criteria had been identified. As no eligible mothers had been identified, I adopted a different approach and requested an opportunity to attend one of the programmes offered at the centres. I attended sessions at a Sure Start centre and the Angelou Centre and I discovered that many of the mothers in attendance did not meet all inclusion criteria for my study. African mothers were either not in attendance at all or had children that were not within the eligible age. I sought alternative approaches to identify and recruit mothers into my study. I had a few suggestions from my supervisors, one of which was to consider recruiting from churches as there are a number of churches in Newcastle which African families attend. I, therefore, approached the pastor of the first church, Hillsong, to discuss my study and the possibility of recruiting participants from the setting. After explaining my study, I was informed that there were a few mothers that met my inclusion criteria who were likely to be willing to participate in my study. I provided my contact details to the key person I had identified and spoken with, for contact to be made with me once potential participants had been identified and informed about the study. By the time I received approval to undertake this study, one potentially eligible mother had been identified and I was provided with a contact number for her. Thereafter, I visited other churches around the West End area of Newcastle (Mountain of Fire and Miracles, and Redeemed Living bread church) from where mothers were additionally recruited into the study.

Further attempts were made to identify and contact non-religious community groups that were populated with Africans as previous attempts via the Angelou Centre and Sure Start centres had produced poor outcomes. I searched online for African community groups in Tyne and Wear. I contacted as many groups as I could find by email and phone (where provided). I received responses from three groups, one of which had no eligible mothers. One of the groups had ceased operating and referred me to the third group, which I had already identified (NE of England African Community Association (NEEACA). I was invited to the NEEACA events where I had the opportunity to present a brief summary of my study and requested that interested mothers approached me at the end of the event. I discussed the study in further detail with the mothers who indicated an interest and provided them with the PIL. Verbal consent to be contacted at a later date was obtained, giving sufficient time for the mothers to read and understand the study information provided in the leaflet. These mothers were then called at a later date to arrange a suitable time and location for the interview.

The third approach to recruiting participants into the study was a snowball sampling approach. At the end of each interview, participants were asked whether they knew of any other African mothers who may be interested in participating in the study. Potential participants identified this way were called by phone initially by me to explain the study and how they had been identified and asked whether they were interested in participating in the study. Interested mothers were then sent a PIL after which a suitable time and location for the interview was arranged.

In all instances, I had an initial conversation with the mothers to assess their eligibility to participate in the study and thereafter arrange a suitable time to be interviewed where appropriate. In order to assess eligibility, mothers needed to have responded “yes” to all of the following questions:

1. Would you consider yourself to be African?
2. Are you aged between 18 and 49 years?
3. Have you lived in the UK for at least six months?
4. Do you have a child aged between six months and two years?

All the mothers who had been identified as potentially eligible and had indicated interest in the study answered ‘yes’ to the eligibility questions and none of the interested mothers were deemed ineligible to participate. Mothers were only interviewed after confirming that they had fully understood what the study entailed and had provided written consent to be interviewed.

**Health professionals:** During the initial contact visit with health visitors to brief them about recruiting African mothers into the study, the health visitors were informed about the next stage of the research which was to undertake interviews with health professionals. While interviews with mothers were ongoing and prior to commencing the health professionals’ phase of the research, the health visiting team was contacted again, and a meeting was held to remind them of the purpose of conducting interviews with health professionals. The health visitors then highlighted clusters of health visiting work that contained the most African mothers and provided contact details for the coordinators in such clusters. I liaised with these coordinators to identify staff that met the inclusion criteria. Three approaches were therefore taken to identify and recruit the health professionals into the study.

First, specific health visitors that had been identified by cluster coordinators (except the West End cluster in the first instance) as meeting the inclusion criteria were contacted individually to verify their eligibility and arrange a suitable time and place to be interviewed. In order to assess the eligibility of health professionals to participate in the study, the following questions were asked:

1. Do you provide support to mothers after delivery of their infant?
2. Have you provided this support to at least two African mothers in the past two years?

The health professionals needed to answer “yes” to both these questions to be eligible for the study. Eligibility was assessed via telephone conversation prior to arranging a date and time to be interviewed. The PIL for health professionals (Appendix 2b) was then provided via email. Prior to commencing the interviews, health professionals were asked if they had read and understood the information in the PIL. If they had not read it, they were provided with a copy and given sufficient time to read and understand it. Interviews only commenced when health professionals confirmed that they fully understood the contents of the PIL and had provided written consent to be interviewed.

Secondly, drop-in sessions were set up at central locations around the West End of Newcastle, as this area had been identified to have the highest number of resident African mothers. This was based on the description provided by the health visitors who work across Newcastle in clusters such as West End (covering West Road, Fenham, Benwell, Arthurs Hill, and Cruddas Park), Heaton and High Heaton area (covering Walker, Byker and Wallsend), and the Jesmond/Gosforth area. The drop-in approach was suggested by the cluster coordinator of the West End area as the preferred approach to get most health professionals in the area to attend, as it would interfere less with their schedule and provide them the flexibility to attend when they were less busy. After making enquiries, the drop-ins were set up on days and times that the health professionals were more likely to be in the office and not out on visitations. The drop-ins were advertised at least two weeks prior to the scheduled dates via email. Health professionals who attended the drop-in were then assessed for eligibility to take part in the study and if eligible, were provided with the PIL for health professionals. In this instance, eligibility was assessed when health professionals attended the drop-in session, prior to being interviewed. Health professionals that did not meet the inclusion criteria, either because they did not have experience with African mothers or did not offer post-partum support, were informed of their ineligibility and thanked for their interest in participating. Eligible health professionals were provided with the PIL for health professionals and provided with sufficient time to read and understand the details of the study. Interviews only commenced when the health professional was deemed eligible, had fully understood what the interview was about and had provided written consent to continue with the interview.

The initial two drop-in sessions arranged had very low response rates with only one health professional attending each time. I reported this back to the cluster coordinator who then provided me with the contact details of specific health professionals within the cluster that met the inclusion criteria for the study. These health professionals were then contacted individually, assessed for eligibility and a suitable time was arranged for interviewing – following the first approach of recruitment. Three additional health professionals were recruited in this manner. Two further drop-in sessions were held and were better attended than the previous ones.

Thirdly, health professionals were identified using the snowball approach. Health professionals who had been interviewed were asked if there was any other member of their team who met the inclusion criteria for the study. Any health professional who was identified was either introduced to me by the referrer immediately after the interview or was contacted via phone by me upon receipt of the contact details from the referrer. Potential interviewees were only contacted once I received confirmation that consent had been given for them to be contacted. Once the first contact was made, and an assessment for eligibility was completed, a brief summary of the study was provided and a suitable date and time for the interview was arranged.

### Sample size

The emphasis of qualitative research is upon the depth of data rather than breadth. Therefore, no sample size calculations were undertaken, and the sample size was not pre-determined prior to the start of the interviews for both mothers and health professionals. The eventual sample that was interviewed was achieved once data saturation was reached from the interviews. Data saturation is the point *“when there is enough information to replicate the study, when the ability to obtain additional new information has been attained, and when further coding is no longer feasible”* [166]. An earlier description by Grady [167] identified it as the point during interviews when the same comments are heard repeatedly and new data is redundant of previously collected data.

### Data collection

One-to-one, face-to-face, semi-structured interview was the method of data collection used during this study. Interviews were conducted with participating mothers anytime from six months postpartum; mothers were not approached before their baby was six months of age in order to give them sufficient time to get acquainted with their newborn and new routines before the commencement of the study. Also, this time was necessary for mothers to have had time to breastfeed and reflect on it before being interviewed. Mothers who were recruited by health professionals or contacted me prior to their infant’s six-month birthday, were informed that they will be interviewed after their infant was six months old, provided this was within the study period and they remained interested in participating in the study. The interviews collected demographic information such as level of acculturation (place of birth, age at immigration and length of UK residence), beliefs regarding breastfeeding and weaning of infants, breastfeeding and weaning practices adopted and factors that may have influenced infant feeding practices.

Similarly, face-to-face semi-structured interviews were conducted with health professionals. Health professionals’ interviews did not collect demographic information but collected information on the length of time spent in the role, the knowledge of infant feeding practices among African mothers, and the experiences of supporting African mothers with infant feeding. The topic guides and consent forms for mothers and health professionals are presented in Appendices 4 and 5.

Interviews were held at times and locations convenient for all participants. The majority of the mothers were interviewed at home while others were interviewed at a public location such as the library or café. The health visitors were mostly interviewed in their workplaces except for a few who were interviewed at a café during their lunch breaks. For interviews held in public spaces, an attempt was made to find a quiet and confidential place to carry out the interview in order to reduce background noise and ensure confidentiality. Interviews with mothers lasted approximately one hour while interviews with health professionals lasted approximately 30 minutes. All interviews were recorded on audio tape with consent and transcribed thereafter. All participants were only interviewed once during the study period.

Prior to commencing both sets of interviews, I explained the study in further detail as required by the participant and answered any questions or concerns the participants had. Confirmation that the study processes were well understood, and that the PIL had been read and understood, was received. Participants were then required to give written consent to an audio-recorded interview. Participants were reminded that participation was voluntary and that they had the option to withdraw their consent at any time. No participants withdrew their consent.

### Data analysis

Data analysis in qualitative research is not *“simply one of the later stages of research often followed by another separate stage of “writing-up results”* but is an ongoing process that ought to begin at the start of any qualitative research project (Silverman, 2017). As a result, the process of analysing the data from this research began as soon as the first interview was completed, therefore the processes of recruiting participants, interviewing, transcribing and analysing data occurred simultaneously throughout the study. The flow of the processes involved in the analysis of data is shown in Figure 3.1.

The approach to data analysis used was an inductive thematic analysis. Thematic analysis is an approach used to identify, analyse and report patterns (themes) within data by organising and describing the data in detail, whilst interpreting various aspects of the research topic [168]. It involves an identification of patterns observed across all interview transcripts, without a linkage to any pre-existing theoretical framework [168]. An inductive analysis describes a process of coding data where the codes are not based on a pre-existing coding frame or the researcher’s analytical preconceptions, but are strongly embedded in the data and do not necessarily relate to the specific questions asked of participants [168]. Therefore, the process of data analysis adopted in this study involved reading and re-reading the data to observe patterns in relation to the research objectives.

Figure 3.2: Flow diagram showing process of data analysis

Recruitment

Interviewing

Transcription

Familiarisation

Coding

Theme generation

Interpretation

#### Familiarisation with data

Familiarisation with the data was achieved in two stages. The first stage was the process of transcribing the audio recorded interviews, which involved repeated listening in order to produce a verbatim transcript of the recording. During transcription of the audio recordings, I removed any potentially identifiable data and assigned unique identification codes to each participant. Whilst transcribing the recordings, the process of becoming familiar with the data started. I not only became familiar with the content of the interviews, but I also was aware of the intonations and pauses during the interview process and what this could imply during analysis. Although I was not undertaking a conversational analysis, these proved useful as I reflected on the interviews and how the body language and inflections could impact on meaning.

The second stage of familiarisation was the process of reading and re-reading the transcripts. Every interview transcript was read at least twice, and interview tapes were listened to repeatedly to gain familiarity with the contents. During this second stage of familiarisation, I often noted ideas that stood out or thoughts that were repeated across a few transcripts. This gave me insights into the ideas that were being generated from the interviews and emerging ideas that had not been captured previously by my topic guide were incorporated into it to be explored in future interviews.

#### Coding of transcripts

By the time I started coding the data, I was aware of most of the general ideas and potential codes that were emerging from the interviews. I applied one or more codes to each line, sentence or larger section of text that represented the same concept. This process was supported using the NVIVO qualitative data analysis package as a management tool (QSR International Pty Ltd., 2018). As I coded transcripts, the number of codes generated continued to increase and it started becoming difficult to manage. I therefore decided to begin to group codes into minor themes or ideas and coded further transcripts with these minor themes. This helped to reduce the generation of too many new codes and most ideas were able to be coded under one of the minor themes. New ideas that did not quite reflect the concept of the minor themes were coded separately as ‘other’. After all the transcripts had been coded, I perused through the lines that had been coded as ‘other’ to assess whether they might fit in an existing category or if they required a separate code. This resulted in no text being coded as other.

#### Identification of emergent themes

Once the process of assigning codes to texts was completed, I gathered all the minor themes into broader concepts. This initially seemed difficult to achieve but discussing the emerging ideas with my supervisors and colleagues made the inter-relationships between ideas and minor themes clearer and more vivid and I could see where the minor themes came together to form major themes. Themes are backed up by verbatim quotes from the interviews. No personal identifiable information is used. Mothers are represented by ‘Mother’ and a number e.g. Mother 1 and health professionals are represented by HP and a number e.g. HP 1.

Once the themes from the mothers’ and health professionals’ interviews had been identified, the themes were integrated by comparing the views and experiences of mothers with the perceptions of health professionals. This process helped to contextualise the findings from the mothers’ interviews with the perspectives of health professionals, giving a deeper meaning to the findings. Quotes from mothers’ and health professionals’ interviews relating to the same idea were compared assessing whether both sets of participants were in agreement or not. A table (Table 7.1) was used to present these comparisons, making it easier to see areas of agreement, disagreement and sometimes silence from either the mothers or the health professionals as presented in Chapter seven.

#### Approach to interpretation of findings

Following the detailed description of the emergent themes from this research, a theoretical framework was applied to the interpretation of the findings. Health and illness has been shown to be greatly influenced by wider societal factors such as socio-economic status, ethnicity and culture, not only biology, nature or individual choices. [169, 170] Similarly, human behaviour is an important determinant of health as it is associated with a range of health outcomes. [170-172] In order to gain a thorough understanding of health and illness, a sociological perspective was required to clearly describe the external factors influencing health. As a result of this, different models and theories have been developed at individual, group and community levels to understand health behaviour [173]. In nutrition related research, Pierre Bourdieu’s theoretical framework has been found to be useful by many researchers to provide better understanding of how social context impacts on health behaviour [174-176]. Amir [177] therefore suggested the application of this theory in understanding infant feeding behaviours, stating that

*health-related behaviours do not occur in isolation: by recognising the importance of social circumstances we can improve our understanding of infant feeding, thereby improving our ability to increase breastfeeding in our communities.*” [177]

Not only has Bourdieu’s theory been recommended for infant feeding research but according to Giddens and Sutton [170], it is the ‘*most systematic general theory of cultural reproduction to date’*. As this thesis focused on infant feeding practices in relation to culture and ethnicity, Bourdieu’s theory was considered the most appropriate to enable an exploration and understanding of the findings of this research in a social context.

Bourdieu’s theoretical framework has four main concepts (Figure 3.2) – habitus, field, capital, and practice – which are explained in the following sections.

Bourdieu argues that *“social life cannot be understood as simply the aggregate of individual behaviour”* nor can practice *“be understood solely in terms of individual decision-making, on the one hand, or as determined by supra-individual ‘structures’”* [178]. Therefore, the notion of habitus was constructed to bridge the gap between these two extremes. Habitus explains how behaviour is linked with social structure such as gender, ethnicity and class [179]. It describes a set of learnt qualities that become inherent to an individual such as ways of speaking, acting or thinking, which reflect the social conditions they exist in. [170] Generally, the habitus unconsciously learned from childhood is understood as primary to any individual and is usually the most long-lived compared to any other aspects of habitus introduced later on in life, as childhood habitus tends to become taken for granted, hence difficult to modify [180]. Habitus influences people’s actions (practice) although it does not determine it, but it is capable of generating practices that correspond to the social conditions that produced it, however, with modifications. [179]

Field is the structured space in which dispositions are expressed and the competition for the different forms of capital are manifested. [179] Fields may exist as intellectual, religious or educational structures such as the field of law, field of religion, and power relationships are experienced differently depending on the field at play at the point in time, as different fields operate by different rules. [170, 179]

‘Capital’ is another very important concept in Bourdieu’s theory and is a means that people may use to gain advantage. [170] Bourdieu explained that capital may exist in three fundamental forms – economic, cultural and social capital, as well as symbolic capital which all share their root in economic capital and are therefore convertible to the other forms of capital. [181] Each form is explained below.

Economic capital is the form of capital that is widely recognised globally and relates to power in terms of wealth. [179] Economic capital is usually directly convertible to money within a short space of time but could also be institutionalised in the form of property rights. [181]

Cultural capital is described as capital achieved from the family environment and through education, which leads to an increase in knowledge and skills or the acquisition of a qualification. [170] It can be converted into economic capital in certain conditions but can also be institutionalised in the form of educational qualification. [181] Cultural capital exists in three forms: in an embodied state which describes the existence in the form of long-lasting dispositions of the mind and body; in an objectified state as cultural goods such as instruments, pictures, books and machines; and in an institutionalised state which is a form of objectification but different in the sense that it produces things such as educational qualification [181].

Although cultural capital, more than other forms of capital, highlights Bourdieu’s emphasis on the cultural manifestation of social class, this is not the focus of this study. The relevance of cultural capital to this PhD is the cultural aspects of ethnicity when moving to a different cultural ‘field’.

Social capital is formed from a network of relationships and relates to being a member or being involved with such social networks that are well-connected and influential. [170, 179] It is made up of “connections’, which may be converted into economic capital or institutionalised in the form of a noble title (symbolic capital). [181]

Symbolic capital represents the prestige, status or other forms of social honour enabling people with high status to have power and influence over those with low status. [170] Other forms of capital assume this form of capital when the arbitrariness of their nature is misrecognised. [179]

Practice is used to conceptualise the action that results from the connection between habitus, capital, and field, and should not be reduced to any single one of these. [179] Bourdieu stressed the fact that practice is located in time and space [178]. Also, practice is not consciously, or at least not wholly consciously organised, but is *“organised in a manner largely devoid of conscious deliberation or reflexive control”*, albeit not without *“purpose or practical intent”.* [182]

By applying this theory to the findings of this study, it will be possible to understand how the learned experiences growing up in Africa (habitus) was challenged and modified within a different ‘field’ of experience. This is presented in Chapter 6.

Figure 3.3: Bourdieu's Theoretical Framework

**Habitus**

**Capital**

**Field**

**Economic**

**Cultural**

**Social**

**Symbolic**

## Reflections on the Methods of this Research

This reflexive account is divided into two sections, each covering a different stage involved in completing this research. Additional information on the reflexive account of the researcher is provided in chapter eight, section 8.6.

### Reflections on the recruitment process

Reflecting on the recruitment process and the sample recruited for this research, I realise that the sample could have been more varied in order to capture other demographics not represented in the participants of this research. I had originally intended to recruit African mothers of very varied demographics including 1st and 2nd generation migrant mothers, and African mothers from the different regions of Africa. Although this was achieved to some extent in that the sample of mothers interviewed in the study consisted mostly of African mothers from East and West Africa, the originally intended variability was not achieved. However, I realise that there may have been more that could have been done to recruit a more diverse sample of women. Perhaps adopting a more flexible approach to data collection, such as including telephone interviewing may have helped to increase the variability of the sample recruited. For example, it was not possible to recruit Muslim participants into the study. The majority of the participants were recruited from churches and snowballing simply directed the recruitment to other church members.

One of the reasons for this may have been the lower population of Africans in NE England compared to London and the West Midlands, which made recruitment challenging from the onset. Only three referrals were received via the health visitors despite the numerous reminders, which may equally have been a result of the limited African population under their care during the period of the study who met the inclusion criteria. However, it is also possible that the health professionals were not very clear about the inclusion criteria and did not consider African mothers born in the UK and non-black Africans as being eligible for the study. Throughout the study period, I did not consider this as a possible reason why Africans born in the UK may not have been referred to me by health professionals, especially because the number of women recruited via health professionals’ referrals were very few. The only possibility I considered was that the health professionals had a limited number of mothers that met the inclusion criteria for this study on their caseload during the study period. Upon reflection, more could have been done to prompt health professionals to identify African mothers who were born in the UK by reiterating to them the inclusion criteria of the study. In the same way, mothers who had only one African parent and did not necessarily look African by physical characteristics, may have been considered ineligible for the study by the health professionals. Reiterating to the health professionals that mothers did not have to be born in Africa and were only required to have at least one African parent may have helped to achieve a more varied sample of African mothers. However, one mother of dual heritage was included in the study and did not express any differing opinions from other mothers who had both parents as Africans. It is unclear whether African mothers who were born in the UK may have had different beliefs about breastfeeding but based on the participants of this study, and the data saturation that was achieved during the interviews, there was no need to recruit any more participants into this study.

There were no referrals received from any of the community centres where posters were put up. However, in one community group where I was given a chance to give a short presentation about what my study entailed, one referral was received and via snowballing, two other referrals were obtained from this source. Participants were more readily identified and recruited in churches via word of mouth or referral. Tables 5.1 and 6.1 show the number of participants recruited from the different sources.

Similarly, it was challenging to identify post-partum health professionals who met the inclusion criteria. Many health professionals may have supported African mothers from time to time but did not support African mothers regularly. In some occasions, some health professionals who were identified to support African mothers did not support them with infant feeding. Therefore, a major part of selecting participants into the study relied heavily on snowball sampling, which means that the sample may present with selection bias [183]. However, being a piece of qualitative research, this study makes no claim to representativeness to a wider population but acknowledges that knowledge produced is situated within the parameters of the research [184]. Additionally, relying on snowballing may mean that only individuals with interrelationships have been represented in the study and the findings are likely to over-emphasise a social network [183] and miss out ‘isolates’ that are unconnected within the selected social network [185].

### Reflections on the data collection process

As a new mother of African heritage at the time of carrying out these interviews, I could relate better with the mothers as I had shared many similar experiences. I was able to understand their thoughts and feelings and I noticed that they felt more comfortable and willing to give out more information once they became aware that I was in the same position as they were. Therefore, the interviews were more conversational than question and answer sessions. In some instances, participants attempted to elicit my opinions about the responses they provided and sought to find out if their experiences were similar to mine. I voluntarily offered some information about my personal experiences, being aware that interviewing is a reciprocal exchange. Oakley [186] argued that

*in most cases, the goal of finding out about people through interviewing is best achieved when the relationship of interviewer and interviewee is not hierarchical and when the interviewer is prepared to invest his or her own personal identity in the relationship.*

Therefore, in the absence of such intimacy, there is no reciprocity [186]. I was, however, careful not to divulge too much information that could change the course of the data collected.

Similarly, with health professionals, being able to share my experiences as an African mother in the UK aided the interview process. Although health professionals volunteered information more willingly and confidently than the mothers did, the conversation was improved once they realised that I had my own experiences to share. They became more practical in their responses, referring to particular events that they expected I would have experienced during antenatal or postnatal care.

Additionally, the willingness of health professionals to offer information more voluntarily made their interviews a lot shorter than the mothers’ interviews were. I found that many of the mothers required probing to provide detailed responses, and only began to feel more confident in sharing their experiences when they realised that I was also a breastfeeding mother. On the contrary, very minimal probing was needed during health professionals’ interviews. However, the limited number of African mothers that the health professionals had supported may also have contributed to the shorter duration of their interviews.

The next chapter presents a detailed description of the systematic review process and findings. Thereafter in subsequent chapters, the findings from the interviews carried out mothers and health professionals as described in this chapter are presented.

# Chapter 4: The Beliefs, Knowledge, Attitudes And Experience Of Breastfeeding Among African Mothers Residing In High-Income Countries – A Systematic Review

## Chapter Introduction

This chapter presents a systematic review of the evidence from the existing international literature on the factors that influence breastfeeding behaviours and practices of African immigrant mothers living in HICs. For the purpose of this systematic review, African immigrant mothers include all mothers who have their origin in any African country according to the United Nations classification of African countries (Table 4.1) [187]. A background to the review is presented providing information on the subject and establishing the rationale for undertaking this review. An overview of the aim and objectives of the review, the methods of the review, search strategy, inclusion and exclusion criteria, the approach to data collection, quality assessment, and analysis of findings will be presented. The studies assessed to have met the eligibility criteria will be described and their methodological quality summarised. A critical analysis and synthesis of the findings from the included studies is presented, followed by a statement of the implication of the findings.

Table 4.1: List of African countries according to United Nations classification [187].

|  |  |  |
| --- | --- | --- |
| Algeria  Angola  Benin  Botswana  Burkina Faso  Burundi  Cape Verde  Cameroon  Central African Republic  Chad  Comoros  Congo  Côte d'Ivoire  Djibouti  Egypt  Eritrea  Ethiopia  Equatorial Guinea | Gabon  Gambia  Ghana  Guinea  Guinea-Bissau  Kenya  Lesotho  Liberia  Libya  Madagascar  Malawi  Mali  Mauritania  Mauritius  Mozambique  Morocco  Namibia  Niger | Nigeria  Rwanda  Sao Tome & Principe  Senegal  Seychelles  Sierra Leone  Somalia  South Africa  South Sudan  Sudan  Swaziland  Tanzania  The Democratic Republic of Congo  Togo  Tunisia  Uganda  Zambia  Zimbabwe |

## Rationale for a Systematic Review

The systematic review aims to identify, appraise and evaluate the findings from relevant individual studies to provide more accurate and reliable results that aid better decision making processes. [22] A systematic review was carried out as part of this PhD in order to assess and explore key themes and variables that have been identified in relation to breastfeeding patterns and experiences among African immigrant mothers. This review therefore serves to provide reliable evidence from different developed countries on the beliefs and attitudes of African mothers who have migrated to these regions. Results obtained from the review gave structure to further components of this study such as aiding the development of the topic guide for the qualitative research (Chapters 5 and 6).

Breastfeeding has been described as a complex health behaviour [188] which can be influenced by many factors such as culture and migration [94]. According to Groleau et al 2006 [189], migration results in a loss of social structures that strengthen health behaviours and practices, and therefore has an influence on breastfeeding practices. Similarly, studies have shown that acculturation to new environments negatively impact on breastfeeding initiation and duration rates [190-194]. A study by Giles and colleagues [195] identified being a recent migrant as one of the characteristics of the groups most vulnerable to poor breastfeeding outcomes. A review of literature on the cultural beliefs around breastfeeding revealed that breastfeeding is not dependent on biological factors but on *“the habits, standards and behaviours”* existing in each society which ought to be considered when developing policies to improve breastfeeding outcomes [61].

These cultural beliefs vary between countries and regions of the world. For example, a global survey involving 120 cultures showed that 50 of these cultures believe that colostrum is unhealthy for infants, therefore resulting in delayed initiation of breastfeeding, sometimes up to day four [196], and this has remained the practice in many cultures to this day [68]. Whereas, some other cultures practice abstinence from sexual contact during breastfeeding [94, 197], or a ritual cleansing after a quarrel before continuing breastfeeding to prevent a transference of ‘bad blood’ to the infant [197, 198]. Owing to these differences in breastfeeding beliefs and cultural practices, coupled with the impact of migration, it is unclear how the beliefs and attitudes of African immigrant mothers may have been influenced after migration to a HIC.

With existing evidence to show that immigrant mothers may or may not be influenced by the prevailing beliefs and cultural practices of their host countries [94, 104], this systematic review aims to understand the beliefs, attitudes, knowledge and practices of African immigrant mothers who reside in developed countries and how this may differ from the beliefs and practices in their home countries. An understanding of the factors which influence breastfeeding decisions and practices is required to offer up-to-date, adequate and relevant guidance to mothers regarding breastfeeding.

This systematic review therefore aims to understand the beliefs, attitudes, knowledge and practices of African immigrant mothers who reside in developed countries and how this may differ from the beliefs and practices in their home countries.

## Focused Review Question

What are the breastfeeding beliefs, attitudes, practices and experience of African immigrant mothers living in high-income countries?

### Review objectives

The primary objectives of this systematic review are:

1. To identify relevant literature on the breastfeeding knowledge, beliefs, attitudes and practices of African immigrant mothers living in developed countries.
2. To assess and understand the knowledge, beliefs and attitudes towards breastfeeding among African immigrant mothers residing in developed countries.
3. To explore the prevalent breastfeeding practices and experiences among African immigrant mothers in developed countries.
4. To identify the barriers, facilitators and motivators to breastfeeding of African immigrant mothers in developed countries.

The secondary objective(s) are:

1. To determine whether these beliefs, practices, barriers and facilitators differ between host-countries and home-countries.
2. To determine whether breastfeeding beliefs and attitudes differ by single births or multiple births.

## Method

A systematic review was carried out and reported according to the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines [199]. A review protocol was developed detailing the processes and methods to be used in completing the review and was entered onto the National Institute for Health Research International Prospective Register of Systematic Reviews (NIHR PROSPERO) database (Registration [ID: CRD42016036225](http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42016036225)).

### Inclusion and exclusion criteria

#### Type of studies

In an attempt to identify the most relevant study types for this review, a scoping search was carried out in January 2016 on the MEDLINE and CINAHL databases using keywords (breastfeeding, breast milk, attitudes, beliefs, Africa/African, developed countries). The search identified both qualitative and quantitative studies of various study designs. Owing to the nature and aim of this review, it was decided that all studies should be included in the review irrespective of study design, provided the study has assessed the outcomes under review. Therefore, all peer-reviewed studies assessing factors affecting breastfeeding behaviours among African immigrant mothers living in developed countries were included. These factors include beliefs, attitudes, barriers, facilitators, knowledge and related concepts. Studies assessing breastfeeding and weaning practices and/or experience of African immigrants living in developed countries were also included.

Studies involving immigrant mothers in developed countries were included provided findings for African immigrant mothers were reported separately in the results.

Abstracts for which the full texts could not be recovered were excluded, as well as editorial papers, position papers and letters to editors. In the case of published abstracts, the authors were contacted to recover full texts provided they were available. Published abstracts for which full texts were unavailable, did not meet the inclusion criteria or the authors could not be contacted, were excluded.

#### Participants

African immigrant mothers, defined as mothers who have emigrated from their home countries to the host country either as individuals themselves or by reason of being born to a parent who had earlier migrated and/or settled, of childbearing age (16 - 45 years) was the population under review. Only mothers living in a developed country were considered eligible.

Studies solely focused on HIV-positive mothers were excluded from the review due to the uncertainties around infant feeding practices and options among HIV-positive mothers [200]. Studies that had HIV-positive participants were only included if findings were reported separately for HIV-negative participants. Only results for HIV-negative mothers were reported.

#### Outcome measures

The outcomes measures considered for inclusion of studies for this review are highlighted below.

* Factors associated with choice of infant feeding method. This may include:
  + Beliefs and attitudes towards breastfeeding
  + Facilitators and barriers to breastfeeding
  + Breastfeeding decision-making factors
  + Breastfeeding experience
* Breastfeeding practices

#### Language

Only studies written in the English Language were included in the review. Studies written in other languages that have existing translations were also included. Studies written in any language other than English, and do not have existing English language translations, are accounted for and represented in the PRISMA framework but excluded from the review. This was due to time and financial constraint in translating studies.

### Search strategy

Prior to starting this systematic review, a scoping search of relevant databases such as MEDLINE, the Cochrane Database of Systematic Reviews and NIHR PROSPERO was carried out to ensure that no existing published or ongoing systematic reviews were identified. A detailed search strategy (Appendix 6) was developed with assistance from an information specialist at Newcastle University, Faculty of Medical Sciences Library, to ensure that all relevant studies were identified. A comprehensive search of relevant databases such as MEDLINE, EmBASE, PsychINFO, Cumulative Index to Nursing and Allied Health Literature (CINAHL), SCOPUS and Web of Knowledge was carried out in March 2016 from inception to March 2016 using keywords and indexed terms (Table 4.2). An updated search was carried out in February 2019.

In addition, a search of relevant grey literature, records of ongoing research, conference proceedings and/or abstracts, thesis, dissertations, reports and discussion papers was carried out from GreyNet, ProQuest and the Health Management Information Consortium (HMIC). The Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects, and the Health Technology Assessment (HTA) databases were searched for relevant systematic reviews and reports. When published abstracts that were recovered without the availability of the full article, the key author or contact of the study was contacted to request the full article if available. Similarly, the authors of theses and dissertations were contacted to ask whether a peer-reviewed article had been published, which was then included in the review. If there was no published study from the dissertation or thesis, such dissertations/theses were excluded from the study. Attempts were made to contact authors at least twice before concluding that there was no response from the author. Three authors responded to attempted contact and provided necessary information for the review.

Follow-up citation searching of relevant articles and reviews identified was carried out using Google Scholar, in order to identify articles that may have been missed in the electronic database searching. Key journals and conference proceedings from Breastfeeding Conferences and conferences on the Baby Friendly Initiative were hand-searched from inception to February 2019. The reference list of all relevant studies identified were searched for additional relevant materials. These were done to ensure that no relevant literature that could add meaning to the findings of the review were missed during the search processes.

#### Search terms

Keywords used in the searches are detailed in Table 4.2. The keywords were adapted to individual databases as required. A sample search strategy is shown in Table 2, categorised according to the PICO (Population, Intervention, Comparator, Outcome) search tool. Although the SPIDER (Sample, Phenomenon of Interest, Design, Evaluation and Research Type) tool has been suggested for qualitative research due to its higher specificity in identifying relevant studies [201, 202], Methley and colleagues [202] found that PICO produced a more comprehensive search in databases than SPIDER, even in qualitative research.

Table 4.2: Keywords used in searches

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Population** | **Intervention (or Exposure)** | **Comparator** | **Outcome** | |
| Africa$  Black  Minority ethnic$  Ethnic$  Black minority  Ethnic minority  Minority group  Immigra$  Migrant  Ethnic identity  Race  Racial group | Europe  Western Europe  Eastern Europe  Northern Europe  UK/United Kingdom  Northern Ireland  America  North America  Central America  USA  Australia  New Zealand  Developed countr$/ nation$  Industriali$ed countr$/ nation$ | N/A | Breastfeed$  Breast feed$  Breast-feed$  Breast$feeding  Infant feed$  Infant nutrition  Breast milk  Breast milk expression  Human milk  Colostrum  Bottle feed$  Bottle-feed$  Bottlefeed$  Bottle$feeding  Lactat$  Wean$ | Belief  Attitude$  Practice$  Barrier$  Benefit$  Facilitat$  Knowledge  Behavio$r  Hindrance$  Challenge$  Experience$  Motivat$  Limitat$ |

### Study selection

Following the database searches, all records identified were imported into Endnote X8, a bibliographic software programme. Duplicate records were removed prior to screening of studies. Screening by titles and abstracts was then carried out, with three reviewers (Adefisayo Odeniyi (AO), Nicholas Embleton (NE) and Judith Rankin (JR)) independently screening a 10% sample of the studies. Discrepancies in this initial screening process were resolved through discussion, after which AO completed the title and abstract screening of the remaining studies. Thereafter, the full texts of the potentially relevant studies were screened against the inclusion and exclusion criteria to ensure relevance to the study. An initial 30% of the retrieved full texts were independently assessed by two reviewers: Lem Ngongalah (LN) screened 20%, Wanwuri Akor (WA) screened 10% and AO screened all 30%, and discrepancies in inclusion were resolved through discussion. The remaining 70% full text studies were then checked for inclusion by one reviewer AO. Where there was any uncertainty about the inclusion of a study, a second opinion was sought from another reviewer. Citation and reference searches were completed by a single reviewer (AO). Full text articles that could not be retrieved from the databases or online sources were sought for via other avenues including contacting authors, journal searching and requesting from libraries.

### Data extraction

Two data extraction tools were developed and piloted for this review, one for qualitative studies and the other for quantitative studies (See Appendix 7a and 7b). The tools were used to extrapolate general information on the included studies, such as author(s), year of publication, study setting and study design, as well as specific information relating to the study carried out, such as population characteristics, methods, and study findings. The qualitative data extraction tool was tailored to qualitative research and collected findings in themes and texts, while the quantitative data extraction tool was tailored to collect statistical data on breastfeeding rates. The quantitative tool also designed to collect qualitative data such as reasons for breastfeeding decisions and types of complementary foods reported.

All data extraction was done independently by two reviewers. One reviewer (AO) extracted data from all included studies and a second independent reviewer (JR, NE or LN) each extracted relevant data from a third of the included studies. Discrepancies observed from the independently extracted data of each study were resolved through discussion. There were some discrepancies in the data extractions from two studies and these were resolved.

### Risk of bias (quality) assessment

Quality assessment is essential to determine the weight of value each study presents to the review. According to Khan et al, [203] it serves *“to guide interpretation of findings, help determine the strength of inferences and guide recommendations for future research and clinical practice”*. The full text of each study was assessed for quality by two reviewers independently; one reviewer (AO) assessed the quality for all included studies and three other reviewers (JR, NE and LN) divided the included studies between themselves and each assessed a portion of the included studies for quality. All disagreements were resolved by discussion. The quality assessment tool used for individual studies was determined by the methodology of each study.

The Critical Appraisal Skills Programme (CASP) checklist was used to assess quality for qualitative studies included in the review and the National Institutes of Health (NIH) Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies was used to assess quality for quantitative studies (Appendix 7c and 7d). The quality of each study was rated as good, fair or poor. A study was rated ‘good’ if the risk of bias was considered minimal, ‘fair’ if there was some risk of bias but not sufficient to invalidate the results and ‘poor’ if there was substantial risk of bias.

### Data synthesis

The general information and study characteristics of the included studies were synthesised descriptively.

An integrated mixed-methods approach was used to synthesise the findings from individual studies. This approach combines both quantitative and qualitative data into a single synthesis by either converting qualitative data into numerical format and included in statistical analysis or converting quantitative data into themes that can be coded and presented with qualitative data. [204] An interpretive analysis was originally proposed to be used to synthesise qualitative findings relating to barriers, facilitators, beliefs, attitudes, practices and experiences. However, following the full search and data extraction of studies, it became clear that a critical interpretive synthesis was not relevant to this review as terminologies were more defined and clearer than envisaged after the initial scoping search. This review has therefore followed the pattern on a generic systematic review from focusing the review question to synthesising the results.

Elements of framework synthesis approach were also adopted such as identifying an *a priori* framework, providing a pre-existing structure on which data can be organised and analysed. [205] The *a priori* framework was informed from background literature, which included themes such as breastfeeding practices, knowledge, attitudes and beliefs around breastfeeding, impact of socio-demographic, economic and cultural factors on breastfeeding and the support system, with each of these themes having sub-themes. Additional themes and sub-themes that emerged from the data were included during the analysis process such as Perception of Health Professionals.

The process of synthesising the data involved a number of stages including familiarisation with the data, coding, identifying a thematic framework, charting the data into the framework matrix and interpretation. Familiarisation with the data involved reading and re-reading the findings from included studies and taking notes of recurring ideas. Line by line coding of texts using the ideas noted during familiarisation was carried out. A framework reflecting similar ideas to what had been coded was identified and codes identified were grouped according to the *a priori* framework. An ‘other’ sub-theme was included for each theme to accommodate ideas that did not fit into the framework. These ‘other’ sub-themes were then used to inform any additional sub-theme that was added to the framework. Thereafter, relevant data such as quotes or statements of authors from included studies were charted into the framework matrix while simultaneously integrating the data as described earlier. The themes were then used to explore patterns and give meaning to the data.

## Results

A total of 6005 studies were identified from database searching and an additional 2836 studies retrieved from reference and citation searching, hand-searching of relevant journals and grey literature. After removing duplicates, 7440 studies remained and were screened by titles and abstracts against the inclusion and exclusion criteria. 7070 studies were excluded at this stage and 370 full text studies were assessed against the inclusion and exclusion criteria for eligibility. Thirty-five studies were identified as meeting all inclusion criteria and have been included in this review (See Figure 4.1 for PRISMA flowchart diagram explaining the screening and selection process). Twenty-three of these studies were quantitative and twelve studies were qualitative.

The major reason for exclusion at this stage was the study population of the individual studies, most of which were described as either African-Americans without an indication of the immigration status of the population or as blacks which could include individuals from the Caribbean. Without a clear definition of the population group included in each study, it was impossible to include them in the review. Another major reason for exclusion at this stage was that results were not presented for Africans as a separate population, hence it was difficult to extrapolate the findings pertaining to the African immigrant population. Additionally, it was not possible to recover the full texts of some identified abstracts because the full texts were not available as they had not been published. Similarly, some authors could not be contacted either because there was no contact information provided for the authors or because there was no response after several contacts. Other reasons for exclusion included: studies not published in the English language, studies not carried out in a developed country, studies involving non-African immigrants, studies not yet available to the public and non-primary research studies (Figure 4.1).

Figure 4.1: PRISMA flow diagram

Additional records identified from other sources   
(n = 2836)

HMIC = 5

Proquest = 39

Reference searching = 1166

Citation searching =813

**Screening**

**Included**

**Eligibility**

**Identification**

Records after duplicates removed   
(n = 7438)

Records screened by titles and abstracts   
(n = 7438)

Records excluded   
(n = 7070)

Full-text articles assessed for eligibility   
(n = 368)

Full-text articles excluded, with reasons   
(n = 333)

Population not clearly defined = 237

No full texts available = 6

Non-African population = 16

Results do not separate Africans = 26

Not in English Language = 13

Not Primary research study = 24

Did not assess outcomes of this review = 1

Not in developed country = 1

Insufficient details on findings, coded data = 1

Unable to retrieve required information from authors =7

Study unavailable to the public = 1

Studies included in qualitative synthesis   
(n = 12)

Studies included in quantitative synthesis   
(n = 23)

Records identified through database searching   
(n = 6005)

### Description of included studies

Twelve of the included studies are qualitative [40-42, 94, 122, 123, 206-211] and 23 are quantitative studies. [113, 147, 212-232] Ten studies were conducted in the UK [40-42, 113, 147, 215, 218, 225, 226, 231], eight in the USA [122, 206, 208, 211, 220, 223, 227, 229], three in Australia [94, 123], two each in Norway [207, 216], the Netherlands [212, 217], Italy [210, 222], and Israel [224, 230], and one each in Sweden [232], Spain [219], Ireland [228], Canada [221], Denmark [213] and Finland. [209] A summary of the key characteristics of the included studies is presented in Table 4.3.

Table 4.3: Summary characteristics of included studies

| **Author and year** | **Study aim** | **Study location and year** | **Sample** | **Study design** | **Sampling strategy** | **Outcomes measured/explored** | **Quality assessment summary** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bulk – Bunschoten et al, 2008 | To investigate why breastfeeding and EBF are discontinued early in the Netherlands. | Netherlands  1998 | 4438 (of which 135 (3%) Moroccans) Average age = 27.9 years  Education, 61/127 educated to primary level or less, 60 above primary education, 6 had higher education. | Survey | Not stated | Reasons for discontinuing breastfeeding. | Fair, sampling strategy not clearly defined |
| Busck-Rasmussen et al, 2014 | To describe breastfeeding practices and to compare the risk of suboptimal breastfeeding of women living in Denmark according to country of origin. | Denmark  2002 – 2009 | 42,420 children-mother pair (292 Moroccans). | Cohort | Not stated | Full breastfeeding until 4 months of age, suboptimal breastfeeding. | Fair, sampling strategy not clearly defined. |
| Castaldo et al, 2017 | To analyse the socio-cultural construction and its representation emerging from barriers to breastfeeding, the effects of breastfeeding on the psychological and physical health of infants, and the social and domestic consequences which affect those women who did not stop breastfeeding when they felt they should have. | Italy  2013 -2014 | Mothers of 46 Asian and African immigrant children and adolescents (23 Africans); Average age of 46 included children = 10 (range 3-17). 52% mothers were first time job seekers, 19% unemployed, 10% have undeclared jobs. | In-depth semi-structured face-to-face interviews | Not stated | Barriers to breastfeeding, the effects of breastfeeding on the psychological and physical health of infants, the social and domestic consequences which affect those women who did not stop breastfeeding when they felt they should have. | Fair, no clear statement of aim. |
| De Hoog et al, 2011 | The present study focuses on ethnic differences in growth in weight, length and weight-for-length during the first six months of life and the explanatory role of infant feeding. | Amsterdam  2003-2004 | 3702 mother-child pairs (282 Moroccans: age mean = 29.5). | Cohort | Not stated | Change in standard deviation scores (∆SDS) for weight, length and weight-for-length. | Fair, sampling strategy not clearly defined. |
| Dennis et al 2014 | To examine and compare predictors of EBF at 16 weeks among migrants and Canadian-born women. | Canada  2006-2009 | 1875 immigrants and Canadian born women with a new birth (169 Africans). | Prospective Cohort | Not stated | Predictors of EBF at 16 weeks postpartum. | Fair, sampling strategy not clearly defined. |
| Fabiyi et al, 2016 | To explore nativity differences and the role of attitudes, social norms, and behavioural control perceptions surrounding breastfeeding initiation and duration among middle-class African-American (AA) and African-born (AB) mothers in the USA. | Ohio, USA  2012 – 2013 | 20 black mothers (10 African- born (AB), 10 African American (AA)). Age range 21 – 39 AB, 22-38 AA, Employed or in education; 7 AA, 5 AB. | Semi-structured interviews | Not stated | Mothers’ experiences and views about infant feeding (bottle-feeding and breastfeeding) while growing up, during pregnancy, and since the delivery of the infant; the role that family members, friends, and health providers played in those experiences; and, the barriers and challenges that participants encountered during infant feeding in the most recent pregnancy. | Good |
| Farchi et al, 2016 | To evaluate differences in breastfeeding initiation rates by maternal place of birth among women giving birth in one of 14 hospitals in Lazio, Italy between 2006 and 2011. | Lazio, Italy  2006 – 2011 | 6505 mothers with healthy newborns (111 Africans) | Cohort | Not stated | Breastfeeding during hospital stay. | Fair, no adjustments for confounding variables. |
| Fawzi et al 1997 | To examine the independent contribution of maternal anthropometric status during pregnancy and infant feeding practices to infant anthropometric status. | Israel  1982-1986 | 1040 pregnant women of African descent | Cohort | Not stated | Maternal anthropometry, infant feeding practices at 1, 2, 3 and 6 months and infant anthropometry. | Fair, outcome measures not clearly defined and no adjustment for confounding variables. |
| Gallegos et al, 2015 | To explore the experience of breastfeeding among refugee women from Liberia, Sierra Leone, Burundi and the Democratic Republic of Congo, living in two major capital cities in Australia. | Brisbane and Perth, Australia  2007-2008 | 30 women and 1 man; 3 women born in Sierra Leone, 8 women and 1 man born in Liberia, 4 women born in Burundi and 15 women born in Congo. All women had initiated breastfeeding with a child, child’s ages ranged from 2 months to 28 years (average 4 years). | Face-to-face interviews and focus groups | Purposive sampling and snowballing | Cultural beliefs, traditional practices, barriers and enablers and personal experiences in both the country of origin and Australia regarding breastfeeding. | Good |
| Goel et al, 1978 | To assess the health and nutritional state of Asian, African and Chinese children in Glasgow and compare them with those of Scottish children from the same district. | Glasgow, UK  1974 – 1976 | 506 children - 206 Asians, **99 Africans,** 99 Chinese, 102 Scottish.  **Children**  258 male, 242 female  Age range = 6 months – 16 years  388 born in UK, 112 born in own country  **Parents**  Mainly English speaking | Cross - sectional survey | Not stated | Type of feeding mode used (breastfeeding OR bottle-feeding)  Relation of country of birth to feeding mode  Duration of breastfeeding  Time of introduction of solids (in relation to country of birth)  Type of solids given  Vitamin supplements | Poor, no adjustments for confounding variables and sampling strategy not clearly defined. |
| Grewal et al, 2016 | To examine the prevalence of EBF, breastfeeding and complementary feeding practices during the first 6 months of life among Norwegian infants of Somali and Iraqi family origins.  To identify factors associated with EBF and breastfeeding practices in this group of children. | Eastern Norway (Oslo, Akershus and Buskerud)  2013 – 2014 | 187 participants (107 mother/infant pair of Somali origin)  Median age = 30 years (Rage = 27-33)  Age at immigration: Median = 21 years (Range = 14 y- 25 years)  Number of years lived in Norway: Median = 10 years (Range = 5y – 14 years)  Education: No/basic education =72%, high school and higher education = 28% | Cross- sectional survey. Retrospective | Through nurses in selected children health centre.  Snowballing | EBF, breastfeeding and other complementary feeding practices at 6 months of age and retrospectively from birth. | Good |
| Griffiths et al 2005 | To examine the association of ethnic and social factors at the individual and community level with breastfeeding practices. | UK  2000 - 2002 | 18,150 natural mothers of singleton infants. (358 black Africans in England only). | Cohort | Not stated | Breastfeeding initiation, measures of breastfeeding duration and prevalence as any breastfeeding to: at least 1 month (>4.35 weeks); 4 months (>17.4 weeks); and 6 months (>26.1 weeks) of age. | Fair, sampling strategy not clearly defined. |
| Griffiths et al 2007 | To examine country and ethnic variation in infant feeding practices, and the extent to which ethnic variations are mediated by differences in maternal educational and socio-economic status. | UK  2000 - 2002 | 18,150 natural mothers of singleton infants. (358 black Africans in England only). | Cohort | Not stated | Breastfeeding initiation, breastfeeding discontinuation, and introduction of solid foods before four months. | Fair, sampling strategy not clearly defined. |
| Hill et al, 2012 | To describe and better understand Somali immigrant women’s health care experiences and beliefs regarding pregnancy and birth in the USA. | North-eastern USA | 18 Somali women aged between 27 and 42 years, had spent an average of 6 years in the USA, were over 20 weeks pregnant or with infant less than 2 years and received prenatal care. All were Sunni Muslims. | Focus groups | Convenience sampling and snowballing | Health care experiences and beliefs regarding pregnancy and birth in the Unites States. | Good |
| Hufton et al 2016 | To explore an unmet need in understanding the issues surrounding infant feeding practices (IFPs) of refugee mothers through investigating the beliefs and behaviours of refugee women in North West England. | Liverpool and Manchester, UK  2012 | 30 refugee (24 Africans) from mothers residing in Liverpool or Manchester who had a child born in the UK in the last 4 years or were at least 6 months pregnant. Length of residence ranged between 7 months and 10 years, parity from 0 (pregnant) to 3.  5 Maternal HCPs. | Semi-structured interviews and Focus groups | Purposive sampling | UK feeding experiences compared with experiences elsewhere, knowledge and awareness of UK feeding recommendations, difficulties encountered with infant feeding methods and where help is sought. | Fair, no clear description of analysis process. |
| Ingram et al, 2008 | To explore the barriers to EBF to 6 months with minority or socially disadvantaged groups of women.  To ascertain what strategies would help to overcome these barriers, including peer support scheme. | Bristol, UK  2006-2007 | 22 women (17 black and minority ethnic women and 5 single young mothers); 5 Somali, 9 South Asian, 3 Afro-Caribbean, 5 single young mothers.  Mothers with babies within 10-24 months of age and had breastfed for at least a few weeks. | Focus groups | Purposive sampling | Barriers to EBF to six months. | Fair, no clear description of analysis process. |
| Jones et al 1977 | To investigate some of the social and cultural factors which influence mothers in their choice of feeding method, and the effect of antenatal and postnatal advice given in hospital. | Lambeth, London, UK  1975 | 280 mothers of 12-week old infants (14 Africans) | Cross-sectional survey | Stratified random sampling | Factors influencing mothers choice of infant feeding. | Good |
| Kelly et al, 2006 | To examine patterns of breastfeeding initiation and continuation among a racially/ethnically diverse sample of new mothers.  To assess the effects of demographic, economic, psychosocial and cultural factors on racial/ethnic differences in breastfeeding practices. | UK  2000-2001 | White, Indian, Pakistani, Bangladeshi, Black Caribbean, **Black African**, and others.  321 Black African mothers, age from 13 years onwards, majority between 20 and 39 years  Mothers education: 63.2% had academic qualifications from GCSE and above  65.4% were unemployed, 10.6% working part-time and 24% full-time  94.8% non-smokers, 3.3% stopped smoking in pregnancy and 1.9% still smoking | Survey involving face-to-face interviews | Not stated | Breastfeeding (exclusive, predominant or any) rates in first 6 months. | Fair, sampling strategy not clearly defined |
| Kolanen et al, 2016 | To examine Somali women’s perceptions towards breastfeeding using a salutogenic approach, discover what motivates them to breastfeed, what they know about breastfeeding, what their experiences are in Finland and in Somalia and identify their General Resistance Resource. | Finland  2012 | 7 Somali mothers with child under 2 years. Age range =23-32, no of children between 1-4, length of residence between 0 and 20 years. | Focus groups with semi-structured questions | Snowball sampling | Breastfeeding in the Somali culture. | Poor, no clear description of research design, recruitment strategy and data analysis process. |
| Meftuh et al, 1991 | To investigate the infant feeding patterns and breastfeeding duration among the Ethiopian communities in Southern California. | Los Angeles and San Diego, USA  1987 | 45 Ethiopian mothers  Muslim 53%; Christian 47%  Maternal education: 0-6 years 44%; >6 years 56%  Source of income: Welfare 52%; Work 48%; mean length of stay in the USA = 41 months; age range = 22-38 years (mean = 27 years); 71% urban, 29% rural | Retrospective  In-depth interview | Convenient sampling | Prenatal experiences and infant feeding patterns. | Good |
| Merewood et al, 2007 | To assess breastfeeding duration rates among infants born at a US baby-friendly hospital.  To determine factors associated with continued breastfeeding status at 6 months. | Boston, USA  2003 | 336 singleton infants born in Boston Medical Centre or Baby-Friendly hospital in Massachusetts (32 Africans and Cape Verdens). Mothers age from 15-43 years. Median = 28.1 years  42.9% unemployed, 51.4% employed, 5.8% missing data | Cross-sectional | Random sampling | Breastfeeding initiation, breastfeeding duration and factors associated with continued breastfeeding. | Good |
| Moore et al 2013 | To assess awareness of the weaning guidelines in UK BME groups and understand how this knowledge and other factors influence weaning behaviour. | London, UK  2010 – 2011 | 349 BME residents who had weaned a child since 2003 (107 black Africans). | Survey | Opportunistic sampling | Weaning behaviours – weaning age, factors associated with weaning decisions, weaning information sources, engagement with medical advice etc. | Fair, no adjustments for confounding variables. |
| Neault et al, 2007 | To examine the associations between breastfeeding and child health outcomes among citizen infants of mothers immigrant to the USA. | USA  1998 – 2004 | 8800 children aged 0-3 years (1078 Africans) | Cohort | Not stated | Infant health status, history of chronic illness, hospitalization history, and growth status. | Fair, sampling strategy not clearly defined |
| Nolan et al 2015 | To examine the evidence for a ‘healthy immigrant’ effect with respect to breastfeeding behaviour in Ireland. | Ireland  2007 -2009 | 9700 9-month old children (African = 1.5%); 7200 9-year old children (African = 1.3%) | Cohort  Two cohorts: (1) ‘Growing up in Ireland’ – infant cohort sampled from the Child benefits register  (2) The child cohort from school settings | Not stated | Breastfeeding initiation | Good |
| Parker et al 2017 | To examine prevalence of safe sleep and breastfeeding practices among Non-Hispanic Black (NHB) mothers according to birth country and to examine associations of adherence to American Academy of Pediatrics recommended safe sleep and breastfeeding practices among foreign-born NHB mothers, compared with US-born NHB mothers. | USA  2011 – 2014 | 3983 mothers enrolled and 3297 (83%) completed the survey. Of these, 828 (25%) identified as NHB. (African-born = 42) | Cohort | Stratified 2-stage, clustered design | Safe sleep and breastfeeding practices. | Good |
| Rio et al, 2011 | To compare rates of breastfeeding initiation in hospital between Spanish and Immigration groups living Spain. | Catalonia and Valencia, Spain  2005-2006 | 154,127 Spanish; 2105 Sub-Saharan Africans | Cross-sectional | Not stated | Breastfeeding initiation | Fair, sampling strategy not clearly defined. |
| Rubin et al 2010 | To examine the rate and duration of breastfeeding among recent Ethiopian immigrants to Israel between 1984 and 2006. | Hadera, Israel  2005 – 2006 | 93 Ethiopian born mothers | Cross- sectional study | Not stated | Association between the duration of breastfeeding and the independent variables (marital status, educational level, number of children, employment status, time from date of immigration, religious observance). | Fair, sampling strategy not clearly defined and no adjustments for confounding variables. |
| Steinman et al, 2010 | To explore Somali mothers’ beliefs and practices around infant feeding and education towards developing a culturally informed infant nutrition curriculum for health providers. | Seattle, USA  (year not stated) | 37 Somali mothers who immigrated to the USA between 1992 and 2005, age range 21-51 years, 31% employed, 77% less than high school education, 93% speak Somali as main language, 67% speak English well or very well. | Focus groups | Purposive sampling | Beliefs about infant feeding, hunger and ideal weight, feeding practices, nutrition education approaches and provider/mother interactions. | Good |
| Textor et al, 2013 | To examine breastfeeding initiation and exclusivity among mothers from Somali and Mexico.  To explore how cultural beliefs may influence early breastfeeding practices and lead to misunderstandings between mothers and their nurses and lactation consultants. | South-Eastern Minnesota, USA  2010-2011 | 9 immigrant mothers; 5 Somali, 4 Mexican. ≥18 years.  10 nurses. | Semi-structured interviews (mothers) and focus groups (nurses) | Not stated | Breastfeeding experiences, attitudes and practices related to breastfeeding, and perceptions of relationships with health care providers. | Poor, no clear description of research design, recruitment strategy and data analysis process. |
| Treuherz et al 1982 | To describe the feeding practices found in the socially and racially heterogeneous community of East London. | The City and East London districts, UK  1979-1980 | 3712 babies four weeks of age (191 Africans) | Prospective cohort | Not stated | Type of feeding (breastfeeding, bottle feeding or mixed). | Fair, sampling strategy not clearly defined. |
| Twamley et al, 2011 | To explore the factors that impact on the UK-born ethnic minority women’s experiences and decisions around feeding their infant. | London and Birmingham, UK | 34 ethnic minority women born in the UK (2 Africans). Age Ranged from <20 - >39, education degree or more = 17, GCSE or less = 12 | Semi-structured interviews | Not stated | Pregnancy, birth, caring for the newborn, infant feeding, and family and partner involvement in decisions around care. | Fair, no clear description of data analysis process. |
| Tyler et al, 2014 | To highlight and compare immigrant Sudanese women’s infant feeding choices and patterns before and after moving to a regional city in Queensland, Australia. | Toowoomba, Australia.  (year not stated) | 10 Sudanese women who had birthed and breastfed babies both in Africa and Australia. | Semi-structured interviews | Not stated | Commonalities and differences in the Sudanese mothers’ breastfeeding experiences in Africa and Australia. | Poor, no clear description of recruitment strategy and data analysis process. |
| Wallby et al 2009 | To study the relation between breastfeeding and region of birth in presence of disposable income and other confounding and mediating factors. | Uppsala, Sweden  1997 – 2001 | 12197 infants (212 Africans) born in the period 1997–2001, registered as residents in the county of Uppsala on the 31 of December of their birth year. | Cohort | Not stated | Breastfeeding at 1 week, 6 months and 12 months. | Good |
| Wandel et al, 2016 | To generate knowledge about infant feeding practices of Somali mothers living in Norway and to get better understanding of how they experience and adapt to the advice they receive on the issue. | Oslo, Norway  2012 – 2015 | 21 Somali mothers with infants aged between 6 (± 2) and 12 months and 22 Somali mothers with a 2-year-old child. Mothers were Muslim, age range = 21 – 40 years and most were married. | Semi-structured interview and focus groups. | Multi-recruitment strategy including snowballing. | Mothers’ experiences with breastfeeding and complementary feeding, and the introduction of family food. | Good |

EBF – Exclusive breastfeeding, UK – United Kingdom, USA – United States of America, AA – African American, AB – African-born, IFPs – Infant Feeding Practices, HCPs – Health Care Professionals, GCSE – General Certificate of Secondary Education, BME – Black and minority ethnicity, NHB – Non-Hispanic Black. Quality assessment rating description: A study was rated ‘good’ if the risk of bias was considered minimal, ‘fair’ if there was some risk of bias but not sufficient to make the results invalid and ‘poor’ if there was substantial risk of bias that could significantly affect the interpretation of the results.

Of the qualitative studies, four were carried out in the USA [122, 206, 208, 211], three in the UK [40-42], two in Australia [94, 123], one each in Norway [207], Italy [210], and Finland. [209] Of the quantitative studies, seven were in the UK [113, 147, 215, 218, 225, 226, 231], four in the USA [220, 223, 227, 229], two each in the Netherlands [212, 217] and Israel [224, 230], and one each in Norway [216], Denmark [213], Canada [221], Italy [222], Ireland [228], Sweden [232], and Spain. [219] The publication dates of the included studies range from 1978 to 2017.

The majority of the participants under study were immigrant mothers from Somalia [40, 122, 206-209, 216], Ethiopia [220, 230], and Morocco. [212, 213, 217] One study included African mothers from Burundi, Congo, Liberia, Sierra Leone [94], while other studies [41, 42, 113, 147, 210, 211, 215, 218, 219, 221-229, 231, 232] described the study population as Africans or Black Africans, without specifying which African country/countries of origin the mothers included in the study were.

Although all studies have assessed outcomes relating to the research objectives, some differences exist between quantitative and qualitative studies. While quantitative studies provide some information on the factors that may influence the breastfeeding practices adopted by African mothers, they provide more insight into the breastfeeding practices (initiation and continuation rates) adopted by African immigrants living in developed countries. Similarly, the qualitative studies provide more in-depth information on the experiences of the mothers and the reasons for breastfeeding practices adopted, with less details on the practices themselves. Where factors influencing infant feeding practices are presented in a quantitative study, the findings were coded and presented along with qualitative findings in this review. Similarly, qualitative studies providing information on breastfeeding rates, prevalence and incidence were converted into numerical format and presented with quantitative findings.

### Summary of findings

#### Breastfeeding practices

A narrative synthesis of the breastfeeding practices adopted by African immigrant mothers has been reported in this review due to the variability in reporting across studies. The findings presented here are either directly presented as described in the individual studies or derived by calculations based on the information provided in each study. For example, one study [41] reported the infant feeding practice (e.g EBF for four months or EBF for two months then only formula feeding) of each of its participants, from which percentages were calculated at different time points. It should however be noted that some assumptions were made e.g. in a study that presents the prevalence of breastfeeding, this information has been interpreted in this review as breastfeeding initiation. Similarly, a study reporting breastfeeding practices of infants aged two to six months [210] has been interpreted as the breastfeeding practices of infants at two months of age with the assumption that all infants studied were at least two months of age at the time of the study.

Twenty-eight studies reported on breastfeeding practices [40-42, 94, 113, 147, 206, 207, 209-220, 222-229]. These included breastfeeding initiation, breastfeeding duration, complementary feeding and strategies adopted to encourage breastfeeding.

##### Breastfeeding initiation

Breastfeeding initiation was reported in 16 studies, seven of which reported an initiation rate of 100% among African mothers. [42, 207, 209-211, 220, 223] Six studies reported having an initiation rate over 90% as follows: 90% [219], 92.2% [212], 92.3% [41], 93% [216], 95% [225], and 96.9%. [229] In one study involving two different cohorts (an infant cohort of 9-month old children and a chid cohort of 9-year old children), breastfeeding initiation rates were reported as 84% and 84.3% for each cohort respectively. [228] Two other studies reported breastfeeding initiation rates of 86% [226], 88%. [227] Only one study indicated the timing for initiation of breastfeeding at 93% initiation within 24 hours. [216] An average initiation rate across studies was calculated using the corresponding sample sizes, and 90% of all 4331 participants were estimated to have initiated breastfeeding. One study [218], however, presented its findings as the odds of initiating breastfeeding as a black African compared with being white. The odds ratio (OR) (95% CI) for initiating breastfeeding as a Black African mother was 8.1 (4.4 – 14.7). After adjusting for gender of baby, parity, age of mother, housing tenure, household income, mother’s education, mother’s occupational social class, smoking status, mother’s employment status, 1 or 2 parent household, and child care arrangements, the adjusted Odds Ratio (aOR) (95% CI) was 13.6 (7.8 – 23.7) and a further adjustment to include language spoken at home resulted in an aOR (95% CI) of 10.5 (6.1 – 18.2).

Table 4.4: Breastfeeding initiation rates

|  |  |  |
| --- | --- | --- |
| **Study reference** | **Number of participants** | **Breastfeeding initiation (%)** |
| Castaldo et al, 2017 [210] | 23 | 100 |
| De Hoog et al, 2011 [212] | 232 | 92.2 |
| Fabiyi et al, [211] | 20 | 100 |
| Grewal et al, 2016 [216] | 107 | 93\* |
| Griffiths et al, 2005 [225] | 358 | 95 |
| Hufton et al, 2016 [41] | 13β | 92.3 |
| Jones and Belsey, 1977 [226] | 14 | 86 |
| Kolanen et al, 2016 [209] | 11 | 100 |
| Meftuh et al, 1991 [220] | 45 | 100 |
| Merewood et al, 2007 [223] | 32 | 100 |
| Neault et al, 2007 [227] | 1078 | 88 |
| Nolan et al, 2015 [228]§ | 240 | 84¥ 84.3¥¥ |
| Parker et al, 2017 [229] | 42 | 96.9 |
| Rio et al, 2011 [219] | 2105 | 90 |
| Twamley et al 2011 [42] | 2 | 100 |
| Wandel et al, 2016 [207] | 22 | 100 |
| Kelly et al, 2006 [218]Ω | 321 | 8.1 (4.4-14.7)#  13.6 (7.8- 23.7)^  10.5(6.1-18.2)∞ |

BF – breastfeeding, \*within 24 hours, βOnly HIV-negative mothers reported and one mother was still pregnant, §Two cohorts studied: ¥Cohort 1 (C1) = an infant cohort of 9-month old children and ¥¥Cohort 2 (C2) = a chid cohort of 9-year old children, ΩNot included in aggregate percentage calculation, #Crude Odds Ratio (OR), ^OR Adjusted for gender of baby, parity, age of mother, housing tenure, household income, mother’s education, mother’s occupational social class, smoking status, mother’s employment status, 1 or 2 parent household, and child care arrangements, ∞OR further adjusted for language spoken at home.

##### Breastfeeding duration

Seven studies [41, 42, 209, 212, 214, 217, 222] provided information on breastfeeding within the first week of life. Studies describing breastfeeding rates at hospital discharge were equally regarded as describing breastfeeding within the first week of life. One study [214] reported this as a marginal effect (Standard error) of 0.45 (0.0025) for any breastfeeding (includes EBF, PBF, and mixed feeding). Other studies presented their findings as percentages, two of which reported proportions of any breastfeeding at 5.6% [212] and 90%. [217] Five studies reported EBF rates of 50% [42], 9.1% [209], 38.5% [41], 70.3% [222] and 80% [217]. PBF was reported in two studies, one at 3.6% [222] and the other at 7.7%. [41] Four studies reported rates of mixed feeding at 26.1% [222], 30.8% [41], 90.9% [209], and 50% [42]. Three studies reported rates of no breastfeeding or formula feeding only. De Hoog et al [212] reported a rate of 7.8%, Hufton et al [41] 15.4% and Farchi et al [222] reported 0% no breastfeeding rate at hospital discharge.

Similarly, breastfeeding rates at 1 month were reported in four studies [41, 42, 216, 224]. EBF rates were reported in two studies as 38.5% [41] and 37% [216] and PBF was reported in only one study as 7.7% [41]. The rates of mixed feeding was 30% in one study [224], 44% in another [216], 48.7% in another [42] and 30.8% in a fourth [41]. Any breastfeeding rates at one month was reported as 33% [42], 97% [216] and 34%. [224] No breastfeeding was reported as 18.3% [42], 15.4% [41], and 29%. [224]

At two months, three studies [41, 224, 229] presented findings for breastfeeding rates. Two studies reported EBF rates of 35.2% [229] and 38.5% [41]. PBF was only reported in one study as 7.7% [41]. Mixed feeding rates were 30.8% [41] and 21% [224] and no breastfeeding was 15.4% [41] and 37%. [224]

Likewise at three months, six studies had information on breastfeeding rates. EBF was reported in two studies as 21% [216] and 38.5% [41]. PBF was reported in two studies as 7.7% [41] and 24% [218], mixed feeding in two studies, Fawzi et al [224] at 17% and Hufton et al [41] at 30.8%. Two studies, however, presented any breastfeeding rates at three months of 61% [210], and 6% [224]. The rate of no breastfeeding was reported in three studies as 15.4% [41], 37.8% [212] and 77% [224]. One study [218] presented OR and aOR of breastfeeding at three months if African as compared to being white. The OR (95% CI) was 1.2 (0.9 – 1.6) for PBF and 5.3 (3.3 – 8.7) for any breastfeeding. After adjusting for the factors listed above, aOR was 1.0 (0.7 – 1.6) for PBF and 7.4 (4.2 – 13.2) for ABF. Upon additional adjustment for language spoken at home, aOR was 0.9 (0.6 – 1.4) for PBF and 6.6 (3.3 – 10.8) for ABF. Level of significance was not reported.

Eight studies reported breastfeeding rates at four months. EBF was reported in seven studies and ranged from 7% [216] to 76.3% [230]. The rates were <20% [217], 49.2% [213] 32.7% [212], 7% [216], 38.5% [41], 60% [40] and 76.3% [230]. PBF reported in two studies as 0% [41]18.3% [230]. Three studies reported on mixed feeding rates at 40% [40], 30.8% [41] and 67%. [216] Any breastfeeding was reported in one study at <40% [217], and two studies reported no breastfeeding rates of 38% [113] and 23.1% [41].

Among the nine studies [41, 42, 147, 209, 210, 212, 216, 223, 224] reporting breastfeeding rates between five and six months, three studies [41, 209, 216] reported EBF rates as 0% [216], 9% [209] and 30.8% [41]. More mothers were mixed feeding with one study reporting a rate of 72.2% [209] and another 38.5% [41]. Any breastfeeding was high in most studies with three studies reporting rates over 70% (79.2% [147], 79% [216], 72.7% [223]). No breastfeeding was reported in five studies [41, 147, 209, 212, 223] and ranged from 18.2% [209] to and 58.1% [212].

Table 4.5: Breastfeeding rates in percentages according to the type of feeding practices between one week and six months after birth.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study Reference** | **No.** | **BF at hospital discharge or week 1 (%)** | | | | | | **Breastfeeding at 1 month (%)** | | | | | | **Breastfeeding at 2 months (%)** | | | | | | **Breastfeeding at 3 months (%)** | | | | | **Breastfeeding at 4 months (16-17 weeks) (%)** | | | | | **Breastfeeding at 5 – 6 months (%)** | | | | |
|  |  | **EBF** | **PBF** | **MF** | **Any BF** | **No BF** | **EBF** | | **PBF** | **MF** | **Any BF** | **No BF** | **EBF** | | **PBF** | **MF** | **Any BF** | **No BF** | **EBF** | | **PBF** | **MF** | **Any BF** | **No BF** | **EBF** | **PBF** | **MF** | **Any BF** | **No BF** | **EBF** | **PBF** | **MF** | **Any BF** | **No BF** |
| Brick et al, 2014 [214] |  |  |  |  | 83.8§  0.45 (0.025)\* |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulk-Bunschoten et al, 2008 [217] | 135 | 80.0 |  |  | 90.0 |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  | <20.0 |  |  | <40.0 |  |  |  |  |  |  |
| Busck-Rasmussen et al, 2014 [213] | 292 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  | 49.2 |  |  |  |  |  |  |  |  |  |
| Castaldo et al, 2017 [210] | 23 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  | 61.0 |  |  |  |  |  |  |  |  |  | 43.0 |  |
| De Hoog et al, 2011 [212] | 232 |  |  |  | 5.6 | 7.8 |  | |  |  |  | 11.9 |  | |  |  |  |  |  | |  |  |  | 37.8 | 32.7 |  |  |  |  |  |  |  |  | 58.1 |
| Farchi et al, 2016 [222] | 111 | 70.3 | 3.60 | 26.1 |  | 0.0 |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fawzi et al, 1997 [224] | 351 |  |  |  |  |  |  | |  | 30.0 | 34.0 | 36.0 |  | |  | 21.0 | 18.0 | 62.0 |  | |  | 17.0 | 6.0 | 77.0 |  |  |  |  |  |  |  |  | 0.2 |  |
| Goel et al, 1978 [147] | 99 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  | 79.2 | 20.8 |
| Grewal et al, 2016 [216] | 107 |  |  |  |  |  | 37.0 | |  | 44.0 | 97.0 |  |  | |  |  |  |  | 21.0 | |  |  |  |  | 7.0 |  | 67.0 |  |  | 0 |  |  | 79.0 |  |
| Griffiths et al, 2007 [113] | 334 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |  |  | 38 |  |  |  |  |  |  |
| Hufton et al, 2016 [41] | 13β | 38.5 | 7.7 | 30.8 |  | 15.4 |  | |  |  |  |  |  | |  |  |  |  | 38.5 | | 7.7 | 30.8 |  | 15.4 | 38.5 | 0 | 30.8 |  | 23.1 | 30.8 | 0 | 38.5 |  | 23.1 |
| Ingram et al, 2008 [40] | 5 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  | 60.0 |  | 40.0 |  |  |  |  |  |  |  |
| Kelly et al, 2006 [218] | 321 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | | 24.0 |  | 5.3 (3.3-8.7) #  7.4 (4.2-13.2)^  6.0 (3.3-10.8)∞ |  |  |  |  |  |  |  |  |  |  |  |
| Kolanen et al, 2016 [209] | 11 | 9.10 |  | 90.9 |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  | 9.0 |  | 72.7 |  | 18.2 |
| Merewood et al, 2007 [223] | 32 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  | 72.7 | 27.3 |
| Parker et al, 2017 [229] | 42 |  |  |  |  |  |  | |  |  |  |  | 35.2 | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rubin et al, 2010 [230] | 93 |  |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  | 76.3 | 18.3 |  |  | 5.4 |  |  |  |  |  |
| Treuherz et al, 1982 [231] | 191 |  |  |  |  |  |  | |  | 48.7 | 33.0 | 18.3 |  | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Twamley et al, 2011 [42] | 2 | 50.0 |  | 50.0 |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  | 50.0 |  |

BF – breastfeeding, EBF – exclusive breastfeeding, PBF – predominant breastfeeding, MF – Mixed feeding, βOnly HIV-negative mothers reported and one mother was still pregnant, §Average percentage over 7 years, \*Marginal effect (Standard Error), #Crude Odds Ratio (OR), ^OR Adjusted for gender of baby, parity, age of mother, housing tenure, household income, mother’s education, mother’s occupational social class, smoking status, mother’s employment status, 1 or 2 parent household, and child care arrangements, ∞OR further adjusted for language spoken at home.

Total breastfeeding duration was reported in 12 studies [113, 147, 206, 209-211, 213, 215-217, 220, 230], two reporting on EBF duration [213, 217] and eleven reporting on total duration of breastfeeding [113, 147, 206, 209-211, 215, 216, 220, 223, 230] (Table 4). Of the two studies reporting on EBF duration, one study [213] observed that the risk of stopping EBF before four months among African mothers compared with continuing EBF for over four months was 1.67 (95%CI: 1.20 – 2.22). The other study observed that mothers stopped EBF at a median duration of three weeks [217]. Duration of total breastfeeding varied across studies ranging from as early as one month [210] to three years [147]. Five studies [147, 206, 210, 211, 230] indicated that a higher proportion of African mothers continue breastfeeding for up to one year, compared with those that cease breastfeeding at three months [217], four months [215, 220], six months [216] or seven months [209]. One study reported the Rate Ratio of breastfeeding cessation before four months for African mothers as compared to ‘white’ mothers as 0.6 (95% CI: 0.5 – 0.7). The likelihood of stopping breastfeeding before four months among African mothers compared with ‘white’ mothers reduced further after adjusting for maternal education, socio-economic status, employment, age, parity and lone parenthood. [113]

Table 4.6: Duration of breastfeeding

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Study reference** | **No. of participants** | **Breastfeeding Duration** | | |
|  |  | **EBF** | **Any Breastfeeding** |
| Bulk-Bunschoten et al, 2008 [217] | 135 | 3 weeks# | 12 weeks# |
| Busck-Rasmussen et al, 2014 [213] | 292 | Risk of suboptimal BF (EBF for <4 months) = 1.67 (1.26 - 2.22) | NR |
| Castaldo et al, 2017 [210] | 23 | NR | Between 1 month and 2 years: 17% (3-6 m), 13% (6-12m), 31% (1-2y) |
| Fabiyi et al, 2016 [211] | 20 | NR | 9-12 months |
| Goel et al, 1978 [147] | 99 | NR | > 1 year, up to 3 years = 5% |
| Grewal et al, 2016 [216] | 107 | NR | 20.6% stopped before 6 months |
| Griffiths et al, 2007 [113] | 334 | NR | Rate ratio breastfeeding cessation before 4 months  Crude =0.6 (0.5-0.7)  Adjusted = 0.7(0.6-0.8) |
| Kolanen et al, 2016 [209] | 11 | NR | 7.8 mths\* |
| Meftuh et al, 1991 [220] | 45 | NR | 4.2 months\* |
| Moore et al, 2013 [215] | 107 | NR | 31% weaned at 17 weeks |
| Rubin et al, 2010 [230] | 93 | NR | 19.7±12.4^ months |
| Steinman et al, 2010 [206] | 37 | NR | Approximately 1year |

#Median, \* Mean. ^ Mean ± Standard Deviation. EBF – Exclusive breastfeeding, NR – Not reported.

##### Complementary feeding

Complementary feeding was discussed in five studies. [94, 206, 212, 215, 216] The age at complementary feeding ranged from three months [94], to six months or more. [206, 212, 215] Complementary foods given also varied widely, but was mostly industrialised or canned baby food [94, 216], baby cereal/rice/pasta [206], fruits [206, 216], homemade porridge/other cereals. [216]

##### Strategies to encourage breastfeeding

Somali mothers described ways to recognise infant hunger and satiety such as infant’s body language, ability to sleep and timing of feeding, with timing of feeding being the most common method. [206] Mothers who did not time feeds expressed difficulty in understanding infant’s feeding needs or hunger status [206, 217] and contributed to early cessation of breastfeeding among Moroccan mothers in one study, in addition to other infant related reasons such as colic, constipation and vomiting. [217]

However, the mothers employed strategies to increase their milk supply during lactation, such as the consumption of certain foods [94, 206], having a healthy appetite [122], breastfeeding more [206], increasing fluid intake [206] or simply focusing on the child’s needs. [209] In some cases however, the mothers were not certain how milk supply could be increased and suggested that it may be dependent on individual’s make-up and cannot be modified. [206] Not having enough milk to meet the baby’s demands was seen as a problem associated with lifestyle changes and increased stress levels in developed countries. [206, 207, 209]

#### Knowledge, beliefs and attitudes towards breastfeeding

Twelve studies [40-42, 94, 122, 206-211, 217] reported on the knowledge, beliefs and attitudes of African mothers towards breastfeeding.

##### Knowledge of Breastfeeding

Three studies [41, 42, 211] describing participants as Africans reported on the mothers’ awareness of the health, nutritional and emotional benefits of breastfeeding, referring to the *“antibodies transferred to the infant”* and *“reduced chances of breast cancer for the mother”* in one study [42], *“strong bones”*, *“strength”* *and “good immunity”* in another [41], being *“easier on the baby’s digestive system”* and *“prevent illness”* in another. [211] The *“economic benefit of not having to purchase formula”*, *“the emotional connection with the infant”, “weight loss of mother”, “the convenience of having a ‘supply ready to go’”* and *“the developmental benefits to the infant”* were other benefits highlighted in one study. [211] Knowledge about EBF was not reported in most studies but one study showed that Somali mothers expressed uncertainty about what EBF meant and what it entails. [207]

‘EBF, I do not know what it means’ [207]

‘Does it mean that we ought to breastfeed for two years?’ [207]

##### Beliefs around breastfeeding

Six studies [41, 94, 122, 207, 208, 211] examined mothers’ beliefs about breastfeeding. These studies reported that most mothers were positive about breastfeeding describing breastfeeding as “*the natural thing to do”* [94, 207], *“the norm”* [41, 94, 122], *“a better source of nutrition*” [94] and a *‘typical’* thing to pass on from one generation to the next. [122] One study [211] of African-born versus African American mothers reported African-born women recalling more memories of breastfeeding during their childhood and spoke of how widely practiced and accepted it was in their home countries.

The main reasons for choosing breastfeeding among the mothers in the included studies were reported in five studies; three highlighting the health and other benefits to the infant such as preventing illness and easier on baby’s digestive system [211], aiding infant and mother bonding and being the best milk for the baby [206], and its medicinal benefits [209], and four indicating that mothers breastfed as a result of their religious beliefs [41, 206, 207, 209]. In fact, mothers in one study believed that breastfeeding is the will of God and not being able to breastfeed was not *“considered a failure, as everything happens in life according to God’s will, and humans have to accept this fact”*. [94] The mothers reported that in the Qur’an, breastfeeding is recommended for two years. [206, 207] Most of the mothers in the studies that considered the optimal duration of breastfeeding, particularly those in the Islamic religion, agree that the optimal duration of breastfeeding should be between two and 2.5 years [41, 94, 206, 207], as instructed in the Qur’an. Other reasons for breastfeeding were presented in one study and included mother-infant closeness, infant’s preference, soothing crying baby and putting baby to sleep. [206]

###### Colostrum

Only three studies [94, 122, 206] examined the feeding of colostrum to infants. There was some variation in the beliefs around colostrum. Some Somali mothers believed in the Somali tradition that the colostrum is *‘dirty milk’* (referred to as *danbar* in Somali*)* and should be discarded because it has stayed too long in the breasts and is no longer fresh. [122] This information was often received from friends and family. Similarly, another study of Somali mothers expressed the mothers’ beliefs that the colostrum makes the baby sick. [206] On the other hand however, some other Somali mothers believed that the colostrum is fresh because it is the first milk the mother produces. [206] Notwithstanding, Somali mothers held strongly to the belief that milk that sits in the breasts longer than two hours is old and should be discarded. [206]

‘Her mom says . . . if she goes out and doesn’t feed the baby 2 h and comes back, the milk that is in the breast . . . it’s old, don’t feed the baby’. [206]

In a study of African mothers from Sierra Leone, Congo, Burundi and Liberia, the mothers expressed beliefs that colostrum may be useful in cleansing the infant’s intestines [94]. Some of the Somali mothers had only given colostrum to their infants after migration and being informed by health professionals of its benefits. [206]

###### Water

The mothers held strong opinions about feeding the infant water within the first week of life. Some believed it was necessary because breastfeeding makes the infant thirsty [207], others used it for cleansing the infant’s intestines [94], while others simply reported giving sweetened water, containing either sugar or honey at breastfeeding initiation. [209]

‘Shall I tell you one thing? It is a bit funny, but we give water very early, we do. In Norway they say there is no need for water during breastfeeding, but we say the opposite: When you breastfeed, the child gets thirsty. That is what they say in Somalia. . . I have always given some water’ [207]

Some mothers reported that they only gave water in the summer when the weather was warmer, believing that the infant will need the extra fluid then [207]

###### Milk sufficiency

Mothers in four of the included studies [40, 94, 207, 208] expressed beliefs that the breast milk alone was not sufficient for the healthy development of a baby, resulting from a desire to have bigger babies.

“They think the baby will not grow [fat enough] on breast milk.” [94]

“They are told that their children will not grow tall and large if they do not supplement.” [40]

Mothers expressed concerns about the amount of milk they produced and whether this was sufficient to meet the demands of their infant. [94, 122, 206, 207, 209, 210] Not producing sufficient milk or not being able to tell how much milk the breasts were producing and what volume the infant was having was considered a challenge which led to early supplementation. [122, 206, 211]

“You do not know how many ounces did the baby take in. In the bottle you can make sure, but how long would you have to breast feed each day, and how would you know that the baby was full? You can’t see it.” [122]

##### Attitudes towards breastfeeding

Attitudes towards breastfeeding involved a mix of positive and negative responses towards breastfeeding. A study on Somali mothers reported that mothers *‘displayed great affection’* towards breastfeeding [94], while another study stated that the mothers liked breastfeeding and considered themselves good at it. [208] One study [94] indicated that Somali mothers often engaged in sexual abstinence during the first year of an infant’s life to encourage breastfeeding.

“I think that breastfeeding is a great foundation for babies. My mum taught me the importance of breastfeeding ‘cos there’s a lot of viruses going around and he never got really sick . . . Its just part of our lifestyle.” [94].

“We do good at breastfeeding. That’s the first thing Somali women like to do.” [208]

Attitudes towards other aspects of breastfeeding such as the use of breast pumps, breastfeeding in public and the host environment and attitudes towards advice and information from friends and family were equally reported. [40, 42, 94, 122, 206-211]

###### Breast pumps

The mothers were not familiar with breast pumps and its use. [206-208] They described breast pumps as being too cumbersome [207], difficult and not a viable option if they were to breastfeed for as long as two years. [208]

“Yeah, pumping is not known, it’s kind of difficult. I don’t like pumping and with pumping, you’re not going to breastfeed 2 years.” [208]

Some mothers, however, expressed interest in using breast pumps due to their desire and the demand of maintaining breastfeeding but they had limited experience with their use. [206] Although some recognised that using breast pumps to get breast milk to save could help to increase breast milk production, a few were sceptical about this owing to the traditional belief that milk spoils after too much time in the breast. [206] Some other African mothers had fed expressed milk to their infants. [211]

###### Breastfeeding in public

In five studies, mothers stated that there was some stigma and shame associated with breastfeeding in public which led them to supplement with formula milk when out and about. [42, 94, 122, 206, 207] Factors such as the lack of visibility of public breastfeeding [94], traditional unacceptability [42, 206], being a ‘black’ woman (women described being watched and judged as being ‘primitive’ for being an African mother breastfeeding her child) [94], and their religion (Islam) [207, 209] were highlighted as reasons why they felt ashamed to breastfeed in public. However, mothers who were comfortable breastfeeding in public appeared to be mostly Muslims who stated that their clothing helped them in such situations. [40] Notwithstanding, they sought private places such as changing rooms and toilets, preferring places where they would not be seen by men, particularly because they felt the men of their host countries got offended seeing a breastfeeding lady. [94]

“You hardly find someone (in Australia) who breastfeeds in public . . . You are ashamed to take your breast out in public to give food. . . Whereas over there, if your child is crying, people around you are going to hit you to give a breastfeed to your baby.” [94]

“Yes, you cannot breastfeed in public, it is so embarrassed but in Africa people breastfeed everywhere nobody bothers. African women living here also feel shy to breastfeed in public.” [94]

“Life here [in the U.S.] is outside the house a lot, so it’s easier to give the bottle than breastfeed all day.” [122]

“The (African) men know it’s part of our lifestyle. We have to breastfeed so when he sees a lady breastfeeding he keeps his eyes off her. She’s performing her duties so he don’t go watching her . . . But here it’s hard; (to) some men its offensive.” [94]

###### Breastfeeding in host environment

Apart from the feelings of stigma and shame associated with breastfeeding in public, a number of negative emotions regarding breastfeeding in the developed countries were discussed. Mothers highlighted feelings of vulnerability and discrimination when interacting with health professionals, due to their minority status. [207] They also spoke of the fear of fitting in and doing things right [207], and fear and concerns around lactation, work and their health. [211] Additionally, one study [210] highlighted that some mothers felt sadness, anger and fear in relation to psychological violence within their families, as well as traumas following religious persecution in their native context, which led them to stop breastfeeding.

###### Advice and Information from friends and family

Mothers often felt pressured to listen to and act on the advice and information they received from different sources particularly their friends and family [40, 94, 122, 207, 211], and feared the stigma and criticism that could result for non-adherence. [94] Whether it was advice to encourage breastfeeding or advice encouraging supplementing with formula, the mothers felt the need to adhere to whatever advice they were being given. They stated that they lacked the confidence to go against the advice and information they received from the women in their community telling them to supplement. [40]

‘As a younger generation if we don’t want to breastfeed, we really don’t have a choice sometimes. Because the elders, neighbours and grandparents … breastfeeding is the typical thing.’ [122]

‘I think it is a cultural conviction, this thing that breast milk is not enough. . . I think this is the reason why my breastfeeding came to an end. . . I always felt that pressure: it is not enough, it is not enough, you have to give something else in addition, and when they first begin with the bottle they refuse the breast’ [207]

‘I felt an enormous pressure to breastfeed at the health clinic, and it was a bit like breastfeed, breastfeed, breastfeed. In a way you felt like a failure if you couldn’t do it’ [207]

This participant described ongoing tension with her mother about breastfeeding and her mother’s belief that her milk supply was insufficient. [211]

#### Influence of socio-Demographic, economic and cultural factors on breastfeeding

##### Cultural factors

One of the major cultural factors affecting breastfeeding practices reported in seven studies was belief that infants need to be big or fat. [40, 42, 94, 122, 206, 207, 217] The mothers believed that a big or ‘plump’ baby is healthier and has more protection from illnesses and having the ideal ‘plump’ was linked to health, strength and beauty [42, 94, 206] An infant that does not have the right ‘plump’ is believed to be more susceptible to illnesses [206], and the need to achieve a bigger baby was considered a reason to stop breastfeeding in a study of Moroccan mothers. [217]

“In our culture if the baby is really fat, they like it and say, “oh, he’s cute.” [94]

‘Healthy women should have healthy big babies.’[40]

“The doctor thinks my baby is too fat. To me, she looks really skinny. The girls in her category, she’s in the 98th percentile, she’s really good, you know? But the doctor [says] she is not supposed to be these pounds.” [122]

‘when the child is fat, we think he’s healthy; when the child is skinny, we think he’s sick’ [206]

The mothers often received praises from older women in their community for doing a good job when their infants were of a certain size [207], described by some as *“just the right plump, not over-fat like obesity, just middle”.* [206] Two studies [206, 207] however noted that the desire to have a big baby was strongest during infancy, particularly between zero and six months [206], but as the child approached school age, the mothers are more keen for them to lose weight to avoid being teased by peers.

‘I also have a four-year-old. . . she is quite big, and I am very concerned. . . you know how children are, they will tease. She has to reduce weight before she begins schooling, I have decided and I try as hard as possible’ (Amina, age 32) ‘There you have the problem. First. . . when the children are small there is a pressure that the child should be chubby, and when the child begins schooling, the parents realize that they are too (big). . . they compare’ [207]

##### Economic Factors

Only one study [94] discussed on the economic factors influencing breastfeeding. African mothers expressed a sense of increased financial security and financial freedom whilst living in a HIC, which contributed to early supplementing with formula milk. The mothers expressed that formula milk was more accessible and affordable to them and they were more likely to use it whilst in their host country compared to when they were in their home countries.

#### Support system

##### Support from female friends and family

African mothers reported having a strong support system as a traditional practice in their home countries, particularly from female friends and family members [40, 94, 209, 211]. The most important source of support and information for most of the mothers was their own mothers (infant’s grandmother). [94, 208, 209] A new mother may live with her mother for one to two years in order to get necessary help with childcare and housekeeping [94], or have the relative(s) or hired help to help out during the initial 40 days after birth. [209]

‘Mums and aunties and grandmothers (help us) . . . our extended family. We have friends so we considered them to be our family’. [94]

After migration to a developed country, they noted the absence of this kind of support but highlight the possibility of replicating such practice by turning to female friends and relations. [94] However, the busy schedules of most individuals in Western societies meant that replicating this support system was often challenging and anyone who managed to get some sort of support similar to this was considered ‘*lucky’.* [209]

Support received from women was not limited to physical assistance but extended to giving advice and information on breastfeeding and childcare. [40, 209, 211] Often, older mothers advise younger ones, teaching them to breastfeed (breastfeeding positions, frequency etc) [122, 206, 208, 209] and informing them of the benefits of breastfeeding and their cultural practices. [40, 209] Sometimes the information received was in support of breastfeeding *–*

Mothers and older women encouraged these informants to breastfeed by telling them that breastfeeding is beneficial for the child and also prevents illnesses. They were told the duration for how long a child should be breastfed and were advised to be patient during their initiation of breastfeeding. [209]

- and at other times, information received was not supportive–

‘‘while we are here in America, just do bottle-feeding. That makes it easier for you, you’re fine, you grew up all right… you’re crazy for all that stuff [breastfeeding]’’ [211]

“breast milk alone is insufficient for the baby, and supplements are needed”. [40]

However, in the included studies, the mothers took the information received from females in their families and communities as important and highly valuable, and sometimes found the advice from health professionals redundant. [209] Nevertheless, the women expressed that this information from friends and family puts them under pressure to act on what they have been told. [40, 94, 122, 211]

##### Support from male friends and family

Similarly, their male spouses were considered very vital in their support system, as a source of encouragement by recognising breastfeeding as part of the mother’s job [94], as well as in providing assistance within the household. [209] Traditionally, there was no expectation from African men to get involved with household chores or childcare [94, 209] but some women reported that the fathers had started to get involved in these, taking the role of female family and friends in the absence of such support after migration. [42, 209] Some women reported having their spouses involved from birth. [209]

##### Other support from friends and family

Support from friends and relatives were equally vital as they not only encouraged breastfeeding but also helped in feeding and caring for the infant while in hospital, and thereafter. [40, 41, 207, 209, 211] Family and friends were said to visit the mother after birth, accompanied by *“a gift and a piece of information”.* [40] Although the information provided often encouraged breastfeeding, including advice on increasing milk supply pumping and storing milk [41, 207, 211], some family members were said to advise the introduction of formula milk from birth. [207] Infants’ grandparents were said to be generally supportive of breastfeeding [40, 41, 207, 211], whereas employers were said to be discouraging. [211]

##### Health Professionals’ support

Mothers in the included studies further highlighted the information and support they received from health professionals both in their home country [94] and in the host country. [40, 42, 122, 206-209] These included information about breastfeeding and its benefits, breastfeeding positions, breastfeeding on demand, amount of breast milk needed, skin to skin contact, and rooming in with their babies. [122, 209]

“My mom just knew the typical position [for breastfeeding], but then there are all these positions that you can use. It helped after I came to lactation, they [nurses/doctors] could show me exactly the different positions I could use.”[122]

Although considered highly valuable, the information received from health professionals in the host-country sometimes conflicted their traditional beliefs and information from friends and family [40, 42, 122, 206, 207, 211], and this impacted on how they viewed the support.

‘I have received advice from several relatives who have said that I should give formula milk as early as possible, even at the time when I was still in the hospital. For the first few months, people were like ‘‘No, you should give it to him. Just disregard what the doctor is saying and ‘‘sneak’’ it in’’. . .’ [207]

‘One mother was told by a nurse to stop bottle-feeding her baby at night because her baby was in the 98th percentile for weight. She admitted that she had difficulty understanding this directive because in her culture plump babies were considered healthy.’ [122]

‘The women stated that they were informed by their general practitioner that they could introduce other drinks and/or solids between 4 and 6 months… Although the midwives advised them that breast milk was sufficient…’ [40]

‘The doctors tell the mothers what to learn, but the mothers tell you [what is] traditional . . . and sometimes [they all tell you] the same’. [206]

When the information from health professionals coincided with the beliefs and intentions of the mothers, it was more valued compared with information that was not in agreement with the beliefs of the mothers. [207] Sometimes, visits to the health clinics, particularly in urban areas were considered stressful and worthless and other times, they were reported as being very positive. [207] Mothers spoke about using their own judgement as well [206, 207], especially women who had previous experiences.

‘I am an experienced mother, so I relate to my own knowledge. But when it comes to the health clinic, I usually take the parts of advice that suit me the most. . . That (advice) is something that is suitable for them, but I have my background and culture and follow a lot of that too. And when it comes to family. . . I take it and use my common sense when I choose things’. [207]

‘I kind of follow. . . my own thing, because she (mother) knows that we read so much. Our own parents at that time (when they became parents) embraced it all, what shall I call it – old wives tales. But here, we can mostly find out what it is we should give to children’. [207]

One major barrier identified by the mothers to receiving adequate support in the host environment was the language barrier. Mothers expressed how they received limited support and information because they were not fluent in the language of the host country. [94, 206, 207, 209]

‘They wanted to tell me about feeding my baby but they send me a person who speaks English, I don’t understand English’. [94]

They noted that they only received information when an interpreter was made available, which was not always the case. [94, 207, 209]

‘I was lucky. I had an interpreter, as I am not so fluent in Norwegian. So I just could ask all the questions’. [207]

The absence of an interpreter and family or friends to help with interpretation potentially led to a feeling of loneliness. [209] Mothers in the included studies, particularly Somali mothers expressed their desire for information (fliers, leaflets etc) in their native languages for easier comprehension. [206] Additionally, mothers wanted additional and more ‘concrete’ information to help them understand and deal with the challenges of breastfeeding, [40, 41, 207, 211] including better understanding of ‘supply and demand’ in breastfeeding, milk sufficiency, and overcoming challenges.

Furthermore, the mothers requested additional support in terms of peer support groups [41], support from employers and workplaces [211], lactation support following discharge from hospital [211], as well as support groups set up for women of their culture. [40]

#### Perception of health professionals

Health professionals reported that African mothers had a high tendency to introduce formula to their infants, often as early as day one after birth mainly due to their cultural beliefs. [42, 122] One such belief was that breast milk is not produced for the initial few days after delivery and that the initial milk production (colostrum) was ‘bad’ or ‘dirty’ [122], in agreement with the report from mothers regarding colostrum (See section 3.2.2.2). This resulted in a delayed initiation of breastfeeding and the use of formula within the first few days of the infants’ life. [122] Another such belief was the desire to have a big baby, which resulted in mix-feeding or ‘topping-up’, a common practice among African mothers that was not about to stop. [42]

‘Some African women will always mix feed because that’s the way they do things and they will continue and they will encourage their young people to do that’. [42]

‘The [African] mothers are always telling them to mix-feed because they have this insight that I don’t know whether it is to do with how they grew up like they were living in poverty in their home country or what but a big baby seems to be more healthy, a sign of health. Big and healthy so they feel that just the breast milk is not enough therefore they have to give formula milk as well to make the babies a bit bigger. They have a bit of difficulties trying to tell their parents ‘no, just breastfeeding is fine you don’t have to mix-feed as well’. [42]

Health professionals in the included studies also acknowledged the influence of family and friends in encouraging supplementation with formula among African mothers, a practice that led to disappointment and frustration among health professionals. [42] They explained that their biggest challenge in counselling immigrant mothers about breastfeeding was the cultural differences. [122]

Health professionals reported feeling unprepared to support women with different beliefs because the women sometimes were not interested in what they had to say or didn’t trust them, valuing the advice from their own mothers over advice from nurses. [122] They also reported that the presence of other family members during support sessions with the mothers interfered with their session and the mothers were reluctant to divulge information or breastfeed in such settings, due to their beliefs about exposing body parts. [122]

Language was also reported by health professionals to be a major barrier to supporting immigrant mothers, even with the use of interpreters as they worried whether the interpreters were passing across the right messages. Additionally, most of the interpreters were male which was considered inappropriate for breastfeeding support, and was therefore counterproductive. [122]

Health professionals felt that the cultural competence seminars they attended did not provide them with sufficient information and confidence to support immigrant mothers. Some health professionals reported supplying formula to the mothers because they were uncertain how to allay their concerns. [122] The need for increased awareness at local and national levels, as well as additional support and resources for immigrant mothers of refugee status, were also identified by health professionals. [41]

‘There’s no point having the best breastfeeding team in the hospital if they don’t go and see people on the ward… To be with women, to help them, to give them that time… and I’m not saying that necessarily has to be a support worker or a trained midwifery staff, even like volunteers… That’s what we have to get in because I think their expertise within health would be a good thing.’ [41]

## **Discussion**

The aim of this systematic review was to synthesise the evidence on the factors influencing breastfeeding practices among mothers of African origin who have migrated to a HIC. Breastfeeding initiation was high among African mothers living in HICs but reduced drastically over the first few weeks. EBF was practiced by a third of the mothers at one month and by three months, only a quarter of the mothers were still exclusively breastfeeding.

The evidence showed that African immigrant mothers have strong beliefs regarding breastfeeding which sometimes changed after migration, having either positive or negative effects on their breastfeeding practices. The belief that the size of an infant is a determinant of health had strong influences on their breastfeeding practices. Mothers who held on to this belief were more likely to offer supplements to their infants early, and mothers who were not very keen about having a big baby were often influenced by friends and family to supplement, particularly from the older generation. Other factors contributing to early supplementation among African immigrant mothers included the sense of financial freedom after migration to a developed country, the availability of options to choose from, stress and pressure resulting from the new environment which was attributed to a reduction in milk supply, and a lack of knowledge on strategies to improve breastfeeding.

Knowledge on the importance and benefits of breastfeeding to both infant and mother was high among the African mothers but there was little or no knowledge of EBF. Owing to this as well as factors such as their beliefs about breastfeeding, African mothers were more likely to feed formula to their infants before six months of age than to practice EBF. A high breastfeeding initiation rate was reported across studies. However, by four months of age, EBF rates had reduced by about half, compared with breastfeeding rates at one week and one month of age. Mixed feeding was more widely practiced at four months of age. Breastfeeding duration lasted between four months and three years across the different studies.

This review showed that African immigrant mothers felt the need to adopt the perceived western approach to breastfeeding which involves formula feeding. They considered improved financial status and availability of options to choose from as a means to achieve a bigger baby and feel they have no excuse not to have big babies. The mothers expressed the limited choice they had while in Africa indicating that they had to breastfeed as it was the only option readily available as formula milk was only available to the wealthy. Although the mothers consider EBF as the standard practice in Africa, it is uncertain that EBF is truly practiced owing to their beliefs about giving water within the first week and discarding colostrum.

Additionally, African mothers expressed the embarrassment and stigma associated with breastfeeding in public, which had an influence on their infant feeding decision. Some mothers were able to find strategies to continue breastfeeding despite the inconvenience, while others resorted to formula feeding. Although expressing breastmilk was considered as an option, there was some scepticism around it owing to the belief that breastmilk gets stale after a while and is not good for the infant. Some mothers felt it was not a viable option if they were to breastfeed for two years.

Similarly, African mothers perceived that a lack of adequate support influenced their breastfeeding practices. Although the mothers highlighted the sources of support they received, from friends and family and health professionals, the support received after migration was considered inadequate to maintain breastfeeding practices of their home countries. Firstly, they had experienced a change in roles between fathers and mothers within the family where the fathers are more involved in childcare and mothers are more involved in working to support the family income. Having to manage these increased demands for the mothers resulted in supplementing breastmilk with formula milk in order to get some assistance with infant feeding from friends and family, as well as health professionals. Secondly, friends and family who would have offered unwavering support were too busy to offer the same level of support that would have been offered had they been in Africa. Thirdly, in instances where the mothers received lots of support, it was challenging to navigate the varying information and advice received. Infants’ grandmothers and other older mothers within the family were the most influential in the decisions around breastfeeding, similar to findings from studies of other immigrant populations [233] and the mothers did not feel confident enough to go against their suggestions.

Findings from health professionals were similar to what the mothers had expressed such as early supplementation due to the inappropriateness of colostrum for the infant and the desire for big babies, as well as the influence of friends and family in the decision-making process of the mothers. Health professionals reported that they experienced challenges working with African mothers due to their cultural beliefs, the influence of their family members whose advice and opinion is more valued. This is contrary to the findings from a review of the belief, attitudes and practices of Chinese immigrant mothers in developed countries [233] where the opinions of health professionals were found to be highly valued by the mothers. Language barrier was equally a major challenge highlighted by the health professionals and the use of interpreters was sometimes perceived as inappropriate due to gender concerns.

### Strengths and limitations

One major strength of this review is the robust systematic and thorough search strategy to identify relevant evidence relating to the review question. A total of 12 databases were searched for relevant materials. All relevant studies identified irrespective of year of publication or study design (quantitative or qualitative) were included in the review and therefore strengthens the evidence provided. Independent data extraction and quality assessment by two reviewers reduces the risk of bias during the critical appraisal and data extraction process. Additionally, citations and reference list searches of all included studies were carried out to ensure that no relevant materials were missed during the database searching, reducing the risk of publication bias.

However, it is not without limitations. First, limiting included studies to only studies published in English language or with existing translations implies that some relevant information may have been missed from the review. Secondly, it was not possible to contact all the authors where required either because the authors did not respond to several attempts at making contact or author contact information could not be retrieved. Two potentially relevant quantitative studies were therefore not included in the review because the data presented in the individual studies were unclear and the authors did not respond [132, 214]. Thirdly, it was not possible to pool quantitative results into a meta-analysis due to the heterogeneity of data in the included studies.

During the process of identifying studies for the review, one major limitation was the description of the population included in individual studies. Many studies described their study population as African-Americans without indication of immigration history. This may have limited the findings for this review as some African-Americans may have immigrated from African countries and settled in the USA, in which case they would have been relevant to this review.

## Informing the Topic Guides of the Qualitative Interviews

This systematic review identified patterns in the beliefs and culture of African mothers who had migrated from their home countries to a HIC. The review helped to identify factors influencing breastfeeding among African mothers which could be further explored among mothers living in the UK. This review therefore helped to create a foundation for the qualitative interview topic guide, identifying key areas of interest to elicit from participants of the interviews. For example, a key finding of the systematic review was that African mothers perceived that the size of an infant is linked to health and therefore felt a need to supplement breast milk with formula (adopting the Western approach) in order to achieve a big baby, especially with the increased availability of formula milk and financial freedom. This informed a question in the topic guide; what *factors do you think may have influenced your decision to breastfeed or not? (previous knowledge, family, friends, culture from home country, culture in UK, economic factors, availability of formula milk etc).*

The findings of the systematic review provided a framework for the categories of questions to be asked in accordance with the objectives of the qualitative research. Main themes from the systematic review highlighted key areas that could be explored in interviewing and served as the main sections in the interview topic guide. Questions were then developed from these main headings and the quotes and findings from the reviewed studies provided an idea of the kinds of questions to be asked and how they should be asked to elicit particular responses from the participants. This review also guided the language used in developing the topic guide to aid easy understanding of the participants.

# CHAPTER 5: Findings from qualitative interviews with African mothers

## Chapter introduction

This chapter presents the emergent themes from the qualitative interviews carried out with African mothers. Nineteen mothers were recruited to this study after approaching 23 mothers to take part. All 19 mothers were interviewed. Mothers were recruited from various sources as shown in table 5.1 below. Of the four mothers who did not participate, one mother had a very busy schedule and was unable to find a suitable time to be interviewed, and the other three mothers were unwilling to share their experiences due to personal reasons even after explaining to them that all interviews will be anonymised.

Table 5.1: Number and sources of mothers recruited into the study.

|  |  |
| --- | --- |
| **Method of Recruitment** | **Number** |
| Through health visitors | 3 |
| From community organisations (including churches) | 10 |
| Snowballing | 6 |
| **Total** | **19** |

Although this study had intended to include all mothers of African descent (i.e. 1st generation[[7]](#footnote-8) or 2nd generation[[8]](#footnote-9)), only 1st generation African mothers were included. This may have been a result of the recruitment process (see section 3.5.4 B), as the majority of the mothers included in the study were recruited via a snowball sampling approach, increasing the likelihood of recruiting mothers with similar characteristics [183]. Health professionals were informed that both 1st and 2nd generation African mothers were eligible for inclusion in the study but only 1st generation mothers were referred to me. Perhaps the reduced population of African mothers in NE England as a whole may have impacted on the ability to identify and recruit 2nd generation African mothers into the study.

Three broad themes emerged from the data and have been described in detail. The themes are:

1. Information gathering and navigation
2. The breastfeeding culture of African mothers
3. Support Network

The broad themes have been divided into sub-themes to aid reading and understanding. Table 5.2 below shows the demographics and breastfeeding practices of the mothers interviewed.

Table 5.2: Demographics and breastfeeding practices of participant mothers

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant** | **Country of origin** | **Region of Africa** | **No of children** | **Age of children** | | **Length of UK residence** | **Country lived in prior to the UK/years** | **Education level** | **Breastfeeding practice** | | |
| **First** | **Last** | **Feeding practice** | **Stopped BF totally** | **Age of introducing solids** |
| Mother 1 | Uganda | East | 1 | N/A | 6 months | 5 years | Uganda | A level | BF and water (5 months) | 5 months | 6 months |
| Mother 2 | Malawi | South-east | 3 | 11 years | 9 months | 15 years | Malawi | High school | Mixed feeding (4 months) | 4 months | 6 months |
| Mother 3 | Uganda¥ | East | 2 | 3 years | 2 years | 17 years | Italy/ 3 years | Degree | EBF (4 months) | 6 months | 6 months |
| Mother 4 | Nigeria | West | 1 | N/A | 17 months | 4 years | Nigeria | Degree | EBF (4 months) | 6 months | 6 months |
| Mother 5 | Nigeria | West | 1 | N/A | 14 months | 1 year | USA/ 5years | Degree | EBF (7 months) | 14 months (ongoing) | 7 months |
| Mother 6 | Tanzania | East | 1 | N/A | 2 years | 9 years | Tanzania | Postgraduate | EBF (6 months) | 2 years | 8 months |
| Mother 7 | Nigeria | West | 1 | N/A | 2 years | 6 years | Nigeria | Postgraduate | EBF (6 months) | 13 months | 6 months |
| Mother 8 | Nigeria | West | 2 | 3 years | 13 months | 6 years | Nigeria | Degree | MF (12 months) | 12 months | 8 months |
| Mother 9 | Nigeria | West | 2 | 2 years | 1 month\* | 2 years | Nigeria | Degree | EBF (1 month ongoing) | N/A | N/A |
| Mother 10 | Nigeria | West | 4 | 16 years | 15 months | 4 years | Spain/17 years | Primary level | EBF (7 months) | 12 months | 7 months |
| Mother 11 | Cameroon | Central | 2 | 3 years | 1 year | 4years | Cameroon | Degree/ Professional course | EBF 6 months | 12 months (ongoing) | 6 months |
| Mother 12 | Cameroon | Central | 3 | 9 years | 2 years | 10 years | Cameroon | Postgraduate | BF and water (6 months) | 12 months | 6 months |
| Mother 13 | The Gambia | West | 1 | N/A | 6 months | 6 years | Sweden/ 3years | Currently studying for degree | MF (4 months) | 6 months (ongoing) | Not started |
| Mother 14 | Nigeria | West | 1 | N/A | 8 months | 1 year | Nigeria | Degree | EBF (6 months) | 12 months | 6 months |
| Mother 15 | Nigeria | West | 1 | N/A | 6 months | 2 years | Nigeria | Degree | MF (5 months) | 5 months | 6 months |
| Mother 16 | Togo | West | 2 | 2 years | 3 months | 2 years | Togo | Degree | EBF (6 months) | 12 months | 6 months |
| Mother 17 | Nigeria | West | 1 | N/A | 13 months | 3 years | Nigeria | Postgraduate | EBF (5 months) | 5 months | 6 months |
| Mother 18 | Ghana | West | 2 | 2 years | 13 months | 1 year | Ghana | Degree/ Professional course | EBF (6 months) | 13 months (ongoing) | 6 months |
| Mother 19 | Nigeria | West | 1 | N/A | 7 months | 6 months | Nigeria | Degree | EBF 4 months | 7 months | 6 months |

¥Mixed race mother (Australian father and Ugandan mother but grew up with mother in Uganda).

\*Realised during the interview that breastfeeding experience of first child was not in the UK. Mother agreed to be re-interviewed after infant was 6 months old but interviewer was unable to make contact thereafter. Only relevant information has been included in analysis.

## Theme 1: Information Gathering and Navigation

### Sources of information

For most participants, living in the UK provided them with access to more sources of information about breastfeeding than they would have had in their home countries. The sources of information included watching others breastfeed (observation), academic/educational platforms, health professionals’ advice via breastfeeding classes or one-to-one consultations, advice from friends and family, as well as through self-sought means such as books, leaflets and online. Information from health professionals was considered the least available in Africa. The information received from these different sources were either complementary or conflicting. Mothers described situations where they needed to carefully navigate the different information sources to arrive at a decision that they felt comfortable with. The various sources of information are described in detail in the following subsections beginning with the information mothers were exposed to during their childhood years as they observed other mothers breastfeed.

#### Observation

Mothers described the process of gathering information about breastfeeding as one that began during their childhood years when they had observed their mother and other mothers breastfeeding, particularly in their home countries.

“I’ve seen my aunties, my uncle’s wives, my sisters, so I’ve seen people breastfeeding from really early young age…but growing up I used to see like every mother is breastfeeding literally every person I know in Africa they’ve been breastfeeding”. (Mother 1)

“…way back when I was young, because our parents used to breastfeed my siblings.” (Mother 2)

“Since I was a kid you know that once a child is born that mothers breastfeed their children. That is when I started knowing about breastfeeding.” (Mother 9)

Without necessarily understanding fully what breastfeeding was about as a child, one mother described how she had mimicked the act of breastfeeding using her doll.

“Ah! … it’s been long like when we were little, and you know then we used to have like a doll that we’ll be saying that we’re breastfeeding, yeah I remember”. (Mother 8)

A few of the mothers further explained observing mothers breastfeed was not limited to their childhood years but as adults, they had watched people breastfeeding their infants whilst learning in the process.

“I suppose I’ve had lots of family around me so I’ve kind of seen family just breastfeed their kids…sort of church family friends when they were having kids just watching how they do it and learning from them.” (Mother 3)

“… and from my own experiences of seeing people, I’ll try the different things that I have seen first.” (Mother 6)

“I just see people breastfeeding babies so… yeah I see people breastfeeding, but I did not know the details.” (Mother 8)

However, two mothers explained that watching people breastfeeding gave them a false impression of what breastfeeding really entailed. They had developed the idea that breastfeeding was an easy process that required little or no training and simply entailed putting the baby to the breast. But soon after the birth of their infants, they realised that it wasn’t as easy as they thought, although this did not deter them from breastfeeding.

“I think it’s easy when you see other people doing it but it’s a very different experience when you do it yourself….” (Mother 3)

“I imagined that it was something easy, until I had my daughter and it’s not as easy as we think.” (Mother 11)

This perception of breastfeeding being easy is discussed further in the section ‘Breastfeeding culture’.

#### Health Professionals

Another major source of information for the mothers interviewed was from health professionals including health visitors, midwives, doctors and breastfeeding support teams. The mothers encountered these health professionals in different avenues such as breastfeeding classes, antenatal and postnatal consultations, or at community children’s centres such as Sure Start.

The information from health professionals particularly from breastfeeding classes was highly valued by most mothers. Mothers explained how they had learnt a lot about breastfeeding including the techniques of breastfeeding as they were previously not aware that breastfeeding required a technique to ensure it was convenient and stress-free for both the mother and the child. It was a surprise for them to learn that there were techniques to ensure a stress-free breastfeeding process.

“It was hard at first to be honest…because I thought you just put them on and that’s it… I thought it was ridiculous that people were taking breastfeeding classes but honestly it did, it was very helpful, I learnt a lot about all your like all your milk doesn’t come on right away and the black poop and all that stuff and yeah so it kind of told me what to expect, gave a brief overview, they covered everything.” (Mother 5)

“I didn’t know breastfeeding is something that you need to learn. I thought you just gave the baby the breast and that’s it… there’s actually a way of putting the baby for you to feel comfortable, with your back, and for the baby as well to be able to get as much milk without hurting you...” (Mother 11)

“I thought all you do is just oh just pop the baby on it’s fine but there’s actual an actual technique to it … you don’t end up stressed, the child doesn’t end up stressed…” (Mother 3)

When speaking of breastfeeding from their home countries, the mothers explained that this was not considered something that needed to be learnt. Mothers were expected to have gained the knowledge of breastfeeding, considering they would have had many opportunities to observe other mothers breastfeeding. It was assumed that every mother had the basic knowledge of how to breastfeed an infant and knew what to do when the baby was born.

“No, it’s considered as something that you need to know, like on your own.” (Mother 11)

“…the act is almost like a natural instinct that they expect you to get, have… mostly you’re expected to just know by, because people are very open, they take out their breasts and you see how it’s done.” (Mother 6)

“Back home, I think they leave it for nature to take its course. Maybe the professional just believe that because they live in that environment where everybody breastfeeds, therefore I don't need to tell you that you need to breastfeed again because your culture demands that you have to.” (Mother 12)

Similarly, the information and advice from health professionals in other situations were found beneficial to many of the mothers. One mother described how she continually received advice and encouragement from her health practitioners about exclusively breastfeeding her preterm infant.

“So the doctor advised me to feed him, breastfeed him when he was in special care… but one nurse just told me to focus, that I should just give him breast that it will make him grow fast and make him healthy… they [nurses] told me like that it’s difficult but they advise me to, that they would give me there’s a machine but I don’t know the name… Oh my god, because the nurse just told me that … don’t be tired, when you are doing it [expressing breastmilk] you will see that oh my God, it [breast milk] will keep coming.” (Mother 10)

#### Friends and Family

Many of the mothers who were interviewed reported that they received information and advice from their friends and/or relatives, particularly their mothers (infant’s grandmother).

“my family …obviously they encouraged me to do it.” (Mother 1)

“I remember that my mother used to tell me that the breastfeeding is the most important thing in life… she told me when I was getting married that the best thing I can do for my baby is to breastfeed…” (Mother 4)

“She [my friend] said it [EBF] really helps… their brain development and it makes them very smart…” (Mother 8)

#### Formal education

Three mothers referred to formal or academic sources as one of their sources of information about breastfeeding.

“…high school yeah. One of the courses, I can’t remember what course it is but one of the courses (Mother 7)

“it was the seminar we went about breastfeeding, World Organisation… breastfeeding seminar so they now told us the importance of EBF…” (Mother 4)

“I think from school. I studied child development… they say breastfed kids are more alert and you know they develop at a faster rate and stuff like that and so from school I learnt that.” (Mother 5)

#### Self-Sought information

Further to the information sources detailed above, books, leaflets, and the internet were additional sources of information cited by some of the mothers in this study. Many of the mothers described using either one or a combination of two or more of these mediums to seek out information that they had not received from any of the other sources mentioned above and particularly in instances where they were either struggling with some concepts or trying to gather more information about a particular situation.

“Just a bit on the maternity leaflets you get, there was a bit about that [breastfeeding]… fliers there encouraging mums to breastfeed” (Mother 11)

“I’ve read about it [breastfeeding] from … this website… you read about something you try to apply it in your situation and then some worked some didn’t… my husband is so curious about searching things, so he really searched [the internet] and we asked deeper….” (Mother 1)

“…according to the books I read… I didn’t use internet because I think the ones I have heard is enough for me, the leaflets in the hospital, they gave us as a pack to go through and rest of them” (Mother 4)

“… I had a baby and joined a bunch of mum groups online .... on Babycentre, I joined the breastfeeding group…you can see what people are posting about their experiences, or like say someone in my situation had a question, I’m like oh yeah I had that question too and just see what responses were given.” (Mother 5)

“…obviously there’s information out there… Google so everyone can find whatever they want… you start also researching or listening to the materials that they give you on the parenting courses … then you really start to learn about it.” (Mother 6)

### Navigating information sources

Owing to the availability of these many sources of information, the mothers had to prioritise the information they received and determine which one they thought worked best for their individual situation and which ones they felt most comfortable with. Sometimes, this meant that information from health professionals was valued more than that from their ‘experienced’ friends or family, and vice versa.

“I think I trust more the Health visitors.” (Mother 9)

“…other than seeing the people around me, again just the classes and the advice from my midwife, you know from the NHS; that was like the biggest thing for me.” (Mother 3)

One of the reasons for giving less priority to information from the infant’s grandmother described by one mother was the generational gap in the knowledge and experience of the grandmother compared with the knowledge provided by health visitors who according to the mother “*have the current advice*”.

“…my mum did it way back then, you know things change down the line, so I needed to take the bit of advice that she gave me on how she did but then also have the current advice as well. So I’d say quite a few things with the current advice were really helpful for example my mum will say oh you just need to do it because it’s good, and then I would have the midwife say oh you need to do it because, they’ll kind of give like a scientific reason behind it so that kind of made me think oh okay now I understand specifically why.” (Mother 3)

On the other hand, another mother explained that she was more interested in learning from the experience of other African mothers, as she was of the opinion that the health professionals in the UK could only provide her with an ‘*English way*’ of doing things and she was keen to adhere to the African traditions. Owing to this, she was completely dependent on advice received from friends who had had children and refused any advice from health professionals.

“…they [in hospital] usually give us a leaflet…but I just look at it like it’s English way, so I just listened to my friend, what she told me because she has two [children] already… I just listen to people that have got the experience… though my health visitor told me that I should introduce formula or give her some food … when I was eight months gone with Daughter 1… but because of this culture Africa thing… I said don’t worry, I’ll just continue till when she’s like one…” (Mother 8)

In some instances, health professionals were perceived as being untruthful in their promotion of breastfeeding, giving a false impression to mothers. This perception came from mothers who opined that health professionals did not give sufficient information about breastfeeding, particularly with respect to the potential difficulties that could arise, making breastfeeding look cool, easy and desirable. One mother in explaining this highlighted that:

“… they did say you lose weight when you are breastfeeding, or you burn calories, that was a lie… because I know they try and make it cool and say you lose weight when you’re breastfeeding, you’re burning all these calories…” (Mother 4).

Another mother explained that she found breastfeeding to be:

“a little bit harder than they [health professionals] make it out to seem… I always thought you whipped it down, and they latched on and that was it. I didn’t know about colic or sore nipples or mastitis or stuff like that.” (Mother 5).

One mother described her experience when helping out a friend, stating that the health professionals present breastfeeding as mechanical:

“… just like the friend I helped…she just was like already irritated about the whole process, so by the time I went there, I was like okay, just relax, it’s gonna happen, it’s not very mechanical as they [health professionals] put it, just relax.” (Mother 6)

While some mothers deferred to the information received from health professionals, and others felt more comfortable with information from their friends and family, some mothers preferred to combine advice from different sources, adhering to some advice from their own mothers (particularly with respect to foods to eat to increase milk supply) whilst heeding to some of the instructions from health professionals, as well as looking up information for themselves. However, most mothers sought some kind of reassurance or confirmation that they were doing the right thing for their infant.

“…I needed to take the bit of advice that she gave me on how she did but then also have you know the current advice as well.” (Mother 3)

“…I’ve read it online, my health visitors talked to me about it…” (Mother 1)

“…in terms of the advice I will get like from my mother and from my own experiences of seeing people, I’ll try the different things that I have seen first.” (Mother 6)

Despite the challenges of navigating different information sources, the majority of the mothers breastfed exclusively for between four and six months (See Table 5.2). However, the mothers also discussed a new generation of mothers back in their home countries and their changing attitudes towards breastfeeding. The mothers explained that although breastfeeding is considered a norm in Africa and most mothers will breastfeed, the younger generation of mothers are beginning to turn to formula milk to feed their infants as opposed to the long-held tradition of breastfeeding.

“The change is that less and less women want to breastfeed and the reason they give is because they think they want to go back to work.” (Mother 11)

“I think Africans as well, I’ll like to say that they’re upgrading. I think it used to be a must in Africa, however small milk you have, you had to breastfeed but now it’s becoming a choice as well although it is not that popular yet in Africa, but some people are choosing not to breastfeed their babies” (Mother 1)

“…now these days some people if they don’t want to breastfeed they’ll just say oh I’m not gonna breastfeed but back then with women with our mothers yeah they knew they had to breastfeed.” (Mother 2)

“I think they [younger generation] still feel that it’s a process that they will have to go through but also they feel that there is options out there for instance there’s a lot of people that use a lot of formula food, even back home now, a lot of bottle feeding and formula feeding as well on top of that, but at least the first six months, most people still concentrate on doing that [breastfeeding] and then after that then they know they’ve got that freedom of using …” (Mother 6)

“I’ve heard few mothers say that. Like they can breastfeed for three months and stop and then give [formula].” (Mother 7)

The reasons stated for this shift to formula feeding among younger mothers included the need to return to work, fashion trends/what is in vogue, and physical appearance.

“I mean like on social media I will see most, some women, some women some women bottle feeding their babies formula because I think they probably think it’s the cool thing to do.” (Mother 5)

“I think that… technologies have built so many things that can support a child to grow without a breastfeeding so it’s no longer in vogue like in our mother generation… They say it [breastfeeding] makes their breast to fall down easily or something like that and also some of them say it one of the girl’s opinions say that it cages you not to have your freedom.” (Mother 4)

“Convenience I think convenience... because I think the maternity leave they give back home is for three months, so mothers will want to just do it and then carry on with bottle feeding because I think it’s easier for them… back home they will say if you breastfeed for that long, it makes your boobs sag… like it ruins your shape of breast…” (Mother 7)

“…she just had one month so she had to go back to work. So, the only thing she could do is introduce the baby milk on the same day she had to go back to work. But there are ways of managing it if you really wanted to… Fortunately, in the UK the leave is quite long...” (Mother 11)

Two mothers attributed this changed perception of breastfeeding among the new generation of African mothers to an influence of the Western world. This influence arises either because African mothers who have settled in Western countries have increased access to information and media content which influences their perception of breastfeeding, or because Western countries, in a bid to give aid to African countries against malnutrition have advertised formula milk as a better option.

“… in the western world or in the UK, where you breastfeed and with all the information out there because people are able to access it, some people tend not to breastfeed, or maybe because they are wary of their body changes. Custom wise, in Africa, people don't think like that…” (Mother 12).

“I know with some of the… aid, … like all these non- profit, non-governmental [NGOs] that go there [Africa] and just bring formulas and they try and push formula on some of them…for malnutrition … rather than educate them on how to breastfeed properly or increase their supply, or rather than feeding the mother so that she can produce enough breastmilk to feed her child.” (Mother 4)

However, two mothers were of the opinion that the media, particularly celebrities on social media, encouraged more mothers to breastfeed by putting up posts and pictures of breastfeeding, making it the trendier thing to do.

“it’s like a new fashion trend now because seeing most of the celebrities on Instagram, like social media taking breastfeeding as a unique thing to them so I believe younger mums [Western mums] … will want to give in to breastfeeding.” (Mother 7)

“…you see on social media people they’re breastfeeding. There’s this other model she was doing her work all the pictures and stuff yeah and the baby was ready to be breastfed. She stopped all that and she sat down where she was, and she was in the middle of the road and she was breastfeeding, and she put the picture on Instagram to show people how breastfeeding is important.” (Mother 2)

One mother explained it as a two-way information system where people visit the UK from Africa particularly for study and then return to their home countries with the information they have gathered whilst in the UK, which does not encourage breastfeeding.

“…so we have some… who have come to the UK who are studying to be midwives and doctors and nurses but are going back home. So, they’re obviously taking what they’ve learnt here back home because sometimes there can be a pressure of you have to breastfeed your child till they’re three or four years old but they’re probably introducing this new way that … if the child doesn’t want to then it’s fine and if they want to then great.” (Mother 3)

The availability of various sources of information played a major part in determining how African mothers living in the UK respond to breastfeeding and the practices they adopt. For some mothers, access to lots of information had a positive impact on their breastfeeding practice, in that they were more able to deal with challenges. However, for some others, it created a false idea of what breastfeeding really entailed, resulting in mothers losing confidence, feeling under pressure and seeking reassurance to deal with challenges or conflicting information (more details are provided under theme 2, page 134, Section 5.3.3.4). Being able to carefully navigate the available information and identify the best practices for every individual situation the mothers found themselves in, became a key attribute every mother needed to possess in order to be successful at breastfeeding. For some mothers, this meant leaving behind traditional ways and adhering to ‘modern’ practices while others deferred to their traditional knowledge. Modern knowledge refers to the knowledge that the mothers acquired from evidence-based sources such as health professionals who possess up-to-date information about the best practice regarding breastfeeding. However, those that were most successful at breastfeeding appear to be those that were able to find the balance between both traditional and modern practices. No singular source of information was given more credibility over another. More importantly, it was not as much about the information available to the mothers but about their intentions prior to having their babies. Despite the availability of information, the mothers had made up their minds prior to conception, or at conception, what breastfeeding practices they were going to adopt and most of them remained determined to follow them through despite the challenges encountered. The availability of information only made dealing with the challenges easier.

## Theme 2: Breastfeeding Culture

Breastfeeding culture in this study has been used to collectively refer to beliefs, attitudes and practices. This theme describes the attitudes, behaviour and practices of the mothers towards breastfeeding. It includes a description of how the mothers perceived breastfeeding, their knowledge of breastfeeding, how their infants were fed, and other practices around infant feeding such as their perception of breastfeeding in public and dietary needs for breastfeeding mothers.

### Initiation and duration of breastfeeding.

#### Breastfeeding initiation

All the mothers in this study initiated breastfeeding and fed colostrum to their infants. There was no report on discarding colostrum. Most mothers practiced EBF for four months. Details of breastfeeding practices is provided in Table 5.2. Mothers who were not exclusively breastfeeding in the first six months had either introduced water and/or formula milk to their infants. The mothers who introduced water to their infants did so because they perceived that their infant needed water.

“I had to introduce water because she was having lots of hiccups and I heard water helps so I gave her water and it did help” (Mother 1)

“I gave them water because I don't believe in the idea that you breastfeed the child for six months or more without giving them water, especially when the child lived in water for nine months... If I leave the baby with my husband …I expect that even if the baby feels hungry, he can at least give- even if it's water to just keep him going or her going until I get back.” (Mother 12)

On the other hand, mothers who introduced formula milk had done so for various reasons. Some mothers experienced delayed onset to breast milk production during the initial days to weeks after birth and therefore had to introduce formula milk hesitantly.

“…in the beginning, I didn’t [breastfeed] because she came early. Yes, and I think there wasn’t any milk coming from my breast… until, like around two weeks. Then … she prefers the bottle. So, the only thing we do now is express into the bottle … for me not to be able to breastfeed her at the beginning. I felt really bad.” (Mother 13)

“… it [breast milk] didn’t come immediately… I gave her formula… So when I got home, it started coming out, though I was expressing because I could not place her head… I gave her formula at night, then during the day I tried as much as possible to breastfeed her.” (Mother 15)

“…because when he was born he was he was immediately taken to the ICU, so I wasn’t able to breastfeed, yeah so they gave they gave him formula…” (Mother 2)

One mother introduced formula milk because she felt that her milk supply was insufficient to satisfy her baby.

“…but she was feeling even hungry because the milk didn’t come out, it comes out after a day or two so I just said oh let me give her formula” (Mother 2)

A mother of two children had decided after her first child that she was not going to exclusively breastfeed any other children because she did not have a positive experience exclusively breastfeeding her first child, having fed breastmilk as the major source of food for one year.

“I have it in my mind that if I have another child I would not try breastmilk, it will be for a short time. I may give her like for one year, but I would not do breastmilk only” (Mother 8)

#### Breastfeeding duration

Breastfeeding duration ranged from four months to two years although most mothers had intended to breastfeed for nine months to one year. The mothers that had stopped breastfeeding after 12 months but before two years felt that that was a good time to stop breastfeeding.

“Yeah but to me if a child is eating so why are you breastfeeding for two years” (Mother 8)

“Just for the fact that she’s growing into a toddler, I don’t think I should be breastfeeding until…I just wanted her to stop” (Mother 7)

The major reason cited for discontinuing breastfeeding before 12 months of age was that the infant had refused the breastmilk particularly because the infants no longer received satisfaction from it and formula milk appeared to be a more satisfactory option.

“At five months I don’t know what happened she completely stopped” (Mother 1)

“…once he discovered the powder milk ... all he wanted [was] the powder milk…” (Mother 3)

“…if you give him he won’t have that interest, he won’t suck it he will just like dust it [brush it aside]…” (Mother 4)

Some mothers cited the weather conditions as a reason the infant may have discontinued breastfeeding, indicating that *“…it’s a very different temperature and everything is very different like back home you know it’s warm, it’s much more chilled and relaxed, here it’s cold and … here personally I found you’re having to run into a corner and find somewhere warm because you want the child to enjoy the experience and you want to enjoy the experience because you’re freezing…” (Mother 3)*

One mother cited returning to work as a reason to have stopped breastfeeding explaining that upon returning to work she was required to be away from home for a couple of days at a time and when she returned, her infant refused the breastmilk.

“I went to work so … not at home for three days. Then she was taking formula so by the time I came back … I gave her … it was like I was forcing her, so I didn’t bother her” (Mother 17)

One mother who stopped breastfeeding at four months explained that her milk production stopped suddenly and after several failed techniques to try to regain the milk supply, she resorted to feeding her infant with formula milk and received encouragement from family, friends and health professionals who explained that such instances were not uncommon.

“I was expecting to breastfeed but unfortunately the milk stopped coming when she was four months… the midwife came, the health visitor came… I phoned my relatives… they said sometimes it happens… just continue with the formula” (Mother 2)

An interesting thing to note is that none of the mothers who had discontinued breastfeeding before 12 months had stopped willingly but had either stopped because the infant refused the milk, or their milk production had stopped. However, all mothers who had exclusively breastfed for at least six months continued breastfeeding for at least 12 months and did not report infant’s refusal of milk or ceased milk supply. This may be related to a personal conviction and determination to continue breastfeeding for a certain period of time. It could also be that the continued stimulation of breastmilk production for six months increased the likelihood of prolonged production of breast milk. Additionally, it could be attributed to the length of time the infant had spent having only breastmilk. An infant who tasted only breastmilk for six months may be more likely to desire the taste of breastmilk for longer.

#### Complementary feeding/ Introducing solids

The mothers started complementary feeding after six months of age. The most common first foods cited were pureed foods such as fruits, vegetables, yoghurts or baby cereals such as *Cerelac[[9]](#footnote-10),* which is common to the African community. Other mothers introduced home-made traditional foods such as *eba[[10]](#footnote-11), fufu[[11]](#footnote-12), semolina, or mashed potatoes.* Only two mothers mentioned giving their infants pre-made foods in jars. The choice of first foods was similar among mothers who introduced solids to their infants before six months.

“With my children, all the babies' bottled food, they never had any of it… the custom or tradition or belief of what happened back home came. When I went to solids, I knew I needed to give them mashed potato, the sorts of things they fed me with, like mashed potato, fufu, semolina, those sorts of things, just plain... They need to give them bread and just ovaltine, no sugar in it. Those were the things that I knew were good”. (Mother 12)

“I started doing the food that I eat, I give her a pinch to have a taste and then I gave her chicken to hold and try … But between the six and the eight months it’s mostly baby food, like blending fruits, blending banana, all of that.” (Mother 11)

“I started preparing my own potatoes, carrots with fish and African food like make semo[[12]](#footnote-13) with fish…” (Mother 8)

“…we are still trying things and she’s not a good eater. I’ve started doing like baby rice, baby porridge and I do potatoes and vegetables, mash them…” (Mother 1)

"The first thing I started giving to him is infant milk, I give him… normal food like cerelac, baby food … and also… pap[[13]](#footnote-14) … so even up to today, he’s still taking his pap.” (Mother 4)

### Knowledge of breastfeeding

#### Knowledge of EBF

Only a few mothers were aware of what EBF meant, most of whom had acquired this knowledge from formal settings such as university, seminars or workplaces. These mothers described EBF as feeding an infant with nothing else but breastmilk for the first six months of life and were aware that an exclusively breastfed baby would not require additional water.

“My idea is you breastfeed with nothing else. You don't give any other alternative formula or food or anything, nothing.” (Mother 12)

“Exclusive breastfeeding is a breastfeeding by which a mother… engage in for six months duration…your breastmilk should be the milk in the morning in the afternoon in the night, also in water, everything, just know it as your full-time job.” (Mother 4)

Other mothers were not aware of what EBF meant but when it was explained to them, they recounted that they had previously heard about it or had fed their babies exclusively. One mother succinctly put it:

“I didn’t know much about that [EBF] until I had a baby and joined a bunch of mum groups … I mean I just thought that breastfeeding was breastfeeding” (Mother 5)

However, knowledge of EBF did not necessarily translate into practice as some mothers who appropriately defined EBF did not necessarily exclusively breastfeed. Similarly, some mothers who could not explain what EBF meant had exclusively breastfed their infants. However, all the mothers were aware of the benefits of breastfeeding, as described below.

#### Awareness of the benefits of breastfeeding

The mothers were able to describe the health, nutritional and other benefits of breastfeeding to the infant including brain development, immunity, reduction of ill health, and infant-mother bonding, as well as benefits to the mother. The most common benefits cited by the mothers in this study were infant-mother bonding and brain development.

“it just really helps a lot to do with the baby’s brain to do with bonding with your child.” (mother 3)

“it really helps because… you have this intimacy with you and your child and apart from that it develops their brain” (Mother 8)

“breastfeeding is very important for the baby, for the development, for their growth, even for their brain; some say it makes them more intelligent… and the breastfeeding keeps the bond between mum and child” (Mother 11)

“breastfeeding is good for babies in terms of brain development.” (Mother 1)

“breastmilk increases… intellectual ability for a child …any child that suck the breast milk has a sense of belonging…” (Mother 4)

The mothers also highlighted that breastfeeding provides improved immunity for the infant leading to reduced ill-health and visits to hospitals and strong, healthy babies:

“some say their immune system is stronger than other bottle-fed babies…” (Mother 11)

“…they tend not to go to hospital… their immune system becomes stronger, may be able to fight certain viruses naturally, rather than you rushing to the hospital all the time.” (Mother 12)

“It also helps them not to be very sick. There’s an immunity protecting children who are breastfed” (Mother 9)

One mother indicated that it could serve as some form of medication:

“I think it's like medication. I can remember when the baby was young and had soreness, maybe some rashes, I would just put a drop there and a few days later it disappeared.” (Mother 12)

The benefits of breastfeeding to the mother were equally highlighted such as reduction in the risk of cancer, weight loss and reduction in abdominal size.

“…in a mother’s health it also reduces the calories, it reduces weight, it also help to reduce cancer” (Mother 4)

“…if you don’t breastfeed you can have breast cancer” (Mother 11)

While some mothers believed that breastfeeding helped to reduce weight, one mother experienced a gain in weight. She explained that she felt hungrier while breastfeeding and ate much more, leading to an increase in weight.

“I was always hungry, always hungry… you actually do have to increase your intake… so yeah besides gaining a lot of weight, I will blame it on breastfeeding… I wasn’t big at all, so I was like I’ll stay skinny forever, I was just always hungry” (M 5)

Other benefits of breastfeeding were discussed such as the economic effect of breastfeeding, indicating that it is cheaper than formula feeding and helps to save cost. The mothers described breastmilk as “affordable” (Mother 11), “free” (Mother 1, Mother 11), “cost effective” (Mother 5), and “economical” (Mother 9).One mother succinctly described the cost effectiveness of breastfeeding especially as an immigrant in the UK commenting that, *“…as we are not eligible for all the benefits and child discounts they offer, I have to give what I have. It is available free and helps to save money so if I cannot get the ones they offer because I am not eligible, I will use what I have.” (Mother 4)*

Among many of the mothers interviewed, breastfeeding was equally considered an easier and less stressful option compared with formula feeding, which required washing and sterilising bottles, boiling and cooling water to mix the milk and having to pack and carry many items when going out. The mothers explained that with breastfeeding, the milk was usually readily available and warm when needed.

“…to me it’s really good instead of getting up, making food, you just lie down and just throw the thing [breast]… yes the stress, I think it’s easier …” (Mother 8)

“…for me it was easier in terms of maybe when I’m going out with her, I don’t have to pack things because I’m kind of lazy…” (Mother 7)

Furthermore, mothers described the naturalness of breastmilk explaining that breast milk is a natural product while formula milk is artificially produced and so cannot be as good as the natural breastmilk. This served as a major motivation for one mother who explained that it took her body nine months to prepare food for her child and so she has to feed the child that food.

“that one [formula milk] is manmade and this one [breast milk] is a natural made” (Mother 4)

“my major motive for breastfeeding was the fact that I've carried them and now my body has prepared food for them. I should give them that food” (Mother 12)

This idea that breastfeeding is natural, formed one of the main perceptions of breastfeeding among the mothers. The next sub-theme discusses the perception and attitudes of the mothers towards breastfeeding and will explain this factor in more detail.

### Perception of breastfeeding

#### Cultural beliefs around breastfeeding

Mothers had different perceptions about breastfeeding with respect to the act and practice of breastfeeding, duration of breastfeeding, and dietary needs of the breastfeeding mother. One main perception of breastfeeding among the mothers was that breastfeeding is a norm especially in the African culture. They perceived breastfeeding as a natural part of motherhood, and an experience every mother should look forward to.

“…instead of giving them something that is you know artificially made or added nutrition, but you can give straight from your mum.” (Mother 6)

“I would say in this area that we live in where we have all the superficial food and things like that, breastfeeding is natural.” (Mother 12)

“…it just felt natural that a mother is supposed to breastfeed unless otherwise yeah if you have conditions…” (Mother 2)

“…all I know is that when the woman gives birth to a child, naturally the breast milk starts coming out from the woman’s breast for the baby to suck on…” (Mother 9)

Among the mothers who were interviewed, breastfeeding was not considered an option to choose from according to their cultural perception of breastfeeding from their home countries, but rather, compulsory. Whereas in the UK, breastfeeding was perceived by the mothers as a choice. Hence, the mothers expressed how surprised they were when asked by their midwives what their decision was, whether to breastfeed or not.

“while I was growing up I thought it’s a must it’s a must thing that you have to breastfeed your baby” (Mother 1)

“…if you choose not to breastfeed here they don’t question you they say oh it’s your choice [yeah] they’ll give you all the options…but in Africa, you have to breastfeed whether you like it or not it’s a must (Mother 2)

“Growing up, I knew that breastfeeding, that's the only food that …babies are meant to have. Therefore, there were no other alternatives or other options for you, so you are forced to breastfeed.” (Mother 12)

“I find it [being asked] weird because I thought as a mother, that’s the only way you should feed your child, for a start. You can’t give birth to the child, and then say, “No, she’s just going to have to have a bottle.” Because I grew up where you have to breastfeed, not a bottle.” (Mother 16)

The only acceptable reasons for not breastfeeding in Africa according to the mothers were health or medical reasons and death of the mother.

“it should be a necessity except otherwise… say mother cannot breastfeed because she is sick or in the case where the mum dies while giving birth or things like that” (Mother 11)

“a mother is supposed to breastfeed unless otherwise, if you have conditions, some people they produce certain kind of milk that is harmful to the baby.” (Mother 2)

In addition to this perception that breastfeeding is a norm and natural, the mothers described cultural practices that depicted their strong beliefs that every child should be breastfed. In particular, the mothers described situations where an infant was breastfed by another woman who was not the infant’s mother, known as wet nursing. The mothers explained this as a communal way to ensure every child gets the best and was not necessarily linked to incidents where the mother could not breastfeed the infant.

“I know sometimes other woman can breastfeed another woman’s child, like they say it takes the village to raise a child.” (Mother 5)

“But my mum stopped, she didn’t breastfeed my brother. Luckily for her, her sister was breastfeeding at that same time, so she was breastfeeding her child and my brother at the [same time].” (Mother 13)

“…in Uganda … we have what we call … breastfeeding maids… if a mother for example needed to go to work, then you actually had someone at home within the family, they all breastfed each other’s children … so I grew up with that... it’s just very relaxed… the village that I grew up in everyone just chipped in and mucked in and helped breastfeed each other’s children.” (Mother 3)

However, there were concerns about health risks and a lack of knowledge about these risks may have been detrimental to the health of the baby. Mothers who had underlying health conditions were at risk of passing such ill health to the breastfed infant.

“…my mum was a bit more strict because at the time there’s obviously things like HIV AIDs, so you had to be very very careful because she was a nurse, she had to make sure that the person wasn’t sick…” (Mother 3)

None of the mothers who were interviewed in this study reported using a wet nurse. Other cultural practices highlighted by the mothers include the duration of breastfeeding and the diet for breastfeeding mothers.

#### Perceived duration for breastfeeding

There was a consensus among the mothers who were interviewed that mothers in Africa engaged in prolonged breastfeeding for at least one year. Most of the mothers agreed that infants were breastfed for long durations in their home countries.

“Back in Cameroon people breastfeed really long… the norm generally is one year.” (Mother 11)

“…definitely over a year, maybe till like three four, probably late into toddlerhood.” (Mother 5)

“…they say they breastfeed kids until … the baby comes and says mummy I want yunyun [breast].” (Mother 1)

“Back home we rarely got the formula, the baby had to be breastfed for almost sometimes three years.” (Mother 2)

“… in Uganda from what I saw as well when I was younger is that you just, well it looks like you just keep breastfeeding them until they come off themselves (Mother 3)

One mother compared her perception of the duration of breastfeeding in her home country with her perception of breastfeeding duration in the UK, explaining that in the UK, it appears that infants are expected to be independent of breastmilk at a certain age of about two or three years.

“...when my mum had my brother … I was about four years old and I still used to ask for milk, breastfeeding milk … so as soon as she’s finished breastfeeding she said I was not shy … she used to say okay come, you finish the milk … whereas I think sometimes in the UK there is this thing that oh … you need to stop breastfeeding by this age, and they need to be on solids and they need to be independent … by maybe three, two three years old.” (Mother 3)

#### Preferred diet for breastfeeding mother

The perception of a breastfeeding diet among all the mothers who were interviewed was similar as they expressed that new mothers need to eat a lot of food, particularly food rich in fat to aid milk production. They highlighted certain kinds of food considered most appropriate for breastfeeding mothers in order to produce sufficient milk for the infant. It was agreed that liquified foods such as porridge and soup was more appropriate compared to solid foods such as sandwiches for the production of breast milk.

“…you have to eat specific food that will help you produce more milk, specific food that produces more milk in Africa … certain beans will produce more milk …certain drinks will produce more milk … lentils …, the Guinness mighty malt drink” (Mother 2)

“…so it’s like porridge but millet porridge and so she used to put a bit of lemon and a tiny bit of sugar and that was something that really helped my breastmilk, … and then lemon grass tea, … lentil soup, lentil soup really helped. Lots of water, fluids and healthy foods really but I would say…millet porridge … my mum actually made it for one of my friends here in the UK and it actually works and the lentil soup as well, so that really worked for her (Mother 3)

“…a lot of ‘efo’ [vegetables], ‘ogi’ [pap or corn meal], I drank lots of tea and also few fatty foods because apparently breast milk has lots of fat.” (Mother 5)

“… you have to be hydrated and have enough fluids and something that’s hot as well helps produce the milk… bowl of soup or mashed soft bananas or food like that. Most of it is like porridges, mashed bananas and potatoes, things like that and then hot stuff” (Mother 6)

“Before you eat in the morning, once you wake up, they give you this large cup of tea with milo, then there’s something they mix with brandy, with herbs and all that, they said it helps to make you lactate, so I think you have to eat very well.” (Mother 7)

“Soup, kind of palm nut soup, groundnut soup, they have this belief that if you eat banana and groundnuts, their groundnuts has so much fat, even if you have to express the milk you see that it’s so oily, so rich, and they know that the baby at that age needs a lot of fats.” (Mother 18)

One mother commented on the kind of food provided in UK hospitals compared to the kinds of foods given to new mothers in her home country, Cameroon.

“…we promote obviously foods that will help you get the milk in the first place… we believe in having like softer foods for the mother, em whereas here I think it’s a bit different, like in the hospital I got like sandwich and small little tub of juice and em yes it’s going to produce milk but not as much…” (Mother 6)

#### Perception of breastfeeding versus reality

Owing to the cultural perception around breastfeeding discussed above, the mothers had certain expectations about the breastfeeding process that did not translate into what they experienced in reality. The most common expectation among the mothers was that because breastfeeding is a natural process, it should be easy and straightforward, without challenges.

“I think it’s easy when you see other people doing it but it’s a very different experience when you do it yourself, you look at them and … oh I can do that and then you suddenly go through childbirth, you got through all these changes in your body and then you think okay this isn’t as easy as I thought it’s going to be” (Mother 3)

Therefore, when faced with any challenge, the mothers lost their confidence and became anxious. They felt under pressure, blamed themselves for the challenges they faced and assumed that they were doing something wrong. Hence, they needed reassurance that they were doing the right thing and guidance/support on what techniques or practices to adopt.

“Yeah it was [difficult] from the beginning it was really. Emotionally, it was because I could sit down and cry thinking what’s wrong with the baby, why is she not feeding or what am I not doing right. So, I don’t know how many times I was on the phone with the health visitor or how many times she came in a week, [it] was emotionally hard, physically hard you know, it was hard to be honest. Yeah it was hard” (Mother 1)

“I felt like I did something wrong, I felt like why isn’t she you know, I went through all these breastfeeding classes and they’ll talk about how they can latch straight on and they might not and so that obviously helped but I think part of me was a bit like oh am I doing it wrong,… when I was seeing her being fed with a syringe, I was like ‘is this normal’ … but actually the midwives reassured me and said oh this is normal… once they taste it they know … and you’re still bonding with your child.” (Mother 3)

One of the mothers who had experienced some difficulty with breastfeeding explained that African mothers often feel pressured when breastfeeding does not go as planned, which in turn may impact on the health of both the mother and the child. She explained that it was unnecessary for mothers to put themselves under such pressure especially since formula milk is available as an alternative to breastfeeding.

“I don’t think everyone can breastfeed, I think sometimes parents or mothers put the pressure on themselves when it doesn’t happen and feel like arrrgggh you know cos we’ve also got things like powder milk that sort of really helps. I think there is this culture that breastfeeding is the best and it is. But for you as a parent that maybe, you can’t breastfeed, it’s important that you don’t put that pressure on yourself because then you put pressure on the child as well, it’s what comes best for the for the child, some people can naturally breastfeed, some people can’t” (Mother 3)

However, mothers who had been pre-informed of the possible challenges of breastfeeding, either in breastfeeding classes or from friends reported that they found breastfeeding easier than they had expected. One mother explained that she found breastfeeding so easy and thinks that it may have been that way because she had been told about all the difficulties and was expecting it to be a very challenging process. Hence, she may have trivialised the challenges she faced as they did not match up to what she was expecting*.*

“Yes, but I think it was that good because I didn’t expect it to be that good.” (Mother 11)

Mothers with more than one child (multiparous) had different opinions about their experience of breastfeeding compared with primiparous (only one child) mothers. They described the influence that previous experiences may have on breastfeeding decisions and experiences with subsequent children. For some, a previous experience positively influenced the breastfeeding decision of subsequent children.

“Well, because he was my third I was able to cope better. I believe that with other mothers, if it's their first, the soreness could put them off because it's quite painful, and then to keep giving to your child.” (Mother 12).

“My last one breastfeeding was normal I’d say, like you know experience is a great teacher, so I knew what I was gonna do, it was …I think the more you have children the more you know, the more your experience the more you know what’s the best for them (Mother 2)

Some other mothers however reported negatively on the influence previous breastfeeding experiences had on subsequent children. For one mother, breastfeeding turned out to be more stressful because her older child was only a few months older than the second child and she felt she needed to always hurry breastfeeding in order to attend to the older child.

“I think when you have a second child, it [breastfeeding] can become less likeable just because you’ve got the first one and it’s almost like a chore to breastfeed the second one, so you really have to push yourself… I had like a screaming toddler around so breastfeeding was a bit stressful… because I felt the pressure of oh quick quick quick, I have to feed you quickly and then deal with… attend to her.” (Mother 3)

Another mother explained that her experience with exclusively breastfeeding her first child was challenging, which impacted on her breastfeeding decision for her younger child.

“…my first child, I was told to do exclusive because it’s very good, so I didn’t give her any other food... so it’s really really hard and then I tried to introduce milk for her when she was like eight months, but she wouldn’t take it… I have it in my mind that if I have another child I would not try breastmilk, it will be for a short time. I may give her like for one year, but I would not do breastmilk only, I’ll introduce some other food.” (Mother 8)

Although many of the mothers eventually considered breastfeeding to be easier than formula feeding once they had got the hang of it and settled into a routine, the process of putting the baby to the breast and establishing breastfeeding[[14]](#footnote-15) was not as easy as they had imagined. Most mothers encountered some challenges during the early stages of breastfeeding and required the knowledge of certain skills and techniques to overcome the challenges. The challenges encountered were however common to mothers irrespective of ethnic origin and therefore have not been discussed here but include challenges such as delayed onset of milk production, mastitis, latching difficulties, positioning amongst others. The societal response to breastfeeding in the UK also posed a challenge to many of the mothers especially with respect to breastfeeding in public and is discussed in detail in the following paragraphs.

### Breastfeeding in public

In response to the question, “what has your experience been breastfeeding in public?” some of the mothers expressed that they felt confident and comfortable about breastfeeding in public.

“…I didn’t know there are places where you could go… I just thought she’s hungry, so I just sat in the middle of the shops… I got her out of the buggy… I just took it out … I just think it’s normal, the baby wants milk, or she wants to eat she should eat. It’s I don’t find anything embarrassing about it.” (Mother 1)

“…I was just sitting in church and I took my boob out feeling confident…” (Mother 2)

“everywhere I have been, I go, I sit, I breastfeed in public. I don't mind.’ (Mother 12)

“…very confident… I can breastfeed my child anywhere…everywhere because it’s the right of my child.” (Mother 4)

However, some mothers seemed unsure about what was an acceptable practice for breastfeeding in public in the UK. One mother believed that there is a law against breastfeeding in public in the UK, as she had been informed by her husband. Another mother felt self-conscious until she observed other people breastfeeding in public, which helped her confidence.

“Why I didn’t do it [breastfeed in public] is because of the law of the country… the law of privacy… the dignity and respect, you have to respect each other so sometimes it’s not always good because you don’t know whether the second person close to you may like such a thing.” (Mother 4)

“…at first, I was like people will start looking at me, but I see people doing it… even white people I saw them breastfeeding outside without even covering or anything, so I said, why won’t I?” (Mother 8)

Others felt the need to cover themselves up with a cloth or apron whilst breastfeeding in public or to use a breastfeeding toilet/room. They often did this in consideration of people around them who may be watching, and not particularly for the comfort of the breastfeeding mother.

We had like breastfeeding aprons so I was never shy… and I think it wasn’t necessarily for me, it was more for the people around me because they found it uncomfortable, particularly men… whereas for me I’m like it’s fine, I’m breastfeeding my child, there’s not an issue with this, so I did it more for the respect of the country that I’m in I suppose… I think sometimes to keep the peace, I put my apron on” (Mother 3)

“I didn’t get any weird uncomfortable stares. I think for the first few months I was covering myself trying to be polite but after a while I was just like whatever, he’s eating, if it bothers you look away.” (Mother 5)

“I don’t think I will breastfeed in an open place but if I have to, maybe I’ll cover or use something to cover up…” (Mother 7)

The mothers compared the practice in the UK with that in Africa, explaining that in Africa, it was unnecessary and unusual to cover up whilst breastfeeding as breastfeeding was seen as a normal practice. Any onlooker or passer-by seeing a mother breastfeed considered it a natural practice and the duty of a mother and therefore did not give any awkward stares or negative attitudes.

“In my culture… they didn’t have like aprons or anything, they just did it out there. I think here it’s a bit more reserved.” (Mother 3)

“…people that side [in Africa] are used to that, it’s like it’s a normal organ on your body especially when you’re a mother it’s fine you can just [breastfeed]…” (Mother 6)

“…I don’t think it’s similar to the way we do it back home… breastfeeding back home, you can breastfeed wherever you want, you’re not conscious about who is looking. But here I think in the UK, you just have to go to a private place to do it if you want to” (Mother 7)

“Like anywhere you are; in a taxi, you could be walking and give the baby your breast; it’s up to you. Unlike here [UK] where you need to go and hide in a room or something to breastfeed the baby, there [Africa] anywhere” (Mother 11)

“…people here tend to shy about breastfeeding in public whereas back home where I come from you’ll be in a taxi…. you’ll be in the market breastfeed, in a bus, in a shop, it does not matter where you are… [but] it’s not that comfortable to everyone in the UK so people I think people like their privacy or something.” (Mother 1)

“I hardly see them you know having a breastfeeding outside like in our own country” (Mother 4)

They further explained that refusal to breastfeed a crying or uncomfortable baby whilst in public in Africa resulted in being scolded in some instances.

“if you’re in a taxi, that’s the worst one, because the taxi driver is like, “madam, Give that baby the booby [breast]. No be your own [it’s not meant for you] (Mother 11)

“Sometimes you go to places [in the UK], you have to ask, “Is it okay if I breastfeed?” In Gambia, no… They will tell [you], “Breastfeed immediately” …they would even try to fight you to breastfeed.” (Mother 13)

On the contrary, breastfeeding in public in the UK sometimes led to uncomfortable disapproving stares or confrontations. Two mothers described instances where they had experienced such confrontation, although both of these mothers have lived in the UK for over ten years. One of these mothers had this experience nine years ago when she had her first child and reported that she hadn’t had any such experience again since then. The second mother, having lived in the UK for 17 years may equally have had this experience many years ago and may not be reflective of the current position of the UK on breastfeeding in public.

“I remember once it happened at the bank… I sat there, and the baby was really crying, so I just thought, "Well, I will just sit there in reception." Then one lady came and said, "Well, this is meant for customers …" I said, "What do you mean, customers? Am I not a customer? Is it because I'm breastfeeding the baby? If that is what you are insinuating, I will put in a claim for discrimination on the grounds of breastfeeding because I have every right to sit here, breastfeed the child and then leave, provided I'm not a nuisance. I'm not, am I? Have any of the customers complained? Even if they do, I have the same right as they do." Then the lady apologised that that's not what she meant or something.” (Mother 12)

“I think that’s the vibe that they give because there was once I saw a woman breastfeed her child in public and a couple of people including women walked past and were like you need to cover up, you know you can’t display yourself, but then we also had then there was another older woman who walked into the conversation and she was like it’s fine, it’s natural, there’s nothing wrong with that, so some people are fine some people are not.” (Mother 3)

Having to either look for a designated breastfeeding space to breastfeed or use a breastfeeding apron while in public in the UK was considered a challenge by many of the mothers who were interviewed. However, this did not deter the mothers from breastfeeding.

“…what I found a bit challenging was maybe sometimes when I’m on the road like she wants to eat, she’s crying, I have to look for somewhere that is a bit okay for me to breastfeed, I can’t breastfeed on the road like that unlike maybe when I’m bottle feeding I can just put it and I’m going so I just have to look for somewhere.” (Mother 7)

“the disadvantage of this breastfeeding is like when you go out and you’re doing exclusive, so you have to start looking for where to sit down and breastfeed. If they’re on bottle like they’re taking formula, you can easily just make it and give it to them…even when you’re trying to cover up, like my first daughter… she’ll just pull everything.” (Mother 8)

Although breastfeeding in Africa did not require privacy, mothers who had their first experiences of breastfeeding in the UK before going back to their home countries appeared to have imbibed the practice of covering up whilst breastfeeding in public and they found it difficult to openly breastfeed when they visited Africa.

“I got used to breastfeeding here for the first stage where I have to go into the toilet to breastfeed, but when I went back home, sometimes I’m breastfeeding and I’ll see…a male standing in front of me I just feel like he’s not supposed to be around me until my mum told me that this is Africa, they don’t even care …, feel free, so I took like few weeks thereabout to get used to men walking around, seeing me breastfeed. (Mother 7)

“…so I had to map out if I want to breastfeed where will I breastfeed, and also the breastfeeding cover, so I have that as well, because… here you can’t just [breastfeed] or people will be like “what is happening?” so when I went back home, I was a bit cautious in that sense and if I put that back home as well, it’s like “what’s the big deal?” … and it’s like hot as well so it’s like ‘are you sure the baby is having enough air there?’. So, it’s like you know, it was a cultural change like it’s fine I could just breastfeed, nobody no one will really [care]…” (Mother 6)

The prevalent culture in the UK – covering up to breastfeed – had influenced the mothers’ infant feeding behaviours such that they adjusted their practices from what they were familiar with, to the prevalent practice within the UK. They, therefore, experienced difficulty adopting the practices from their home countries as they attempted to integrate themselves into the UK environment. In turn, the more integrated they got to the UK culture, the more difficult it was to adapt to their home cultures when they returned to their countries of origin.

Despite the view of the mothers that breastfeeding in public in the UK could be challenging because it was not perceived to be widely acceptable in public, the mothers were deeply pleased with the breastfeeding facilities made available for breastfeeding in public in the UK. They were appreciative of breastfeeding friendly places located in public places for people who required the privacy to breastfeed. Comparisons were made with other countries where the mothers had had the experience of breastfeeding and having breastfeeding-friendly facilities in public places was highlighted as being helpful.

“they’ve increased places where people can go and breastfeed and things so that’s also helpful.” (Mother 6)

“I think they do a better job here in the UK because when you go out to those shopping centres they have nursing rooms, they don’t have that in the US, so it was absolutely easy to nurse here, even out in public…, in the US I will have to go to a toilet if I wanted privacy, go to a stinky toilet…” (Mother 5)

“…while I was here it was it was easier for me… they’ve got places where you can nurse, like nursing toilets and stuff but back home [Africa] you don’t get to see that comfort…” (Mother 7)

“If you’re out and about, they create space where you can breastfeed your child easily and you don’t feel ashamed… space in a toilet where there’s a feeding room…even on the trains sometimes… breastfeeding is allowed… even though we say we’re hiding in those places… there are comfortable chairs where you can sit to breastfeed your child.” (Mother 11)

The breastfeeding culture of the mothers who were interviewed in this study was quite positive. The mothers perceived breastfeeding as a natural and normal practice that every mother should engage in for the benefit of their infants. For many of the mothers, breastfeeding was perceived as easy, but their experience of breastfeeding proved otherwise. Upon encountering challenges whilst trying to establish breastfeeding, their perception of breastfeeding began to change and some of the mothers felt that it should not be made compulsory. In particular, mothers that had strong perceptions that breastfeeding was going to be an easy process needed more support and reassurance than mothers who were expecting some difficulty. Nevertheless, all the mothers initiated breastfeeding and continued breastfeeding for at least four months or until their breast milk supply ceased or the infant refused the breastmilk.

More importantly, it was evident that African mothers have a strong breastfeeding culture from their home countries, which was quite different from what they had experienced in the UK. The mothers explained that breastfeeding was very laid back in their home countries and there was no required age that breastfeeding needed to have stopped, whereas in the UK, there was a presumed age when breastfeeding is expected to have ceased. Additionally, the mothers discussed the cultural difference in the diet fed to breastfeeding mothers. While breastfeeding mothers were required to have a special diet to enhance milk production in their home countries, breastfeeding mothers were fed the same meal as the average person in the UK. Furthermore, the mothers drew upon the cultural difference in public breastfeeding in the UK and in their home countries. While breastfeeding did not require any privacy in their home countries and they would have preferred this attitude, they felt the need to seek privacy whilst breastfeeding in the UK to avoid uncomfortable and judgemental stares. Nevertheless, the mothers described their breastfeeding experience in the UK as easy and enjoyable.

## Theme 3: Support Network

This theme describes how mothers perceived their support network in the UK, and the importance of having adequate support while breastfeeding. The mothers referred to the various sources of support they had received such as health professionals, family and friends, which included church friends. Three main kinds of support were described by the mothers namely: technical support referring to the support around the technicalities of breastfeeding, emotional support referring to encouragement and advice around breastfeeding, and practical support referring to support to carry out other duties to create sufficient time for breastfeeding. All the mothers interviewed described instances where they had received one or more of these forms of support, and how they valued the different forms of support. This is detailed in the following paragraphs.

### Support from health professionals - technical and emotional

Health professionals played a vital role in supporting mothers throughout their breastfeeding period. According to the mothers who were interviewed, the health professionals were mostly important in providing psychological, emotional and technical support during breastfeeding. This involved encouraging, educating, and actively addressing mental concerns. One mother summarised it in saying,

“the support is just like mentoring you, not physical, not financial support, not any other support.” (Mother 4)

Health professionals were mostly perceived as vital in providing technical support to mothers, showing them the practicalities involved in breastfeeding and how to go about it with ease. As part of this support, mothers made reference to the practical information they had received from breastfeeding classes, as well as those obtained after delivery.

“… I had the breastfeeding support team come over and show me what to do and get comfortable…they show you the process with the dolls…” (Mother 11)

“…the midwife came she gave me more information, or trying to be supportive on how I should do it and what to expect and that the baby would wake me up a few times at night…” (Mother 12)

“The nurse was practically assisting me to make the baby latch well on the breast, putting the baby well, in the right position…” (Mother 13)

“I got all the support even when the milk stopped coming the midwife came, the health visitor came, just to just to give me support…” (Mother 2)

However, in offering technical support, the health professionals were actively offering emotional support as well. The mothers described instances where the health professionals were available to reassure and encourage, and sometimes it was just *“…to say “hello” and to check on me to make sure I was okay” (Mother 12)*.

“… [Health professionals] kept giving me advice here and there, making me know if I had any challenges they were there, I could call. So even though there was no ‘home’, like relative and all, I still was comfortable because they kept assuring me that everything was all right.” (Mother 18)

“… I think it was just reassurance, a lot of reassurance… so when she [health visitor] would come around, she would look at my first child and say okay, how is she reacting to the situation because suddenly there’s another child…she really talked me through the different stages and what it could look like…” (Mother 3)

Although the support received from health professionals was not particular to African mothers, the mothers related it to their experience of health professionals’ support in their home counties and explained that in Africa, health professionals provided little or no support to new mothers throughout the breastfeeding process.

“Back home, I think they leave it for nature to take its course. Maybe the professional just believe that because they live in that environment where everybody breastfeeds, therefore I don't need to tell you that you need to breastfeed again because your culture demands that you have to.” (Mother 12)

“[In Africa] … nobody would call you, nobody would encourage you, nobody would ask you, “How is it going?” You have to learn it. Whether you like it or not, you have to learn it...you have to encourage yourself” (Mother 15)

“We don’t have the support that we have here…like coming to show you how to breastfeed and getting comfortable with it…but we have support in other ways…” (Mother 11)

One of the mothers, in explaining this difference in health professionals’ support between the UK and Cameroon, emphasised the need for health professionals’ support in educating mothers in Cameroon about taking some time after birth to recover, as well as following mothers up for at least the initial six months after birth.

“I do think if the professionals could maybe, when they [mothers] are leaving hospital, just tell them that it's good to breastfeed their child. Then try to come for a little survey maybe for that six months, popping into the clinics six times every month and, "Just update us on how you are doing.”” (Mother 12)

However, support from health professionals appeared to be most appreciated in situations where the mother lacked other sources of support, as the health professionals helped to fill the gap. This was reflected in a comment made by one of the mothers.

“If I want to compare the support, I would say I have little or none…but looking at the environment that we are in, with limited resources, I would say I did [have sufficient support] because the midwife was very good. The health visitor was great. They came whenever they needed to, to say, "Hello," and to check on me to make sure I was okay.” (Mother 12)

### Support from family – practical, emotional and technical

Family was equally an important source of support for the mothers in this study. In particular, the mothers explained how their own mothers (infants’ grandmother) and their partners (infants’ father) played major roles in supporting them throughout the breastfeeding period. The support received from family members was mostly emotional and practical involving helping out with household chores, helping to carry and soothe the baby when necessary, and helping to feed infant expressed breastmilk to give the mother some time to rest. Family members, particularly those who had some knowledge of nursing were also able to provide technical support. While some mothers were more interested in the emotional support from family members, “*just to be there for you… talking while you’re breastfeeding, [so] you’re not thinking about it much… cheering you up” (Mother 2)*, the majority of the mothers highlighted the practical and technical support they received from their family, as it translated into an easier breastfeeding experience for them.

“my mum was the one who practically took over the house. The cleaning, and cooking, and everything” (Mother 14)

“… my husband… he’ll take her out of the room especially when I was in much pain. Even at night he’ll… tell me just forget about her… he’ll look after her and give me my space and my time… my sisters… my friends… they just like bathing her or cooking, trying to feed her, if she refused it they will take her, give me to time to rest” (Mother 1)

“…my mum was here, so she was giving her own advice “if you do this it will increase your supply”… I will pump, my mum will feed so I can rest or my partner will feed so I can rest, trying to feed me, just stuffing my face with food and water” (Mother 5)

The mothers compared their experience of support during breastfeeding with what is obtainable in Africa, indicating that there is a better practical support system in Africa and having such support made breastfeeding much easier and more prevalent in Africa than in the UK.

“Yes of course, Nigeria is where you have people that are supportive. Everybody was around, almost all my sisters wanted to stay, mother-in-law, mum. People helped…” (Mother 9)

“…we have support in other ways, like there’s always family to support you, help you with chores, for the first three months while you breastfeed. And I can say out of 100, you can find only two or three people that will not breastfeed.” (Mother 11)

“being in Africa, all the aunties came, so everybody came or was there for one year and things like that…There were people there… just lie in bed and then get up in the morning. They'd bring her breakfast, lunch, dinner, so she wasn't really doing anything” (Mother 12)

The mothers therefore expressed their desire for more practical support in the UK, particularly mothers who were in more challenging situations such as having more than one child or having busier schedules either because they were in school and unable to take time off or because they were unable to get the full benefit of the one-year maternity leave offered in the UK and had to return to work sooner. Mothers who had received practical support expressed their appreciation for the support and commented on how relieved they felt with the support with comments like “*it was great support*” (Mother 3) and “*it’s really amazing*” (Mother 1), while mothers who did not have practical support expressed how much they had desired it and the difference it may have made to their breastfeeding experience.

“…the sleepless nights, sometimes you get it continuously, but if you have support it would have been nice… it was challenging because sometimes I'd go to bed at 3am or 4 in the morning, but I need to be up by 6 or 7 to get the other two ready for school…if my mum was here or my mother-in-law and things like that, it would have made it much easier because on the days like that I'm sure she would say, "I will have the baby. You go and rest."” (Mother 12)

“It might have been easier because if I had support, if she’s sleeping then I can have time to eat, then, I [will] have enough milk … it would be easy.” (Mother 8)

One mother of two children however explained that although she desired some practical support from her husband, she was able to manage well on her own because she was not working and had a lot of free time on her hands. Comparing this to her breastfeeding experience in Africa, she explained that she needed more support with breastfeeding her first child while in Ghana because she not only had to return to work early but also had other engagements that took her out of her house very frequently. Additionally, the management of caesarean births in the UK was much better than in Ghana which made it possible for her to cope with the demand of household chores and breastfeeding without requiring external support.

“… unfortunately, here my partner was not doing it [helping], it was like me, me, me… really because I’m not working here… it doesn't make much difference whether you have support or not. Maybe I will give thanks to whatever medication or help I got from the hospital because after my CS in Ghana…the sore was so painful… you were given so many instructions…so it means you really needed someone… but here… I was just home, home, I could do my household chores and still take care of my baby without any support or any help from anyone, and I didn't even feel frustrated or anything, I was very fine.” (Mother 18)

### Support from friends – emotional and practical support

The role of friends in providing support to the mothers was equally discussed with many of the mothers indicating that their friends offered practical and emotional support, similar to support from family. Support from friends was particularly important among mothers who did not have family members around or whose family had only visited for a short time and had to return. In such instances, the friends played the role of family. This corresponds with a suggestion made by one of the mothers who said that:

“… [if] you haven’t got family around… you can go look for a new family and it’s important that you do otherwise things like post-natal depression and especially when you are so isolated with just you and a child it becomes such a lonely, lonely place” (Mother 3).

In describing the practical support received from friends, mothers referred to the assistance their friends provided with cooking, bathing the infant and help with transportation amongst other things, as well as just being available and asking if they *“needed help with anything.” (Mother 11, Mother 17)*

“…for my friend, she was always there to make sure I was feeding the baby properly and eating well… she cooked for me for three months, I didn’t stand there in the kitchen until the evening.” (Mother 11)

“…my best friend… from my pregnancy… wouldn't even let me touch a needle… will clean, cook for my husband, do everything… when I had the baby… even when I wanted to put clothes in the washing machine… wouldn't let me do it… even take her away for a while so I can get rest.” (Mother 13)

“…my friend was the one taking me around, so she didn’t have to go on buses and all that.” (Mother 14)

Similarly, the mothers described the emotional support they received from friends, especially in offering encouragement, sharing their experiences, offering breastfeeding tips and just being available when needed.

“… just sharing their experience, and calming me down, they mostly just share their experience, this is what you should do, eat this, eat that, just recommendations …” (Mother 5)

“The support I received from friends was not, like, support, they're just telling me it’s okay, just telling me how breastfeeding is good, or I should not give up.” (Mother 15)

As part of the support received from friends, mothers who belonged to a church group referred to the role their church played in offering both practical and emotional support. The mothers highlighted the role of their church friends in preparing meals for them and their families, as well as paying frequent visits, being there to chat with mothers and encouraging them.

“… if I was struggling that they [church members] would just come round and kind of take over once I’ve finished breastfeeding, they would take the baby off me… they’ll actually talk to me about it, they’ll say how are you feeling, explain how you’re feeling… and give me a couple of hours to sleep, I felt better with myself… and I could see my child in a different light rather than arrggh you’re stressing me out… [church] people cook meals for the family, so actually that took a lot of pressure off me because that was something I was worried [about]…” (Mother 3)

“my church members… really did well… They came, see us for about a week and a half, everyday they will come different people. They’d come and visit, be here with us talk to us…” (Mother 1)

### Pressure from support circle

Support from all the different sources sometimes translated into pressure for mothers. Some mothers described the pressure they experienced with health professionals vehemently trying to encourage breastfeeding. In one situation, a mother explained that:

“in hospital they… support but sometimes… it’s too much of like ensuring that because someone is already on breastfeeding… if someone really is not confident… it can give them a bit of overwhelming experience.” (Mother 6).

At other times, the mothers felt suffocated by the constant barraging from some health professionals regarding their progress with breastfeeding. This was especially the case with the breastfeeding support groups where mothers felt that they were *“very helpful” (Mother 15)* but persistent to a fault.

“… the breastfeeding group were very persistent, like when I say persistent, I mean per-sis-tent. They will text me, if I didn’t answer text, get the letter through the mail, call a few times a day, they called me like three times a week… I had to be the one to initiate a cut off from them” (Mother 5)

“… I was even the one tired… They kept calling me, calling me.” (Mother 15)

Two of the mothers suggested that this may be due to the low prevalence of breastfeeding in the UK, making health professionals ardent on seeing mothers breastfeed.

“it was like so much so much pressure like this person has agreed to breastfeed, let’s make sure she breastfeeds” (Mother 6)

“they are used to people not breastfeeding so…[they] follow-up” (Mother 5).

Similarly, some mothers experienced pressure from members of their family to breastfeed. Pressure from family members was attributed to the long-standing breastfeeding tradition among Africans, such that there was little or no understanding of medical or health reasons why a mother may not breastfeed her infant.

“…it was frustrating because my sister-in-law thought that I didn’t want to breastfeed. They were judging me. Like, whenever I say, “Oh, this milk is still not coming,” they’ll be like, “You just don’t want to breastfeed because you’re thinking of going to uni, or you still want to be a young girl… Pressure everywhere, yes. Anyone that comes in, the first thing that’ll do, “Why are you not breastfeeding her?”…some of them were just visiting to see if I’m breastfeeding” (Mother 13)

“when I stopped [breastfeeding] at nine months…she [infant’s grandmother] was like “no, you need to do it for longer because its good for the child, its good for you” … I did feel the pressure to, and I tried, I tried, I did put her on but … she just didn’t want it…” (Mother 3)

There was only one report of a mum who felt obliged to continue breastfeeding for one year due to advice from her friend. She explained that she did not feed her infant any solids for the first one year of life and only gave breastmilk and water because a friend consistently encouraged her that that was the best thing for the infant.

“… she [friend] was telling me [to exclusively breastfeed] for one year… [I’m] asking her “ah! I need to stop this thing, because it’s like she’s sucking too much and I’m getting weak and sometimes even when I went out, I had to buy booze, like energy drink… Health visitor said give other food… but I want to stick to I said I’m almost there, is it not one year?” (Mother 8)

In general, the mothers described the effect of having a good support network from family, friends and health professionals on their breastfeeding experience. Whilst some mothers found the practical support more beneficial, others referred to the benefits they received from emotional and/or technical support.

“Yes, it made it a lot easier because the only thing I did was breastfeed, because I didn’t have work; she made my food…prepare my bath and massage…making breakfast…bathing the baby she is making sure I want food or drink…” (Mother 11)

“…so I had that [support] otherwise I think if I didn’t get people around me I don’t know… it brought me back to life, to know that there is someone I could rely on, or I could go into a room if I decided like all day to sleep, I could leave her how tiny she was, I could trust them with her it’s really amazing, it was good” (Mother 1)

“I didn’t really have any support from anyone other than the hospital, the hospital calling me… I was really happy about it… all the support I got were good and nice…” (Mother 15)

Having a wholesome and reliable support system appeared to be very important among African mothers in order to have a positive breastfeeding experience. From the information provided by the mothers in this study, no form of support was more important than the other, but mothers mostly desired emotional and technical support to have a pleasant breastfeeding experience. Although having practical support was considered important in some instances, this was mostly evident among mothers who experienced additional challenges apart from those merely relating to having a new baby. Although the support described here is not peculiar to African mothers, the mothers in this study showed how influential the presence or absence of support may be on their breastfeeding experience. And even in the absence of family and/or friends to offer support, the mothers reported how beneficial they found the support and reassurance received from health professionals, who provided both emotional and technical support. This may specifically be as a result of the notion among the mothers that breastfeeding is compulsory for every mother, hence, the mothers felt that they could not decide to stop breastfeeding even if it got too challenging and therefore required some form of support or reassurance to carry on with breastfeeding. Finally, it is evident that for African mothers living in the UK, support did not have to be practical or from family and friends to be valued. The mothers only desired a sense of accomplishment and a feeling of assurance that they were doing the best that they could for their infants.

# Chapter 6: Findings from Qualitative Interviews with Health Professionals

## Chapter Introduction

This chapter presents the themes that emerged from interviews with health professionals regarding their perception of breastfeeding among African mothers and their experiences of supporting African mothers living in the UK with breastfeeding. A total of 18 health professionals were interviewed of the 19 that were approached for recruitment. One health professional was not interviewed because it was not possible to find a suitable time for the interview during the period of the research. Table 6.1 shows the sources of recruiting health professionals.

Table 6.1: Number and sources of health professionals recruited into the study

|  |  |
| --- | --- |
| **Method of Recruitment** | **Number** |
| Drop-in sessions | 9 |
| Direct contact | 5 |
| Snowballing | 4 |
| **Total** | **18** |

Ten of the interviewed health professionals were based in the community and visited mothers in their homes, and eight were based in the hospital. Of the community-based health professionals, eight were health visitors who supported mothers within the first eight months after birth, and two were nursery nurses who supported mothers from six months post-partum and onwards. Of the hospital- based health professionals, three were infant feeding specialist nurses on the Special Care Baby Unit (SCBU), three were transitional care nursery nurses who cared for non-vulnerable babies usually over 34 weeks old infants (mostly babies who had been in the SCBU and required additional support before being discharged home), and two were postnatal ward nurses who supported mothers whose infants required no extra care after birth.

All of the health professionals working in these various capacities had a minimum of two years’ working experience with the maximum being 16 years, and had experience supporting mothers with infant feeding in different capacities. The majority of the health professionals had had minimal experience with African mothers possibly due to the low population of Africans within the region, but they were able to describe their experiences from the few African mothers they had been in contact with. Two themes emerged from the interviews as described below. These themes are:

1. Perception of the breastfeeding culture of African mothers
2. Perception of the breastfeeding support network for African mothers

The themes have been broken down into sub-themes within each section to aid understanding.

## Theme 1: Perception of the Breastfeeding Culture of African Mothers

Breastfeeding culture in this context has been used to describe beliefs, attitudes and practices. This theme describes the perception of health professionals about how African mothers perceive breastfeeding, their cultural beliefs and practices towards breastfeeding, as well as the attitudes of African mothers to breastfeeding in the UK. This theme has been categorised into three subthemes:

1. Naturalness of breastfeeding/ Breastfeeding is natural for the African mother;
2. The cultural practices of breastfeeding among African mothers;
3. The attitudes of African mothers to breastfeeding in public

### Naturalness of breastfeeding

Majority of the health professionals who were interviewed described African mothers as having a *“positive mindset”* and being *“natural”* at breastfeeding.

“African women just tend to have a positive mindset that this [breastfeeding] is a natural thing that is going to happen.” (HP14)

“It’s very natural to African mums to breastfeed… for this group of mums it’s more natural than maybe in other cultures.” (HP8)

“…they’ve [African mothers] all wanted to breastfeed and been very positive about it, not sort of even, “well I’m thinking about it”, they’ve all definitely wanted to breastfeed and then they do breastfeed when their baby is here” (HP1)

In describing the naturalness of breastfeeding among African mothers, the health professionals explained that African mothers, irrespective of their age, had a lot of knowledge about breastfeeding, latching and positioning, as well as recognising cues from infants. They explained that African mothers barely experienced difficulty breastfeeding, and often required little or no support/tutoring.

“I do find with African women it just seems to come quite naturally. They just naturally tend to be better breast-feeders. The babies tend to just go on, and they don’t find any difficulty.” (HP15)

“I find from the African mums, they need very little support. Actually, it appeared to come quite natural to them. It’s not very often I have to assess and show them how to position or anything like that the baby. It all appears just quite natural.” (HP10)

“I found that whatever the age, it didn’t matter the age, very young mums would just know the cues straightaway and just pick the baby up… I didn’t have to talk about positioning, she just knew the position… I think because she was so skilled at it” (HP1)

“On the whole, I’d say most black African mothers do breastfeed and have very few problems with it, because it’s the norm.” (HP8)

A few health professionals attributed the absence of difficulty to being more relaxed about breastfeeding and letting nature take its course.

“I think because they’re relaxed about it…he [baby] seems to latch on very easily.” (HP1)

“I feel they're very laid back. They don't worry about it. They just assume that's normal…they just know that their milk is going to come in eventually” (HP 14)

Therefore, the health professionals were often more laid back in offering support to this group of mothers, assuming that the mothers were less likely to experience difficulties. One health professional in explaining her attitude when visiting an African mother stated that:

“if I’m going to do a visit and I know it’s a black African woman, I pretty much have already kind of decided that she’s probably going to be a breast feeder… the black African community, from my experience, is not the community that I would worry about in terms of breastfeeding. The women seem to be quite positive.” (HP2).

Similarly, a hospital-based nurse described a situation where there was an assumption that an African mother would breastfeed her infants but that was not the case.

“…we just presumed, which we shouldn’t do, we just thought that she would breastfeed. I think she had six children, and she had twin girls, and she was bottle feeding those twins.” (HP15)

Hence, it is possible that in some instances, some need for additional support among African mothers may have been missed. One health professional realising that the natural response to breastfeeding among African mothers may have impacted on the level of support offered to these mothers commented that, *“I feel like we do take it for granted a bit, that these mums are fine. I feel a bit guilty now that I'm sitting, talking.” (HP3)*

One health professional however, disagreed with the opinion that African mothers were natural at breastfeeding and expressed that it was probably just a perception and an expectation from people that African mothers would naturally breastfeed.

“…some of us feel that perhaps, African mothers may be more prone to breastfeed… but actually thinking about it, I don’t think I saw all African mothers breastfeed their babies… I just didn’t feel like there was a huge difference.” (HP13)

Upon further discussion though, the health professional revealed that she hadn’t had much experience with African mothers and in the few cases she had experienced, there was either some uncertainty about whether the mothers had actually fed their infants with formula milk or expressed breast milk.

“I thought it was bottles, but either/or…I thought they were all bottles. I might be wrong because I didn’t look into it specifically…” (HP13)

Further to discussing the naturalness of breastfeeding among African mothers, all but one health professional (HP13) agreed that most African mothers exclusively breastfed their infants for six months or longer before introducing solids.

“…African mothers I find exclusively breastfeed. They haven’t given a supplement, not even initially in the first few days where maybe the mum’s milk isn’t coming in very well and they start a supplement, I don’t find that, they all exclusively breastfeed.” (HP1)

“The majority of them would exclusively breastfeed… they will still continue to breastfeed once they start to wean them from six months.” (HP10)

“I think that if they were left to their own devices they would just exclusively breastfeed but be more laid back…” (HP14)

“I do tend to find that the majority tend to breastfeed, exclusively breastfeed. Unless, obviously, for medical reasons we may have suggested that they need to do additional top-ups. So, that sometimes does happen, but the majority of the time, from experience, it’s been exclusively breastfeeding.” (HP15)

“…but our African mums tend to exclusively breastfeed.” (HP 3)

However, the health professionals recognised African mothers who did not exclusively breastfeed their infants and discussed the circumstances that resulted in the decision not to exclusively breastfeed. In many instances, it was the decision of the mother not to exclusively breastfeed, mainly due to an inability to cope with multiple demands, particularly among mothers who had other children that needed to be cared for.

“We do have some black African mums who may choose to top up with a formula feed… I do have one mum, actually, who I can think of, who has got another four children. And she’s a single mum and she has to travel quite a distance to and from school, so she breastfeeds less...” (HP8)

“…I think she had six children, and she had twin girls, and she was bottle feeding those twins.” (HP 15)

“…there was a set of twins, but she decided that she would mix feed because she had five other children at home. There were deciding factors, so she was mixed feeding, but she had breastfed her other children. I think if there weren't so many children.” (HP14)

“I have got one woman that mixed fed, but she was on her fourth baby and there was a small gap. We worked through why she had to do that. Her husband had gone back to uni.” (HP3)

“I had one mum who’s in hospital so that caused some problems, so because of the health issues with the baby, I don’t think she was able to do that [exclusively breastfeed] all the time. But no I think they all breastfed.” (HP18)

In some other instances, this decision was the result of a medical or health concern, either with the mother or the infant, in which case the health professionals may recommend supplementing infant’s food with formula milk. However, the health professionals reported that African mothers were usually reluctant to offer their infants formula milk.

“Yes, one case I can think of, there was HIV, so that’s a reason.” (HP 13)

“There's blood-borne virus and there's methadone programmes and stuff like that. I have met African women, but it's not just them. It's broad.” (HP14)

“They [African mothers] just don’t think about bottle feeding… except in a case of if there are allergies in the family, if they think the baby’s going to be allergic, which usually quite quickly that’s evident. Otherwise, it would just be mainly [breastfeeding]” (HP6)

“Yes, so I have got one at the minute who’s finding it difficult to breastfeed. Although it was because of a tongue tie, actually, and she was finding it difficult, so she was then giving the bottle, but she was quite reluctant to because she really wanted to breastfeed.” (HP7)

“Unless, obviously, for medical reasons we [health professionals] may have suggested that they need to do additional top-ups... If the baby’s not ready to breastfeed, or it’s a small baby, or it’s had low sugar, things like that. Sometimes that can interfere with it [breastfeeding], but generally I find that African women just get on with it.” (HP15)

### Cultural practices of African mothers

Health professionals identified a few cultural practices among African mothers, most of which were centred around the process of weaning their infants. Although health professionals agreed that African mothers mostly use the right weaning foods, feeding infants with their family foods rather than buying foods in jars and packets, they highlighted that most African mothers fed their infants with a specific cereal called *Cerelac*, which was considered age-inappropriate by the health professionals.

“Rather than buying jars and packets, which we advise not to. They’re more likely to give family foods, which is what we would recommend.” (HP8)

“There are foods, cereal based foods, like Cerelac, that are on the shelves, which some black African and Asian families will buy and use… I think there’s something, traditionally or culturally, around those foods on the shelf that parents feel that they need to give…” (HP2)

“I think sometimes they’ll give things like Cerelac or something like that…” (HP18)

More importantly, feeding infants with *Cerelac* from a bottle as opposed to using a spoon was the concern shared by one health professional.

“Sometimes, we have to overcome some cultural ideas about weaning that people are used to, and I think the most common one is adding solids to a bottle and giving them to a child… Cerelac, that’s quite common, celerac into the bottle.” (HP8)

In addition, health professionals identified that African mothers were more likely to overfeed their infants after weaning, and this overfeeding was associated with feeding too much milk. In some instances, it was perceived as a desire for bigger babies among African mothers and a means to make the infant strong and healthy;

“I think I have found a high number of children whose weight is very high when they become a toddler... it’s because when they’ve weaned them on cow’s milk they give them a lot of milk as well as food … they’re giving them too much milk because they think they need the milk to make them strong… So they’re more likely to be overweight … because they think the baby should be fatter, because that is a sign of health, a fat baby.” (HP8)

“They seem to like chunky babies… they want chunky babies, they do… some of them are disappointed when you show them and they’re following the line lovely, “Oh no, but why aren’t they bigger? Why haven’t they put on more?” (HP7).

In some other instances, the health professionals perceived over-feeding as being the result of the ease African mothers felt with breastfeeding.

“…sometimes some of the babies can become quite large. So, potentially being over-fed. So maybe… that breastfeeding is so easy... they just breastfeed…not such a worry when they’re being just breastfed, but then the breastfeeding continues, and the baby then starts to eat food, and … the breastfeeding actually doesn’t reduce, and then you have babies who are very large.” (HP2)

In comparison with other ethnic groups, health professionals explained that while overfeeding may occur at any stage among infants born to women of other ethnic groups owing to feeding the infant with formula milk, infants born to African mothers usually became overfed after being weaned usually from feeding too much breastmilk. The health professionals suggested that African mothers were less likely to have overweight babies during the first six months of life because they were more likely to exclusively breastfeed their infants for the first six months, and infants are less likely to be overfed from breastfeeding only.

“I suppose because they’re the breast feeders. I’m aware of lots of overweight babies who are from other ethnic backgrounds, who are not necessarily being breastfed. So it could be breast or formula with other groups, but I think because the black African mums are primarily breastfeeding, it would be the breast milk with that group…” (HP2)

### The attitudes of African mothers to breastfeeding in public

Majority of the health professionals reported that African mothers usually had no concerns breastfeeding in public. Some highlighted their experiences observing African mothers breastfeed their infants comfortably in the presence of health professionals and family members, without hesitation or consideration of being watched.

“They’re [African mothers] all happy for me to watch them express, some other cultures aren’t quite as happy. I’ve found they’re quite happy for me to start them off expressing and don’t have any issues.” (HP12)

“African mums seem much more able to feed freely in front of me as well, whereas some of my Asian mums really don't want to feed in front of [me], even though they know what we do.” (HP3)

“…it seems as though they’re quite happy and open to just breastfeed with their family around. Whereas with the British women I do tend to find that they want the privacy… but from experience I know the African women are quite happy to feed.” (HP15)

Others referred to the information they had gathered w the mothers had shared with them regarding breastfeeding in public. These mothers were said to emphasise the need of their infants over the perception of on-lookers.

“…I haven’t found that [resistance to breastfeeding in public] among black African mums, not at all. They just readily pick the baby up and put him to the breast.” (HP1)

“,,,we’ve got a lot of Asian Muslim mums and they’ve got major issues with that [breastfeeding in pubic] … With the African mums, I’m not sure they’re that concerned about it, they haven’t talked about that. They just do it.” (HP18)

“I think they’re very confident with it [breastfeeding in public] and don’t bat an eyelid. Because you do get some that are straight away, “No, we don’t …” but black African mums do tend to be just like, “Don’t care.” … it’s just, “I’m feeding my baby.” (HP7)

However, one health professional highlighted that some African mothers preferred to cover themselves or find a secluded space to breastfeed when outdoors.

“So, breastfeeding in public, we talk to mums about it, they’re quite happy to do it. They’ll say, “Oh, no, that’s not a problem. I go to this place,” or, “I took something,” there’s all sorts of shawls and scarfs, and that. Yes, so, with my African mums, I haven’t had any say, “Oh, I'm not going to do it in public. I'll take a bottle,” but with our Asian mums, that tends to be the case, that they would use a bottle in public.” (HP6)

This may have been particularly true among Muslim African mothers. Two health professionals who had more contact with Muslim African mothers highlighted that the Muslim mothers were less willing to breastfeed in public due to their religious beliefs and were therefore more likely to mix feed.

“…But of course you have Muslim black African women and you have Christian black African women, so actually… because there are some different… with their religion. I don’t see so many, but there are some black African women and they would not be breastfeeding in public… it does affect their breastfeeding, they get less breastmilk.” (HP8)

“…well, they [Muslim African mothers] end up mixed feeding straight away, bottle-feeding and breastfeeding…” (HP7)

In summary**,** the health professionals perceived African mothers to be “natural” at breastfeeding requiring little or no technical support or tutoring. They believed and tagged African mothers as the breast feeders indicating that African mothers improved breastfeeding data in some areas.

“…our statistics for the West Road are good because of these African mums.” (HP3).

Although there were instances where African mothers were reported not to have exclusively breastfed for six months, most of the health professionals agreed that most African mothers would exclusively breastfeed for six months. However, a marked difference was observed between the feeding practices of Christian African mothers and Muslim African mothers especially with respect to breastfeeding in public, where Muslim mothers were less willing to breastfeed in public causing them to practice mixed feeding.

This perception that African mothers are great breast feeders resulted in the health professionals adopting a more relaxed approach and possibly less attentive when attending to African mothers. This was in fact apparent during the interviews as health professionals quite often slipped into discussing the general population of mothers when asked specific questions about African mothers. This may have been due to very limited experience with African mothers as a result of the low proportion of African mothers within the region. However, there is equally a possibility that referring to all mothers as opposed to African mothers reflected the absence of concern for African mothers, probably because the health professionals felt too comfortable with these group of mothers that they didn’t give much thought to them or their potential needs.

## Theme 2: Perception of the Support Network of African Mothers in the UK

This theme explains the health professionals’ perception of support available to African mothers, how they access the support and their responses to the support available. In general, health professionals described African mothers as having a really good support network that encourages breastfeeding. The support network identified by health professionals include friends and family, health professionals and other community services.

### Support from family and friends

The health professionals described the presence of family members to support the mothers, especially those who have lived in the UK for a long time. These family members included mothers of the new mums (infants’ grandmothers), sisters, aunties and other female family members.

“I also found that with the few black African mothers I’ve visited who are breastfeeding, they seem to have very good support. I think other cultures and nationalities do but they have very good family support, either grandmother is breastfeeding or has been breastfeeding and is very supportive or they have another family member, sister or sister-in-law who is or has breastfed and they’re very good support as well.” (HP1)

“…they are well supported because they’re able to care for family, keep up with the supply and continue to be here with their prem baby. They’ve obviously got fab support...” (HP12)

“Well, if they've got family, their family are very supportive. Mothers come and sit and help and they always have lovely food brought in for them…I think they do have good support.” (HP14)

Three health professionals commented on the roles that the infant’s father play in encouraging breastfeeding. One health professional explained that:

“In the families that I worked with, the husbands were quite supportive and supported breastfeeding as well so that had an impact on their choices… it's that practical and emotional support… if women haven't got that and if their partner or their husband isn't supportive, that adds to the burden as well… those kind of common things that put pressure on women to stop breastfeeding” (HP9).

However, in offering support and encouragement to breastfeed, the health professionals pointed out that African fathers could be quite forceful in their approach.

“… I have met a few families where mums have asked me about maybe adding formula feed, but the fathers have been very against it, and quite pushy, “No, breastfeeding’s best for your baby.” I have come across that with a couple of families. That they have really pushed them to breastfeed when they have maybe wanted a little break from it…” (HP8)

“But the fathers are very… I’ve not noticed this specifically, breastfeeding-wise, but I think the men seem to have a lot of control and are quite persuasive… forward.” (HP7)

For African mothers who did not have families with them in the UK, the health professionals highlighted that they would usually have friends who were from the same cultural background to offer necessary support.

“There’s quite a significant population of Portuguese speaking African women who tend to stick together.” (HP10)

“There was one lady a while ago… She wasn’t from this area, and I remember she only had a friend… and it was lovely to see that she had a friend … I do remember them saying that she was on her own, she didn’t have anybody other than this friend, who was also African.” (HP15)

“I feel the African community really support each other amazingly well.” (HP3)

“A lot of support within the community, in the black African community… most of the black African ladies that I know have got a really good social network of other black African women who aren’t necessarily- not relatives.” (HP8)

More importantly, the church was identified as a significant part of the support network available to African mothers. The health professionals explained that the African mothers had a close-knit relationship with their church friends and would usually refer to them as family and not friends.

“Say if a mum has moved up from Africa. I say, "Have you got any friends?", "Oh yes." They can't believe I'm asking if they've got no friends, because the Church is a massive thing. That is a massive support. That's huge…” (HP3)

“… a lot of them have a lot of support from church… not relatives, but they will call them sisters, and a lot of it is through their church. I don’t know if the Muslim black Africans have as much support, actually.” (HP8)

“A lot of them didn't have that extended family support that they would normally have from mothers and sisters and aunties who have breastfed… The church were very supportive and I think that was good…” (HP9)

In fact, most of the support available to African mothers was attributed to their church. One health professional in describing this commented that, *“Well, I think if they haven’t got the church support, they may not have as much support.” (HP10).* Similarly, another health professional suggested that Muslim African mothers may not have as much support as the Christians, particularly within the community, stating that, *“…the Muslim women tend to stay in the house and not socialise as much.” (HP7)*. The importance of the church in supporting new African mothers was further reiterated as health professionals described the role the church played in supporting African mothers with asylum-seeking status, whose experience of support in the UK was different from mothers who had wilfully immigrated into the UK.

Asylum-seeking mothers were described by the health professionals as *“a group of people who are very isolated… the most vulnerable group for every aspect, including breastfeeding” (HP8, HP10)*, *“very lonely” (HP7)* and *“…don’t have [support].” (HP2),* but were known to make friends and build relationships very quickly, with the church playing a major part.

“… to be honest, lots of even the asylum-seeking mums that we might have tend to have a friend or someone somewhere. So they have their own network, and church seems to play a large [part]… they will refer to church friends, or religion, as being their community.” (HP2)

“… not initially, but then they do seem to get friends. They seem to find friends, be it through a church or whatever… but that can take quite a long time, depending on what has led to them coming. It’s how confident they are in seeking, going out into the community.” (HP8)

However, two health professionals suggested that the absence of support among asylum-seeking African mothers did not prevent them from breastfeeding their infants, and explained that, *“…they are literally just sat in their bedrooms all day, so they’re quite happy to just breastfeed”* (HP7) and *“… [they’ve got] time to breastfeed.”* *(HP8).* It is therefore not clear whether they were self-sufficient in coping with breastfeeding alongside other daily demands or whether they were able to make friends very quickly and get the necessary support before they became too stressed to cope with breastfeeding.

### Support from health professionals and breastfeeding support services

Furthermore, the support African mothers received from health professionals was discussed. The health professionals referred to the on-going support they offered to mothers including directing mothers to the breastfeeding support team, and other community services that would be beneficial to the mothers. Although, this support received from health professionals was not specific to the African community, the health professionals described the unique responses that African mothers had to these support services. Health professionals highlighted that African mothers were welcoming of the support, listened to and adhered to advice from the health professionals, especially when the benefit to their infant was highlighted.

“They really accept, and are receptive to, health visiting input.” (HP3)

“…the African ladies that we see are all very happy to take on any advice that we give… I think they’re very happy that they have this service to reflect on… and you know, people [African mothers] follow advice... They want the best for the child…” (HP8)

“I think once you explain, they do tend to think, “Ah, right, yes.” … [it’s about] how you approach it.” (HP7)

With respect to engaging with other services within the community that may have been recommended to the mothers, the health professionals had different views. While some health professionals suggested that African mothers engage well with community groups, others felt that the response of African mothers was dependent on their individual circumstances, whether they had one or more children or had other social groups that they preferred to be involved with.

“I think it’s quite different if it’s a mum with a first baby, who wants all the advice, but I think sometimes some mums who have got quite a few children, quite a busy life, take them to and from school, sometimes don’t really want the intervention of somebody else. They want to just get on with their lives...” (H8)

“No not really, I think they just get on with it, they have their own church group.” (HP18)

However, the health professionals identified two major barriers that impacted on their ability to offer the most adequate support to African mothers. First, language was identified as a major barrier to receiving adequate support from health professionals among non-English speaking African mothers. The health professionals expressed the difficulty they encountered in supporting these mothers as well as the efforts to ensure that messages are clearly passed across by interpreters.

“I think sometimes there’s a language barrier, which makes it harder, I think, for people to help… if there is a language barrier, it’s kind of hard to… You don’t want to make people feel awkward either by asking questions and they don’t know what they mean. They don’t understand, and they get worried. It’s creating problems where you shouldn’t type of thing.” (HP13)

“I think the only thing might be language barrier… because some people have limited understanding of English but they will nod in the right places and I think does she understand or she’s just nodding… so I’ll have to use an interpreter and sometimes that can be difficult as well…” (HP1)

“Just the language barrier, I presume, of English… people weren’t aware of somebody from the Congo speaking a different ... You have to be very careful when you’re selecting your interpreters… I think sometimes there is quite a difficulty when you’re using interpreters. There could be some cultural issues in relation to which interpreter you use… You’re not sure whether the interpreter has given the correct information. You just have to rely on that.” (HP10)

Secondly, the attitude of African mothers towards mental health was equally identified as a major barrier to receiving adequate support from health professionals. The health professionals who were interviewed explained that African mothers tend not to be open about their emotions and mental health status.

“They're probably a lot more closed off with their emotions than British women are, I think.” (HP14)

“You have to ask them. I don’t think they would just come out and say… because they might tell you they’re fine, but then you might actually see that they’re really low on the [assessment].” (HP7)

“If we’re talking about black African women, I think no. I think they’re quite private. And I think you have to probe, and they need to trust you before they will say anything.” (HP8)

The health professionals explained that African mothers usually appear to be fine and coping well with breastfeeding and the demands of being a new mother but equally expressed the uncertainty they felt as to whether the mothers were really coping or just reluctant to discuss their mental health.

“I think they seem to cope better, but you don't know if they're actually coping better, if you know what I mean.” (HP14)

“Black African women will seem very cheery, but they’re not really... and laugh, because that’s the normal speech pattern, is to laugh. People think it’s because they’re happy and jolly, and they’re not really.” (HP8)

One health professional highlighted that African mothers tend to attribute mental health concerns to physical or spiritual things and are reluctant to discuss them, with the hope that their faith would deliver them.

“… sometimes they don’t recognise it [mental health] in the same way as we do… they believe there’s… some sort of animistic kind of thing… or they talk about it in terms of physical symptoms… than actual emotional symptoms… a lot of my African mums are quite religious,… and they see it as a sort of spiritual battle or something between evil and good… and not want to admit to it if they are feeling not so good but they’ll say something about their religion, that God is our strength or something like that, as if that is going to sort of solve the problem.” (HP18)

However, health professionals discussed the strategies they adopted to unravel such mental health issues but remained concerned that a lot of African mothers requiring mental health support might slip through and not get identified by professionals.

“On the ward, the communication is very good. Midwives will ring the ward and say, “What do you think about this mum?”… “She’s closed off from us” and stuff. … African women are very emotional. When they’re happy, you know how happy they are. They’re just fantastically happy, but when they’re sad, they just seem to go quiet rather than knowing that they’re sad… [and] I suppose it would [affect breastfeeding].” (HP14)

“So obviously we assess their mood at certain points. When we go out we always ask them how they’re feeling. At six weeks we do a questionnaire with them for postnatal depression, which is an opportunity to talk more about their mood… opening questions about, “Oh, you’ve said this. You said you cry a lot. Why are you crying a lot?” So you know, the questions it asks. So that’s quite a good way of looking further into their mental health.” (HP8)

As a summary, the health professionals highlighted that African mothers do have a well-built support network, and have access to practical, emotional and technical support. The health professionals explained that African mothers either had family in the UK to support them during breastfeeding or were very quick to make friends and build a support network for themselves, particularly the mothers at higher risk of being isolated such as asylum-seekers. Church was a particularly important source of support for the Christian African mothers whether or not they had family in the UK and the health professionals expressed that African mothers who did not have contact with a church often did not have as much support as those that did. In addition to the support from family and friends, the health professionals also highlighted that African mothers appreciated the support they received from health professionals. However, potential barriers to the health professionals support were identified which could limit the level of support technical and possibly emotional support that African mothers may receive from health professionals.

# CHAPTER 7: Integration of Findings

## Chapter Introduction

In Chapters five and six, the findings from interviews with both mothers and health professionals have been discussed. In order to add context to the findings from mothers’ interviews, the themes that emerged from both mothers’ and health professionals’ interviews are integrated in this chapter, highlighting areas of agreement, disagreement or silence (See Appendix 9). Bourdieu’s notion of Habitus is used as a theoretical framework to help to explain and understand the motivations and feelings of mothers, thus revealing issues often overlooked or misunderstood by health professionals. Thereafter, a further integration of the findings from the qualitative interviews with the findings from the systematic review are presented.

## **Integration of Findings from the mothers’ and health professionals’ interviews according to Bourdieu’s Theory**

According to Amir [177], health behaviours are not isolated occurrences, and a recognition of the importance of individuals’ social circumstances may improve understanding of infant feeding, thereby improving our ability to increase breastfeeding rates. As discussed in Chapter three, Bourdieu’s theory has been applied in areas of food and nutrition, and explains that practice is influenced by elements of our daily living that have been taken for granted and not reflected on because there is no requirement to [182]. These elements are a function of unconsciously learnt rules and principles [178] which have formed a habitus. The habitus of individuals produces “class-dependent, pre-disposed, yet seemingly ‘naturalised’ ways of thinking, feeling, acting and classifying the social world and their location within it” [182]. Some of these elements (habitus) for African mothers exist in their cultural norms and practices, including breastfeeding beliefs and practices which have been unconsciously passed on from previous generations. Therefore, breastfeeding can be described as a ‘naturalised’ practice that is hardly reflected on by African mothers. As a result, the mothers had various preconceptions of breastfeeding that were fundamentally challenged as they entered a different field of experience (UK), which influenced their practice. Additionally, the various forms of the capital possessed by the mothers impacted on their breastfeeding practices.

These elements of habitus are used as a framework to understand the motivation of the mothers to what they do and how social change occurs. Although Bourdieu’s theory is generally based upon class distinctions, in the context of this research, the theory has been adapted to ethnicity and culture. The following sections present discussions on each theme that emerged during this study as explained by Bourdieu’s framework. In this chapter, any reference to the habitus of African mothers relates only to their infant feeding habitus.

### Breastfeeding as a culture

#### Naturalness of breastfeeding

Breastfeeding for the African mothers according to my findings was shown to be an embodied experience as mothers described it as a ‘norm’ or ‘natural’, and the health professionals agreed with this, describing African mothers as being *“very laid back”* and *“not worrying”* even when their milk production was delayed in the few days after birth because it was perceived as natural. In the words of one mother (Mother 9), *“…all I know is that when the woman gives birth to a child, naturally the breast milk starts coming out from the woman’s breast for the baby to suck on…”* This provides a vivid representation of the *habitus* of African mothers who had learnt from their childhood years that breastfeeding is normal and had considered it a necessary and compulsory part of motherhood.

Owing to the unconscious expression of habitus, Reay [234] described four key elements of habitus which are; habitus as embodiment, habitus and agency, habitus as a compilation of individual and collective trajectories, and habitus as a complex interplay between past and present. These concepts are highly relevant to this study providing a deeper understanding of the interaction of African mothers to their new environment. These elements will be drawn upon in discussing the findings of this study.

Habitus as embodiment helps to further explain the naturalness of breastfeeding among African mothers. Habitus as embodiment describes how ‘*dispositions’ are not only reflected through words, thoughts and feelings but also through “bodily hexis”, which is how our conditioning comes to be reflected in us through how we act and carry ourselves and hence bodily.” [235].* This has been used in previous research to explain how in a study of Russian Jewish immigrants in Israel, the interviewees took for granted that Jews had a certain bodily appearance [236]. Similarly, it has been applied to ethnic stereotyping in Kenya, where as a matter of fact, certain groups of people are identified by certain characteristics [235]. In the context of African mothers, breastfeeding is practiced with minimal thought and perceived as the normal way an infant should be breastfed.

Living in the UK however presented a different perspective of breastfeeding as a choice, when mothers were asked during pregnancy if they had decided how they intended to feed their infants, whether breastfeeding or not. This question, a requirement of the antenatal care guidelines used by health professionals, posed a threat to the habitus of African mothers. The mothers expressed the surprise and “*weirdness*” they felt about this question because habitually, their breastfeeding was perceived as ‘a must’ and not an option, and most of them had planned to breastfeed their infants long before conception. The health professionals had equally perceived this habitus, one of whom indicated that African mothers “*all wanted to breastfeed and been very positive about it, not sort of even, “well I’m thinking about it”. They’ve all definitely wanted to breastfeed and then they do breastfeed when their baby is here” (HP1).* This perception resulted in the presumption among health professionals that if a mother was African, then she had planned to breastfeed, and asking the question of choice of infant-feeding method was only done to follow the set guidelines. However, the health professionals appeared unaware of the conflict this question created for the African mothers they supported.

The interaction between a new field of power (UK) and the habitus of the mothers created an awareness in the minds of the mothers that a choice not to breastfeed can be made, which challenged their habitus. The mothers therefore needed to consider and negotiate this new concept of choice of infant feeding method, which may have brought about concern, angst and worry for the mothers, and health professionals were oblivious of these emotional responses. The process of negotiating this new information required mothers to apply their knowledge and themselves to piece sources of information and experiences together with their habitus. This can be explained further by the element of Habitus and agency which describes *“the potential to generate a wide repertoire of possible actions, simultaneously enabling an individual to draw on transformative and constraining courses of action”*, however with emphasis on the constraints and demands imposed on people, giving room for individual agency while predisposing individuals towards certain behaviours [234].

In this context, the African mothers did not passively adopt practices from the UK but had to constantly reflect on the new information and culture they were exposed to, adopting a bricolage approach to develop preferred ideologies, leading to a transformation of the part of their habitus relating to infant feeding. Using their own knowledge (agency), as well as social influences such as family and friends, and information from various sources, the mothers created their own “ideal habitus” as it related to their individual circumstances. Hence, no two mothers developed the same “ideal habitus” as they all had different experiences and social factors influencing the redefining of their habitus, despite receiving similar care in the UK. The active application of their agency to redefine their habitus is what results in social change. As observed by Gallegos and colleagues [94], this explains why African mothers in Australia maintained some of their home-country infant feeding practices whilst adopting some practices from their host-country.

Restructuring the infant feeding habitus for African mothers involved more than just absorbing cultural norms from their host environment but took courage and time. The habitus being an ingrained disposition for the mothers meant that a challenge to this habitus was equally a challenge to the self, causing pain and difficulty. It meant the mothers went against their culture and life-long beliefs. The disapproval of certain practices from the infant’s grandmothers would equally have been challenging and it therefore took courage and resilience to redefine their habitus. This process would also have required a good amount of time for mothers to consider the new information and the consequences of taking the information on board. This explains why the awareness of breastfeeding as a choice was more evident with mothers who had had a previous birth experience in the UK, as such mothers who experienced challenges with breastfeeding were quicker to opt for supplementing with formula. This is contrary to the findings from Africa where mothers were described to have devised strategies to overcome the challenges of breastfeeding faced [46]. These mothers had had sufficient time to consider and negotiate the new culture in relation to their other knowledge and experiences, thereby layering up new information with previously held beliefs. Habitus as a complex interplay between past and present provides further insight into this process of habitus re-structuring as it explains that “*although the habitus is a product of early childhood experience… it is continually restructured by individuals’ encounters with the outside world”* [237]. Therefore, habitus is “*linked to individual histories”* [238] but undergoes re-structuring as a result of current events that create additional layers to those from earlier socialisations, over a period of time.

Another aspect of the habitus highlighted by the mothers involved the use of wet nurses. The mothers explained that as part of their breastfeeding cultures, mothers breastfed one another’s children thereby providing assistance and support when breastfeeding proved difficult. The absence of this practice in the UK meant that mothers were left to do all the breastfeeding alone no matter how uncomfortable it felt. These mothers may therefore have felt alone and incapable of coping with the demands of breastfeeding among other things and therefore may have had a higher tendency to stop breastfeeding earlier than planned. One of the mothers who discussed this practice highlighted the stress and pressure felt while breastfeeding and was unable to continue exclusively breastfeeding for six months.

Additionally, having lived in a country where breastfeeding was the norm and a habitual practice, African mothers had the perception that breastfeeding was an easy process expressing the thought that babies were “just popped on the breast” and breastfeeding kicks-off. However, upon having personal experiences of childbirth and breastfeeding, they soon realised that this was not the case and breastfeeding required some skills and techniques for painless and effective feeding. Health professionals unaware of this phase of shocking reality experienced by first-time African mothers described them as ones who were hardly faced with challenges but *“whatever the age… would just know the cues straightaway and just pick the baby up… so skilled at it”* (HP1)*.* These mothers often felt like failures when breastfeeding was not going as they had planned as their habitus was being challenged again. They blamed themselves thinking they had done something wrong as their habitus had been shaped from the wider social context of breastfeeding in terms of what their own mothers did, what they had seen other mothers do and what was obtainable to them whilst in the UK. Habitus as individual and collective trajectories gives more understanding of this, describing habitus as *“a multi-layered concept with more general notions of habitus at the level of society and more complex differentiated notions at the level of the individual”* [234]. The mothers’ perception of breastfeeding in the light of what they had observed around them (collective trajectories) played a part in the re-structuring of their habitus to form their individual trajectories (“ideal habitus”).

Unfortunately, the health professionals lacked awareness and were unable to grasp the challenges and conflicts faced by African mothers. Instead, they assumed that the mothers were highly knowledgeable of breastfeeding and had it all figured out. They had high expectations of African mothers regarding breastfeeding, which translated into feelings of pressure among the mothers. The inability of health professionals to respond to the struggles and conflicts of the mothers due to a lack of knowledge, coupled with the regular challenges of having a new baby may have resulted in the wide range of emotions highlighted by the mothers such as feelings of stress and pressure. Consequently, mothers expressed dissatisfaction with the level of information received regarding breastfeeding and possible challenges associated with it, especially as some mothers had no prior knowledge of EBF. Mothers who reported being well informed about breastfeeding reported having better breastfeeding experiences.

#### Barriers to breastfeeding

The rate of EBF for six months was low among mothers in this study. This may be a reflection of their habitus as the knowledge of EBF was low and the mothers expressed uncertainties about EBF practices in their home countries. However, among mothers who were knowledgeable about EBF and its benefits, knowledge was not necessarily translated into action, although all mothers initiated breastfeeding. The most common barriers to six months EBF cited by the mothers were returning to work, refusal of breastmilk by the infant and issues around breast milk supply such as reduced supply, cessation of breast milk and delayed onset of breast milk supply. Mothers however continued to feed their infants with breast milk after stopping EBF except in instances where breast milk ceased completely.

Health professionals on the other hand suggested that the presence of older less-independent children was a reason why some African mothers opted out of EBF. Although some of the mothers expressed that having older less-independent children (e.g. other toddlers) made breastfeeding more difficult and less enjoyable due to the demand of having other children to care for, the mothers did not suggest that this affected their decision whether to exclusively breastfeed or not, nor did it determine how they eventually fed their infants. Instead, the mothers found ways to manage with the difficulty. In fact, one mother opined that first-time mothers were more likely to stop breastfeeding in the face of difficulties than experienced mothers were, explaining that lessons learnt from previous experience made it easier to cope with difficulties such as sore nipples and latching. Similarly, one mother with more-independent older children made no reference to her older children impacting on her breastfeeding practice or experience. This indicates that having less-independent older children may have made breastfeeding more challenging than having more-independent older children but did not lead to breastfeeding cessation.

Although older children had no direct impact on EBF practices among the mothers, a prior negative experience of breastfeeding had an influence on the future decision of one mother. In this instance, no reference was made to experiencing difficulties from increased demand from having an older child but the choice of mixed feeding had been made prior to conception as a result of a previous experience. Having a negative experience of breastfeeding for an African mother is a challenge to their habitus where breastfeeding is portrayed as natural, easy, straightforward and enjoyable. Recognising from a previous experience that breastfeeding was not as easy as thought may have made multi-parous mothers more inclined to consider alternate infant-feeding methods, following the suggestion that there are alternatives to breastfeeding, especially when the options were offered from a trusted person (as explained in section 6.1.2). This further depicts the element of habitus as past and present as the previous experience of this mothers created a re-structuring of her habitus, such that she maintained breastfeeding that had been known to be ‘a must’ whilst adopting a new practice as suggested in her new field.

Therefore, it can be argued that increased demand from having more than one child may have little or no influence on breastfeeding decisions but previous breastfeeding experiences influences future decisions regarding infant feeding. This is further influenced by an increase in economic capital – financial freedom to purchase formula – whereas, in many instances in their home countries, formula feeding was not an option due to the lack of finance to purchase formula milk. On the other hand, breastfeeding decisions were not affected when the mother’s prior negative breastfeeding experience was in Africa, as they were not exposed to external factors influencing their habitus and had remained within the field of experience where breastfeeding was perceived as compulsory irrespective of challenges faced, provided the challenges were not health-related. Health- or medical-related issues were the only acceptable reasons for not breastfeeding in Africa as described by the mothers, which the health professionals agreed to. The longer these mothers had been in the UK, the more evident the re-structuring to their habitus was. Phrases such as *“formula was created there for a reason”, “not everyone can breastfeed”*, and *“it doesn’t really matter”* used by some of these mothers reflected their re-structured habitus. Although health professionals also highlighted that competing demands of studying alongside caring for the family was a challenge faced by breastfeeding mothers leading to breastfeeding cessation, this did not impact on their breastfeeding practices and the mothers made no reference to this as a challenge.

Furthermore, delayed onset to breast milk production was equally a challenge to the mothers’ habitus of the ease and naturalness of breastfeeding. In the event that breast milk was not produced within the first few days to week after birth, the mothers reported feeding their infants with supplements until their milk supply came through, which was a hindrance to EBF. This was contrary to the perception of the health professionals who expressed that:

“African mothers exclusively breastfeed. They haven’t given a supplement, not even initially in the first few days where maybe the mum’s milk isn’t coming in very well and they start a supplement, I don’t find that, they all exclusively breastfeed.” (HP1).

The health professionals were aware of the habitus of African mothers but failed to recognise the degree of personal conflict they faced as their habitus was being challenged and re-structured.

#### Type of food for mothers and infants

The mothers discussed that in their cultures, new mothers were required to eat special foods and the food supplied in the post-natal wards of the hospitals in the UK were condemned as being inappropriate. While the mothers felt that these special diets were necessary to improve the nutrition in their milk and increase their milk supply, the health professionals were unaware of this cultural perception of food and only discussed that African mothers usually had *‘lovely meals’* brought in for them while they were in the post-natal wards. This part of the mothers’ habitus also being challenged but was not considered by the health professionals as an important breastfeeding need, despite the extensive effort and use of all available capital to obtain such special food even while in hospital. Although the mothers were supplied with regular meals in the hospital, they used their economic capital (finances) and social capital (friends and family) to ensure that they got the kind of meals they deemed appropriate for them. Cultural capital in its embodied state – knowledge acquired by associations with a culture or tradition through inculcation and assimilation over time - was also used by the mothers, as they relied on the knowledge of preferred foods for breastfeeding mothers that had been acquired from their tradition. Some of these mothers may also have considered their symbolic capital – the prestige and honour that will be attributed to them by other African mothers if they breastfeed, or how they may be perceived by other African mothers if they did not breastfeed – and as a result, made the extra effort to get these special foods to increase their milk supply, despite their relatively lower economic capital. Additionally, some mothers explained that they made attempts to get these foods to improve their milk supply but were unable to find them.

With respect to infant feeding, most of the mothers were unlikely to offer food in jars and packets to their infants but prepared home-made, often traditional meals for their infants which is the recommended practice. However, mothers also reported feeding their infants Cerelac as a weaning food, which was a concern for health professionals. In particular, feeding an infant Cerelac from a bottle was described as *“cultural ideas about weaning that people are used to”,* which reflects another part of the mothers’ habitus. The mothers paid no attention to the age appropriateness of the food but based on their knowledge from an embodied cultural capital, they simply offered it as a complementary food during weaning. Informing mothers of the inappropriateness of this meal for their infants after six months of age, especially with health professionals being satisfied with every other meal offered brought about even more conflict for the mothers as this was a challenge to their habitus. Therefore, the habitus of the mothers was continually influenced by new information as they continued interaction within the new field, which reflects an aspect of habitus as a complex interplay between past and present.

Additionally, health professionals reported that African mothers had a high likelihood to overfeed their infants after introducing solids, under the assumption that African mothers have desires for a bigger baby. Although previous studies [40, 94, 207, 208] discussed this as a pattern among African mothers, it was not a common thought among the mothers in this study with only two mothers making reference to the size of their infants. These mothers pointed out that EBF for six months was the ideal practice to have a big chubby baby provided the mother was having a healthy diet. They made no reference to an infants’ size after weaning but added that in the UK, big babies are called overweight or obese. This compounded the existing challenge to their habitus – naturally inclined towards breastfeeding – fearing that their infants may be referred to as overweight if they breastfed so much. The mothers’ desire for a big baby appears to have been advocating prolonged breastfeeding, whereas health professionals misconstrued this desire as a reason to overfeed infants. One health professional however recognising the link between the presumed overfeeding of infants and the mothers’ habitus explained it better in her suggestion that overfeeding occurred because mothers did not reduce breastfeeding after the introduction of solids, and this was attributed to their natural inclination towards breastfeeding.

#### Breastfeeding initiation and duration

All the mothers in this study initiated breastfeeding which corresponded with the perception of the health professionals that African mothers would all breastfeed except there was a health or medical reason preventing breastfeeding. EBF for six months was however not universal but the majority practiced EBF for four months. Prolonged breastfeeding was highlighted by the mothers as a common practice among mothers living in Africa, as infants were often breastfed for up to two years and even late into toddlerhood when the child was able to talk and ask for breast milk. Many mothers in this study were interviewed whilst they were still breastfeeding, but among those who had stopped breastfeeding, the majority breastfed for at least one year, especially first-time mothers, as would be expected of their habitus. The perception of the health professionals aligned with this finding as they reported that African mothers would usually continue to breastfed after weaning at six months of age, but gave no indication that the mothers continued breastfeeding for up to two years. This may be because majority of the health professionals did not follow mothers up for two years. Among the mothers who were interviewed, only one mother had continued breastfeeding for two years and one indicated an intention to breastfeed for up to two years. It is not entirely clear why the mothers may have discontinued breastfeeding earlier than would have been expected from their habitus but some reasons cited include the need to return to work or school, infants refusing breastmilk following the introduction of formula milk, breast milk cessation and mothers simply feeling that it was time to stop breastfeeding, especially mothers who had breastfed for one year.

It is well known that mothers of lower socio-economic status in LMICs are more likely to continue breastfeeding for longer [46, 57, 239, 240]. Studies in HICs [211, 241, 242] have shown that lower socio-economic class mothers tend to discontinue breastfeeding earlier, despite breastfeeding being a cheaper means. However, there was no clear indication of the impact of socio-economic class on breastfeeding in this study. Mothers who were in employment or studying had a higher tendency to stop breastfeeding early especially with an insufficiency of social capital in the form of family and friends to offer practical support as discussed in section 7.2.3. This led to early supplementation with formula milk, which may have contributed to the refusal of breastmilk by the infant as well as breast milk cessation. Mothers who reported that their infants stopped accepting breastmilk linked this to the infant receiving formula milk and preferring that over the breastmilk.

#### Breastfeeding in public

The concept of breastfeeding in public had different interpretations for the participants in this study. While some participants understood breastfeeding in public as merely being able to breastfeed an infant outside the home, others described it as breastfeeding openly, without the use of aprons and/or finding private spaces for breastfeeding. This shows the individual trajectories of the mothers regarding breastfeeding in public, informed by the collective trajectories – public breastfeeding is widely practiced though may have been observed in various ways – obtainable in their home countries. Owing to this, the perception of breastfeeding in public among African mothers varied. Although all mothers affirmed that they would breastfeed their infants whenever it was required even if they were outside their homes, some of the mothers explained that they would either find a private breastfeeding space or use an apron, while others expressed the freedom they felt to breastfeed anywhere irrespective of onlookers. The health professionals equally agreed that African mothers were the least concerned about breastfeeding in public recognising that majority of them felt free to breastfeed in the presence of others, while others made use of aprons or breastfeeding friendly facilities in community spaces. Contrary to the breastfeeding practices adopted by these mothers in the UK, the mothers described how breastfeeding was publicly practiced in their home countries without concern for onlookers. They explained that there was a clear understanding that mothers had a responsibility to breastfeed her infant and passers-by were not bothered by the sight or simply looked away if they felt uncomfortable by it. Mothers had no need to use apron or seclude themselves to breastfeed, which reflects their habitus with respect to breastfeeding in public.

In the UK, the social norms governing breastfeeding in public were completely different from what the mothers had known posing a challenge to their habitus. The general notions of breastfeeding in public within the UK defined by the lack of visibility of breastfeeding in the UK and hearsays that breastfeeding in public is not widely acceptable challenged the mothers’ habitus of public breastfeeding and influenced the mothers’ choices regarding public breastfeeding. The mothers were conflicted as to what was the best practice and mostly exercised caution with breastfeeding in public, making deliberate efforts not to expose body parts by using aprons and finding private enclosed spaces to breastfeed, particularly for the sake of the people around. While this worked out well for the mothers as they were able to uphold their breastfeeding preferences, the mothers experienced a deep re-structuring of their bodily habitus as they began to get accustomed to covering up while breastfeeding. This re-structured habitus reflected in their practices when they returned to their home countries as they used aprons or secluded themselves to breastfeed, leaving their friends and families surprised at the new attitude. Often the mothers needed to be reminded that covering up to breastfeed was unnecessary while in Africa.

However, this reflexive re-construction of habitus in relation to public breastfeeding appeared to be short-lived for some mothers who reported that they only felt cautious of onlookers within the initial few months after birth and soon afterwards got freer to breastfeed without aprons or breastfeeding friendly spaces, caring less about onlookers and more about their infants’ needs, and ready to defend themselves if confronted. As Bourdieu [180] explained, learned characteristics from childhood are the most ingrained and difficult to modify. The mothers being in a different field of experience attempted to preserve their symbolic capital –how they are perceived in the society – in the new environment by adhering to the practices within their new environment. However, the influence of their habitus was stronger, forcing them back into the pre-conceived states. Caught in the middle of their habitus, a new field and preserving symbolic capital, the mothers devised means to find a balance, resorting to the use of aprons/breastfeeding spaces when it was convenient whilst putting their infants’ needs as a priority. Some mothers explained that formula feeding (converting economic capital to symbolic capital) made infant feeding in public easier as they highlighted the challenges of finding a private breastfeeding space or using an apron such as the infants pulling aprons off. Although none of the mothers claimed to have supplemented with formula based on the challenges of breastfeeding in public, mothers who fed formula to their infants prior to six months highlighted that they found it easier when in public.

Despite this, the mothers recognised and appreciated the efforts made to encourage breastfeeding in the UK, referring to the availability of breastfeeding friendly spaces as a thoughtful approach to cater for the non-acceptability of public breastfeeding. This was compared with practices in the USA where the societal perception towards public breastfeeding is similar to that in the UK but without any accommodation for mothers who need to breastfeed while outdoors. Notwithstanding, the mothers were not deterred from breastfeeding by the perception or societal influence of their new field of experience.

While this summarises the experience of the mothers interviewed in this study, the health professionals highlighted that religion may be a major influence on how breastfeeding in public is perceived and practiced. The health professionals made reference to Muslim mothers, who because of their religious practices may find breastfeeding in public more challenging and, therefore, be less likely to breastfeed in public. However, it was not possible to compare these views provided by the health professionals with the views and experiences of the mothers as their religious affiliations were not disclosed during interviews.

### Gathering and navigating information sources

Various sources of breastfeeding information that the mothers consulted were identified including word of mouth from friends, family and health professionals, books, leaflets and internet sources, formal education and observing other mothers, with friends, family and health professionals being the most influential source. The health professionals recognised this among African mothers highlighting that family and friends were highly influential in the infant-feeding decisions made by the mothers, but the mothers equally listened to them and adhered to their instructions. However, access to a wider range of information sources led to ambivalence towards the practice of breastfeeding as this challenged their habitus.

In Africa, the infant’s grandmother was the main and most trusted source of information. Therefore, mothers experienced a struggle between their embodied cultural capital – what they had learnt over the years, and their institutionalised cultural capital – what they had learnt from formal education such as books and internet, leaflets and health professionals. Hence, they sought more validated knowledge to inform their infant feeding habitus. As a result, they navigated the various sources of information which were sometimes conflicting, to identify the best practice for their individual situations. A lot of agency was brought to play here by the mothers in finding out information for themselves by referring to books and accessing the internet and not only going by what they had been told by their family, friend or health professionals. However, the health professionals were identified as their most trusted source of information, as they regarded this as the most up-to-date and evidence-based information available to them. This further reflects Reay’s element of habitus and agency as the mothers did a lot of reasoning to assess available information and make decisions influential to their habitus.

Some knowledge and practices learnt from their mothers and other female family or friends were still adopted in addition to health professional advice, leading to a partially re-structured habitus. Although the health professionals were unaware of the conflict of information the mothers had and the need to navigate these information sources, they recognised the tendency of the mothers to listen to the information health professionals provided. Most often, traditional practices or generational information offered by infants’ grandmothers or other friends or family were only followed if it did not contradict health professionals’ advice.

The mothers further described how information from western countries was being transferred into the African culture by people who had migrated to these countries for education. These individuals, after being exposed to a new field and experiencing a re-structuring of their habitus returned to Africa and influenced existing cultural practices with their newly adopted practices, causing a shift in the cultural perceptions and practices within Africa. Therefore, the collective cultural habitus in Africa changes over time due to the movement between countries and cultures. This is also a reflection of habitus as a complex interplay between past and present, showing the continual restructuring of habitus, in this case the collective habitus in Africa, following their experiences and encounters with other cultures.

Hence, younger mothers in Africa are beginning to consider breastfeeding as a choice and thereby opting for formula feeding depending on what they perceive as being more convenient for them. In a similar way, mothers in the Western world may be improving their breastfeeding practices, as influenced by celebrities on social media. However, it is not clear what the cultural origin of these celebrities are.

### The essentiality of support

As with information sources, mothers in this study identified the different sources of support accessible to them while in the UK which include friends, family, health professionals and church support, and the health professionals reported the same. In particular, they described how in the absence of one source of support, the other sources made up for that absence. For example, mothers who did not have family around in the UK usually had their friends or the church community to support them. The majority of the mothers in this study did not have their extended family in the UK and therefore did not have access to as much support as they thought necessary during breastfeeding and would have had if they were in Africa. Hence, they found ways to recreate the kind of support networks that they would have had back in their home countries, leaning on friends and in particular their church friends for practical support. Although they appreciated the emotional and technical support received from the health professionals, they were needier of the practical support that the health professionals could not provide.

Building the required kind of support network in the UK with whatever means possible reflects part of the mother’s infant feeding habitus, as they had experienced mothers in their home countries receive lots of support in the first few months to years after a child was born. Therefore, according to the African mothers, a good support network was necessary in order to efficiently and adequately breastfeed. Being in the UK, this part of their habitus was challenged as they were continually encouraged and expected to breastfeed by health professionals, without the required support to be successful at it. This may have resulted in mothers supplementing with formula early and/or stopping breastfeeding earlier and may explain why some mothers did not continue breastfeeding for as long as is usually done in Africa. Although the mothers found ways to replicate the African-like support network in the UK, certain limitations were identified, such as the desire for night-time support which could not be offered by non-family members. The support received from friends and family in the UK was often limited as these people only stayed a while and returned to their homes, and so the mothers still had times when they wished that they had some more support.

Additionally, the health professionals recognised a religious divide in the support network accessible to the mothers, indicating that Muslim mothers had less support compared with Christian mothers because they lacked access to the church, and did not receive an equivalent support from their mosques. The practice of staying indoors and not being exposed to the public was identified as common among Muslim mothers, which may have impacted on their ability to receive any other forms of support apart from what was offered by their friends and family within their homes. It is however possible that Muslim mothers had more support in Africa as they could either have family members live with them or go live with a family member. Religion was however not identified by the mothers as an influential factor to breastfeeding, possibly because none of the mothers interviewed identified as being Muslim and so would be unaware of their specific challenges. Although, mothers did not disclose religious affiliations in the interviews as earlier mentioned, the majority of the mothers were recruited from a church organisation or snowballed from friends within the church organisation and were therefore assumed to be Christians. Others who had no association with the church gave no indication of being Muslims.

In addition, the mothers in this study were appreciative of the support provided by health professionals especially when practical support from friends and family was limited. Health professionals on the other hand lacked confidence about the quality of support they had offered African mothers because they were often too confident that the mothers had breastfeeding all figured out, making them more laid back in offering support and taking for granted the fact that these mothers had their own challenges as do mothers from other ethnic groups. Receiving the level of support offered by health professionals in the UK was a challenge to the habitus of the mothers as support from health professionals was almost non-existent in their home countries, possibly because breastfeeding was considered a natural practice that every mother was expected to be knowledgeable about. One health professional in describing how African mothers may perceive health professionals’ support stated that:

“…women coming from African countries, they're not familiar with the health service because it doesn't exist in lots of other countries. At first they're a bit suspicious… Because we're nurses but we don't visit sick people, but once people understand what your role is then they do come for help”. (HP 9)

Therefore, African mothers in the UK were glad to receive such attention and care from health professionals and were content with whatever level of support they were offered by the health professionals.

However, this support was sometimes interpreted by the mothers as pressure to breastfeed which health professionals were unaware of. Some mothers reported that health professionals appeared too persistent in ensuring that a mother who had agreed to breastfeed actually does breastfeed, and could be validated by a statement from one health professional who claimedthat:

“statistically, we do look like a fab caseload because our African mums take our breastfeeding statistics right up.” (HP3)

While health professionals were aware of mothers feeling pressured by their family members or friends to breastfeed, they were unaware that some mothers equally felt a similar kind of pressure from the health professionals. This is similar to the findings of Wandel and colleagues [207] who reported that Somali mothers felt too much pressure from health professionals to breastfeed. Contrary to other studies, [40, 211] that reported African mothers feeling pressured by family members to supplement with formula, mothers in this study felt pressured by their friends and family to breastfeed.

The mothers and health professionals had similar views about the mothers’ engagement with community support groups. While some reported engaging with support groups, others felt self-sufficient and uninterested in support groups and some health professionals said likewise. Therefore, the benefits of community support groups to the breastfeeding experiences of the mothers studied is inconclusive. However, a previous study [40] showed that African mothers living in the UK highlighted the need of community support groups to improve their breastfeeding practices and experience.

Barriers to offering adequate support to African mothers, such as language and mental health concerns were identified by the health professionals, which the mothers made no mention of. When supporting a mother who was not fluent in the English language, the health professional had to rely on an interpreter and it was impossible to ascertain that the correct information had been passed across to the mothers and vice versa, but they used skills such as repeating, summarising and emphasising to attempt to reduce any misrepresentation of information. The mothers in this study were all English-speaking mothers and would therefore not have had any language issues, hence their silence on the subject.

With respect to mental health, the health professionals expressed concerns that African mothers were resistant to discussions around mental health and did not consider it an issue to reckon with. They were described as paying little or no attention to the symptoms or simply attributing the symptoms to something spiritual. This in itself may explain why the mothers were silent about mental health, as referring to mental health concerns in relation to breastfeeding or infant care was not present within their habitus and was likely to be a new phenomenon. Hence, the mothers’ reluctance to discuss the subject, as agreeing to the possibility of mental health concerns may have made the mothers feel different from other mothers of their culture, have feelings of guilt or feel undeserving of their babies. As expressed by one health professional:

“...for any woman with a baby, they don't want to tell you because they feel they should be happy that they've got this beautiful baby and they should be so grateful. To say that you're not grateful or you're actually not enjoying your baby is quite a taboo [but] for the African women… it's taken a few visits and the right questions to get them to admit this is really hard and I'm not coping” (HP 9).

Additionally, this health professional reported being informed by an African lady that, *“In our [African] culture, you didn't ever say if there was any abuse from your partner or your husband… because she was quite ashamed of it.”* (HP 9). Therefore, any reference to mental health whilst offering infant feeding support to African mothers may have been challenging to relate to as it contradicts widely held cultural beliefs and at a deeper level, their individual identity as a ‘good’ mother.

In this section, Bourdieu’s theory was used to provide a deeper understanding of the findings from the mothers and the health professionals’ interviews, whilst integrating the findings from both sets of interviews. The next section presents an integration of the findings of the qualitative study in this PhD with the findings from the systematic review.

## Integration of Qualitative Interview Findings with Systematic Review Findings

Following the above integration of the findings from both mothers and health professionals, this section contextualises these findings in relation to the systematic review discussed earlier in chapter four. Although the systematic review synthesised evidence from all HICs, knowledge from this review provided a background to the interviews conducted in this study and will be relevant in giving context to the findings from the UK. This integration is based on the framework adopted in presenting the systematic review findings to maintain consistency.

### Breastfeeding practices

The breastfeeding practices reported in the systematic review involving African mothers from all HICs and the qualitative study within the UK were similar. Ninety percent of mothers in the systematic review had initiated breastfeeding while 100% of the mothers in the qualitative study did, showing that most African mothers initiate breastfeeding. However, EBF for six months was uncommon in both the systematic review and the qualitative study. Early supplementation with formula milk was common in the systematic review and was linked to the desire to achieve a bigger baby. Concerns about how much milk the mother was producing, and whether this was sufficient to meet the infants’ needs, were factors associated with early supplementation in the systematic review. In the qualitative study on the other hand, supplementation with formula before six months was mostly as a result of infants refusing the breast, delayed onset of breastmilk production or cessation in breastmilk production. Mothers in the qualitative study did not express concerns relating to milk insufficiency or a desire for a bigger baby.

### Knowledge, beliefs and attitudes towards breastfeeding

Similar findings on the knowledge, beliefs and attitudes towards breastfeeding were observed from the qualitative interviews and the systematic review, as well as inconsistent findings. Both studies reported that breastfeeding is considered a natural practice among African mothers and forms a major part of their infant feeding habitus, with mothers referring to their childhood knowledge of breastfeeding. In addition, the systematic review and qualitative interviews revealed that African mothers had sufficient knowledge of breastfeeding and were aware of its benefits. Benefits such as good immunity, strong and healthy babies, brain development, reduced chances of breast cancer, reduced ill-health, improved infant-to-mother bonding, economic benefit and convenience were common to both studies. Similarly, the belief among African mothers that certain foods or drinks increase milk supply was expressed in both the review and the qualitative study.

There were also differences around the optimal duration of breastfeeding, attitudes towards feeding infant water, and breastfeeding in public. While mothers in the systematic review reported an optimal duration of breastfeeding of two to 2.5 years, most mothers in the qualitative interviews objected to this, indicating that breastfeeding beyond one year was unnecessary. The Qur’an was observed as a major influence on the breastfeeding beliefs and decisions of the mothers in the systematic review, who suggested that breastfeeding is recommended for a duration of 2.5 years in the Qur’an. These mothers expressed that breastfeeding was considered the will of God and if a mother was unable to breastfeed, it was because God did not allow it.

However, a few differences were observed regarding the beliefs around colostrum and expressing breast milk. The systematic review findings showed that African mothers consider colostrum as ‘dirty’ and bad for the infant, with only a few mothers considering colostrum to be beneficial. However, there was a consensus that milk that has stayed long in the breasts (usually for about two hours or more) is considered stale and should not be fed to the infant. This impacted on the use of breast pumps as expressed milk was equally considered stale in some instances. On the contrary, mothers in the qualitative study did not express similar beliefs; all fed colostrum to their infants and fed expressed milk to their infants as required. In addition, mothers in the systematic review associated an insufficiency of breast milk supply to being in a Western environment, whereas mothers in the qualitative study did not make this association, and only made reference to milk insufficiency in terms of delayed onset to breast milk production and a cessation of milk supply after the initial few months. Some of these differences may be attributed to the different population groups in both studies as the systematic review had more Somali mothers and the participants of the interviews were mostly from West and East Africa.

Also, the systematic review reported that mothers had strong beliefs about feeding infant water within the first week of life either for reasons of thirst, heat or digestion, while in the qualitative study, most mothers believed that exclusively breastfed babies did not require additional water. In relation to breastfeeding in public, the systematic review reported that mothers felt stigmatised and ashamed of breastfeeding in public, and only some Muslim mothers felt comfortable breastfeeding outdoors because of their clothing, but still sought private spaces where they could avoid men. Meanwhile, the qualitative interviews reported that African mothers were mostly comfortable breastfeeding in public, but many made use of breastfeeding friendly facilities and clothing, an uncommon practice in their home countries. This difference observed with breastfeeding in public (the absence of stigma in the qualitative study) may be a result of the developments that have happened over time with respect to the availability of facilities to encourage breastfeeding in public such as breastfeeding aprons and breastfeeding rooms.

One influential factor was identified in the qualitative study that was not presented in the systematic review – choice. Being offered a choice was initially a surprise to the African mothers as breastfeeding was perceived as compulsory in their home countries. However, after a period of worry and uncertainty as a result of the choice, the mothers began to settle into the idea and modified their previously held beliefs and practices over time, maintaining some beliefs from their home countries and some from their new environments. Additionally, the qualitative study found that mothers did not only modify their individual practices but returned to their home countries with the new information they had acquired, influencing the prevalent practices in Africa. The mothers who were interviewed therefore opined that the breastfeeding practices in Africa are being modified to reflect Western breastfeeding practices. Although findings from the systematic review referred to mothers reflecting on their childhood years in comparison with their experiences of breastfeeding in the new environment, there was no indication that these mothers attempted to influence/change the prevalent practices in their home countries. Rather, these mothers described how widely practiced breastfeeding was in their home countries.

### Influence of socio-demographic, economic and cultural factors

Some differences were observed in the cultural and economic factors affecting breastfeeding practices reported in the systematic review and the qualitative study. The systematic review identified the desire for a bigger baby as the main cultural factor that influenced the breastfeeding practices of the mothers and led to early supplementation with formula. However, this was not an issue in the qualitative study as none of the mothers reported making decisions based on a desire to have a bigger baby. Reference made to having a bigger baby was in favour of EBF. Similarly, with respect to economic factors, mothers in the systematic review highlighted an increase in financial freedom after migrating to a HIC as a reason for supplementing with formula early. These mothers suggested that obtaining formula became more easily accessible to them compared to when they were in their home countries as a result of an increased financial flexibility. On the contrary, reference to economic factors impacting on breastfeeding practices in the qualitative study was in favour of breastfeeding, as mothers described the cost effectiveness of breastfeeding to compensate for their ineligibility for financial and economic benefits in the UK.

No information was provided on socio-demographic factors influencing breastfeeding practices in the systematic review and while information on socio-demographics was collected from the mothers in the qualitative study, it had no impact on the breastfeeding beliefs or practices of the mothers.

### Support system

A few similarities were observed between the qualitative study and the systematic review in relation to the sources of support available to the mothers in their new environments which included family and friends, and health professionals. The findings from both studies showed that African mothers do not have access to the same quality of support they have access to in their home countries, but they make efforts to recreate a similar support system. This never really measured up to what was obtainable in their home countries. However, there were a few differences observed in the value of the support received.

In the systematic review, mothers reported that their family and friends sometimes encouraged supplementing with formula based on the belief that breastmilk alone was insufficient to achieve a “plump baby”. Even in instances where mothers were reluctant to offer supplements to the infant, they reported feeling pressured and unable to go against the instructions of experienced mothers in their social circle. This equally meant that the mothers adhered to the advice of older mothers in their social circle over that of health professionals. On the contrary, the mothers in the qualitative study made minimal reference to the size of their infant, and where this was mentioned, it was in support of breastfeeding. Mothers in the qualitative study opined that EBF helped to achieve plump babies and their friends and family strongly encouraged breastfeeding, leading to feelings of pressure for the mothers. Unlike the reports from the systematic review, the mothers in the qualitative study preferred health professionals’ advice, regarding information from their mothers as outdated and not evidence based. However, both studies reported that mothers with previous breastfeeding experiences were able to use their own discretion to navigate all the information they had received and determine the most suitable actions to take based on their individual situation.

Additionally, another source of support was identified in the qualitative study that was not reflected in the systematic review. In the qualitative study, the mothers explained that the church played a vital role in providing support through the breastfeeding process by regularly making meals for the family, being around to help with childcare and for emotional support. Consequently, the study highlighted that Muslim mothers may receive much less support compared to the Christian mothers as this additional layer of support was lacking, implying that there may be differences in the experience of breastfeeding by religion in the UK. Furthermore, while the systematic review identified a change in roles of fathers and mothers post-migration to a HIC, where fathers had started getting involved in childcare and mothers more involved in working, the qualitative study gave no indication of changed roles. The qualitative study reported that fathers were supportive during the breastfeeding process, as did the systematic review, but there was no indication that this was a change resulting from migration to the UK. However, issues around competing demands of having to manage the family, work and others concerns arose in both studies.

### Perception of health professionals

The health professionals’ perception of the breastfeeding practices of African mothers in the systematic review was different from the reports from my health professionals’ qualitative study. In the systematic review, health professionals perceived African mothers as poor breast feeders with a high likelihood to introduce formula early, whereas in the qualitative study, African mothers were perceived as natural breast feeders with a higher likelihood to exclusively breastfeed. Similarly, health professionals reported on the mothers’ preferences on what information or advice to follow. The health professionals in the systematic review affirmed that the mothers trusted their social circle more, and health professionals in the qualitative study affirmed that the mothers were very receptive of health professionals’ advice. However, in both studies, the health professionals expressed a limitation to providing adequate support to African mothers, and the main reason cited was the language barrier. The inability to communicate efficiently with the mothers, despite the use of interpreters (when available), left health professionals unsure whether they had been able to communicate the right messages to the mothers.

Additional factors were highlighted in the qualitative interviews that hindered health professionals from offering adequate support such as a lack of understanding of the challenges the mothers faced and an unwillingness on the part of the mothers to discuss mental health concerns. Health professionals, being unaware of the challenges African mothers faced with the breastfeeding information they were newly exposed to in the UK, came across as laid back in offering support to African mothers, characterising the mothers as self-sufficient and natural breast feeders. Similarly, the unwillingness of African mothers to discuss issues relating to mental health was highlighted as another limitation health professionals faced in offering adequate support to African mothers in the qualitative interviews. This implied that health professionals faced challenges identifying mothers who required mental health support, which may have impacted on their health and their breastfeeding experiences. However, no reference to this was made in earlier studies included in the systematic review.

Following a comprehensive integration of the individual components of this PhD in this chapter, it is evident that there are a lot of similarities between the findings in the systematic review and the qualitative research carried out in this PhD study. However, substantial differences were also recorded many of which can be attributed to a difference in the population in both studies. The systematic review had a very high population of Somali mothers who were mostly Muslims compared to the qualitative study with a high population of mothers from East and West Africa who were mostly Christians. Despite several attempts, as explained in Section 8.3.2, it was not possible to recruit Muslim mothers into the qualitative study and therefore religious comparisons could not be made with the findings of the systematic review. Despite these differences, there was no substantial influence on the interpretation of the findings or on the main concepts arising from the research. This implies that the findings from this study conducted in NE England are very similar to the findings of studies that have been conducted in other areas of the UK and other HICs. The next chapter provides a discussion of the main findings of this PhD study.

# Chapter 8: Overall Discussion

## Chapter Introduction

In this chapter, a summary of the key findings from this PhD study and its contribution to the body of knowledge is discussed. An appraisal of the methods used in this study is presented, highlighting the strengths and limitations of the study. The chapter is concluded by highlighting the implications of this study and recommendations for practice. Thereafter, recommendations for further research are presented.

## Summary of Main Findings

The aim of this study was to investigate the breastfeeding and weaning practices of African immigrant mothers residing in the NE region of England. Being a qualitative study, the findings of this study are a reflection of the experiences of the sample of participants and may vary from the experiences of other African mothers in various other settings.

The first main finding of this PhD is that African mothers perceive breastfeeding as a cultural norm and appreciate it as the natural responsibility of a mother to her infant. This is reflected in the breastfeeding practices of the mothers as all the mothers had initiated breastfeeding. However, EBF for six months was uncommon with only six mothers exclusively breastfeeding for six months. Factors influencing the EBF practices of the mothers include beliefs that breastfed infants still need water, delayed initiation of breastfeeding and refusal of breastmilk by the infant. Mothers were more likely to breastfeed for longer durations except in instances where breast milk supply ceased, or infants refused breast milk. These findings are consistent with the findings from the last Infant Feeding Survey [36] that showed that black minority ethnic mothers had one of the highest breastfeeding initiation rates in the UK, but EBF for six months as recommended by WHO was rarely practiced even among the ethnic minority groups. Additionally, a recent systematic review [243] on the breastfeeding practices of immigrant and non-immigrant mothers, showed that only a marginal difference was observed between the initiation and EBF rates of immigrant and non-immigrant mothers, but a significant difference was observed in the duration of any breastfeeding, consistent with the findings of this study. Studies carried out in Africa [51, 244], observed similar trends, revealing that most African countries have low EBF rates and only a few countries, mostly in East Africa, are on track to achieving the recommended 50% EBF target by year 2025. This indicates that non-adherence to the WHO recommendations on EBF is not a result of migration to the UK and African mothers will benefit from an increased knowledge of EBF and what it entails.

As mentioned earlier in the literature review of this PhD, there are differences in the actual practices and beliefs between and within African countries, such as beliefs around feeding colostrum and water, but these differences were not evident in this study. Rather, the mothers discussed around how their cultures are evidently in support of breastfeeding and the challenges faced attempting to replicate such breastfeeding practices in the UK. The mothers were asked whether they were aware of any cultural practices specific to them and the only practices mentioned related to wet nursing and feeding water. The mothers, however, went on to explain these as practiced by their own mothers, stating that current day African mothers knew better. Although it may seem unrealistic to explain the breastfeeding beliefs and practices of African mothers as though they are a singular entity, this study shows that the positive attitude towards breastfeeding spans across the countries of Africa and mothers should be encouraged to maintain that attitude.

Another main finding of this PhD, is that African immigrant mothers living in the UK are faced with information that challenges their home-country beliefs and practices about breastfeeding, and they are therefore forced to re-create their breastfeeding culture such that they maintain some of their ingrained practices whilst adopting new ideologies from the UK. These mothers are unable to completely change their breastfeeding culture because a lot of their beliefs about breastfeeding have been ingrained from their childhood and form a part of their self-identity. The interpretation of this in the light of Bourdieu’s theory helps to further explain the similar finding in Gallegos et al [94] which showed that African immigrant mothers living in Australia maintained practices from their home countries, whilst also adopting new practices from their host environment. Being in a new environment with different breastfeeding social norms made the mothers question what they had originally believed but was insufficient to completely change their beliefs and attitudes, as these were inherent and part of their very essence. Nevertheless, mothers were challenged to not just passively proceed with ‘common sense’ breastfeeding practices based upon their culture and upbringing but had to actively piece together, using a variety of often conflicting sources, their own path to breastfeeding practices they were comfortable with. Hence, the adoption of a mixture of home- and host-country practices, consistent with findings among Chinese [245] and South Asian Mothers [38].

African mothers in the UK are not only faced with the regular challenges of having a new baby but face additional challenges of experiencing an opposing habitus to theirs. This leads to a need to negotiate a wealth of new information to create an entirely new infant feeding habitus, which is often personalised for each individual as the factors influencing the change in habitus is different for each person. While breastfeeding is considered natural and a cultural norm for every African mother as evidenced in the qualitative interviews and the systematic review carried out earlier in this PhD, living in the UK results in the awareness of a choice to infant feeding. Hence, the mothers become increasingly less likely to find ways to cope with difficulties that arises during breastfeeding. The mothers began considering the suggested options to infant feeding during such difficulty. The longer their stay in the UK, the more time the mothers would have had to consider and negotiate new information and are therefore more likely to have adapted their habitus to incorporate practices within the UK. Findings from this study showed that mothers who had been in the UK for longer and were more acculturated were less tenacious about finding strategies to continue breastfeeding in the face of challenges. Previous studies have reported consistent findings [119, 193, 213, 246-248] of an inverse relationship between acculturation and breastfeeding rates, irrespective of the prevalent breastfeeding practices within the country. For example, Busck-Rasmussen et al [213] observed that native Danish mothers had higher breastfeeding rates compared with immigrant mothers, and acculturation was not in favour of breastfeeding. In a study of South Asian mothers in the UK, the mothers were observed to practice suboptimal breastfeeding practices the more acculturated they were to the UK environment because they did not want to be seen as deviating from the perceived norm of formula feeding [38].

Coupled with this, health professionals’ expectations that African mothers were self-sufficient and natural breast feeders further compounded this as it meant that some of the challenges the mothers faced were missed, which may have impacted the level of support the mothers received. Although the health professionals explained that the support offered to mothers was impartial and was independent of the mothers’ culture, they expressed thoughts that they had less concerns about African mothers as they would have for mothers of other ethnic groups such as Asians. Hence, they may have been less alert to identifying the challenges African mothers faced. Nonetheless, health professionals were perceived to play a major role in influencing the infant feeding decisions of the mothers, consistent with findings from previous studies in the UK [249]. On the contrary, studies included in the systematic review reported that health professionals had less expectations from African mothers, perceiving their culture and traditional practices as having negative influences on their breastfeeding practices. This difference in the perception of health professionals may have resulted from the population included in the studies as Somali mothers (the dominant population in the systematic review) have been shown to have low levels of breastfeeding [250].The health professionals in the UK, as reported in this study, however had poor understanding of the culture of African mothers and were therefore unable to offer the appropriate kind of support to meet the mothers’ needs and diffuse conflicts in their minds.

Additionally, factors that influenced the practices of the mothers in the UK include previous negative breastfeeding experiences and a realisation that breastfeeding was not as easy as they had thought. African mothers having been exposed to breastfeeding from an early age perceived breastfeeding as an easy process that required no skills or learning. However, the realisation that breastfeeding had techniques that needed to be learnt to make the process easy and enjoyable, and was not as easy as they had imagined, the mothers may have had more considerations for other alternatives to breastfeeding. Similarly, having a negative breastfeeding experience within the UK where breastfeeding has been projected as an option rather than a necessity, African mothers considered and opted for alternatives for their subsequent children. However, when a negative experience occurred in their home countries before arrival to the UK, the mothers maintained their breastfeeding beliefs and practices, not opting for breastfeeding alternatives. Therefore, the information received by the mothers in the UK had a big impact on their breastfeeding practices. Although the information was from various sources, often promoting breastfeeding, there appeared to have been some mixed messages which the mothers then had to individually navigate to come up with their most preferred infant feeding culture.

The attitudes towards breastfeeding in public in the UK were slightly varied. Unlike South Asian mothers, who as a result of their culture avoid breastfeeding in public [38], African mothers expressed the acceptance of public breastfeeding in their culture and therefore found it challenging being in an environment where breastfeeding in public was not widely acceptable. All mothers indicated that they would breastfeed in public, but some mothers reported being able to breastfeed openly without the use of aprons or breastfeeding friendly spaces, while others reported the need to use these facilities. What was common to all mothers was that they prioritised the need of their infant and found ways to ensure that their infant’s hunger was satisfied wherever they were, even if it meant going against their personal beliefs to accommodate the feelings of others. On the contrary, mothers in the systematic review felt uncomfortable breastfeeding in public except Muslim mothers who explained that their clothing helped them with breastfeeding in public. This may be explained by the reference to African mothers being looked upon judgementally when seen breastfeeding their infants in public. In this study, however, the use of aprons and/or seeking breastfeeding friendly spaces was attributed to being in the UK environment and was a challenge to the mothers’ habitus. The mothers reported using these facilities mostly for the benefit of passers-by, especially men who may feel uncomfortable at the sight of a mother breastfeeding. This is consistent with the findings of a study carried out in Australia [251], which suggested that the acceptance of breastfeeding in public often comes with the need to adhere to certain social norms – being discrete and covered-up – to avoid discomforting others, guard against judgement and protect oneself. However, the mothers found that being exposed to this practice in the UK influenced their habitus such that they struggled to breastfeed openly on their return to Africa. But this was short-lived for most mothers as they soon felt freer to breastfeed their infants openly, after realising that there were no rules against breastfeeding in public in their home countries. They felt more able to breastfeed freely in public suggesting that uncomfortable onlookers turned away.

Furthermore, the lack of sufficient practical support in the UK, especially during the first year of an infant’s life resulted in sub-optimal breastfeeding practices among African mothers in the UK, similar to the findings from other HICs in the systematic review. In particular, breastfeeding cessation was earlier than planned and prolonged breastfeeding for up to two years was not practiced by most mothers, as is the common practice in Africa [71]. Both mothers and the health professionals recognised that having increased demands either due to the presence of older toddlers or in the form of returning to work or school impacted on the mothers’ ability to continue breastfeeding for as long as they had planned and having sufficient support may have made this different. Consistent findings were observed in the systematic review. The presence of family and friends to offer uninterrupted practical support during the first one year of an infant’s life is a cultural practice among African mothers and not having this in the UK impacted on their infant feeding practices. Although the mothers attempted to re-create a similar support network in the UK as they would have had in their home countries using friends, family and church friends, it was still considered insufficient possibly because friends and family in the UK come and go, and do not necessarily live with the new mother as is practiced in Africa. This resulted in mothers adapting their practices to meet their new environment and led to a deeper appreciation of health professionals’ emotional and technical support. However, this support sometimes translated into pressuring situations for the mothers, which health professionals were unaware of. A similar finding was reported by Condon and colleagues [252] who explained that Asian mothers found health professionals’ support as pressuring.

One important finding of this study is that African mothers were not only changing their habitus while living in the UK, but they return to African and are challenging their past habitus. Although most mothers were able to maintain some of their traditional infant feeding practices, mothers who returned to Africa returned with some of their newly learnt and adopted practices influencing the practices of mothers who remained in Africa. Many of these new practices taken to Africa are not in line with the WHO recommendations for infant feeding and may therefore pose health risks to the infants in Africa. This therefore has some implications for future migrants from Africa to the UK, which is highlighted in section 8.4.

Although many of the findings of this study are similar to those for other ethnic minority groups living in the UK and other HICs [38, 253-255], two findings from this study are specifically important to African mothers’ breastfeeding experiences. Firstly, despite many studies recognising the need for health professionals to understand the traditional customs and unique socio-economic and psychosocial needs of migrant mothers, health professionals in this study not only did not recognise and understand these needs but maintained a position that may have prevented them from recognising that there was an existent need. The health professionals’ perception that African mothers are self-sufficient and requiring minimal support could imply an unconscious neglect of the needs of African mothers, thereby leading to a higher likelihood that these mothers were left to their own navigate their challenges by themselves. According to the narratives of health professionals in this study, health professionals were more alert to the needs and cues from mothers of other ethnic groups, in particular Asians, than they were to African mothers. Additionally, the presumption that African mothers are more likely to EBF is inaccurate as African mothers have been shown to breastfeed for longer durations but not necessarily EBF. These factors raise a strong case for health professionals to lay aside pre-conceived notions of African mothers. Instead, health professionals should recognise the role that the social relationships such as fathers, grandmothers and other female friends and family play in influencing breastfeeding practices and should involve these people in breastfeeding education and information sessions. Furthermore, health professionals should approach every mother as one who may be experiencing inner conflict and need unbiased support from health professionals. There is, therefore, need for more cultural competence training for health professionals to understand the cultural conflicts African mothers may face and ways to support mothers through such difficulties. This may in turn have an impact on reducing mental health concerns among African mothers such as feelings of loneliness.

Secondly, this study is the first study to show an impact of the changing breastfeeding practices of African mothers living in the UK on the practices of their female counterparts living in Africa. While previous studies have indicated an acceptance of prevalent cultural practices in their host countries alongside home-country practices by migrant mothers [38, 253-256], none of these studies showed the impact of this on the prevalent practices in the mothers’ countries of origin. However, this study showed that following an adaptation of breastfeeding practices of African mothers in the UK, mothers returned to Africa and influenced other mothers to adopt Western practices. This has implications for the breastfeeding rates in Africa and the impact this may have on the health of the infants, especially with the current reports of declining rates of breastfeeding in some African countries. Supporting mothers to uphold positive breastfeeding beliefs and practices is a crucial step to improving national and global breastfeeding rates.

## Strengths and Limitations of this Study

### Strengths

The strengths of this PhD are mainly in the methodological approach adopted in the formulation of this thesis. One major strength is the systematic review that was initially conducted to understand the knowledge and experiences of African mothers who live in HICs. This systematic review provided an initial background to understand how infant feeding beliefs and practices may have changed following migration from LMICs to HICs. This knowledge was then fed into the primary data collection phase to investigate the lived experiences of African mothers in the UK. The systematic review strengthens the evidence in this thesis because it provides systematically synthesised data from various studies in different countries to inform the qualitative phase of this research.

In addition, carrying out qualitative interviews of two sets of participants – African mothers and health professionals – is a strength to this study as this made it possible to better contextualise the mothers’ interviews within the UK setting. Selecting African mothers to participate in the interviews using three different approaches ensured that participants were as varied as possible, representing various regions of Africa such as West Africa, East Africa and North Africa. Also, selecting a wide range of health professionals including hospital and community staff meant that the experiences of health professionals equally varied and was not limited to one area of service delivery. Recording all interviews on an audio recorder and producing verbatim transcripts meant that no information was lost during the interview and transcription process.

Furthermore, ensuring that data reached saturation before interviewing ceased indicates that limited additional information could have been obtained during this research process. The use of an inductive approach to data analysis informed the process of determining whether the data had reached saturation, and at the same time produced a data-led approach to generating themes. Finally, the use of a social theory to analyse the findings from this study helps to strengthen the evidence, as it provides deeper meaning into the reasons for the findings obtained from this research. The social theory helps to understand how the African mothers respond to their new environment and the processes they went through to arrive at their current mind sets about infant feeding.

### Limitations

Despite the many strengths of this study, it is not without limitations. Owing to the qualitative nature of this study, the results can only be interpreted in the context from which they emerged. This study recruited participants from the NE of England, where the African population is more limited compared to other parts of the UK such as in London or Manchester. Additionally, not being able to recruit certain demographics of African mothers such as those of higher socio-economic status, of the Islamic religion and from more African countries means that the context to which the findings of this research can be applied are even more limited. Although attempts were made to recruit mothers belonging to these demographics such as requesting that health visitors target the specific demographics as they recruited and contacting community organisations serving higher socio-economic areas of Newcastle, the reduced population of African mothers within the NE of England made this difficult.

Limiting the study participants to only those proficient in the English language is another limitation of this study, as this implies that experiences from those not meeting these criteria could not be captured, which may have been different from what has been reported in this study. Furthermore, collecting data retrospectively may have increased the reporting bias of this study. However, attempts were made to minimise this bias by ensuring that the mothers recruited into the study had their infants within two years prior to the research so that they were still able to recall most of their experiences.

## Implication of Study for Practice

The findings of this study suggest that health professionals play a major role in defining the infant feeding practice and experiences of African mothers living in the UK and certain issues have been presented that may have some implications for practice.

### The question of choice

First, health professionals in this study reported that the guidelines for delivering antenatal care for mothers requires that all mothers are asked what their infant feeding decision is. The findings of this study have however shown that this question causes confusion and uncertainties in the minds of African mothers. They begin to wonder why breastfeeding is being approached as a choice, especially having been exposed to messages that refer to breastfeeding as the better nutrition for infants and being from a culture where breastfeeding is compulsory. Therefore, consideration for cultural differences should be given when approaching the subject of breastfeeding with mothers (as has been shown in previous studies), in particular mothers who may be from cultures where breastfeeding is more widely practiced. Although, asking mothers of their choice of infant feeding method may be unavoidable in practice, it may equally be an opportunity for health professionals to reiterate the benefits of breastfeeding to the African mothers, highlight potential challenges that may be faced in the UK environment and encourage recommended infant feeding practices using their understanding of the mothers’ cultural and traditional preference for breastfeeding. The findings of this study suggests that African mothers hold the information and advice of health professionals very highly, sometimes over that of their family and friends, contrary to what previous studies [39, 42, 122] have reported. Therefore, health professionals need to be mindful of the information and how it is communicated to African mothers, giving consideration to the factors influencing infant feeding choices among this population.

Additionally, in subsequent encounters with African mothers, health professionals should take advantage of the trust that African mothers have in them to build rapport and gain the trust of the mothers. Once trust is gained, optimal breastfeeding practices can be further encouraged by educating African mothers on the details of EBF and WHO recommended breastfeeding practices. According to the findings of this study, African mothers sought evidence-based information to inform their decisions and practices. Highlighting current evidence may therefore be useful to further encourage these mothers to uphold optimal breastfeeding practices. However, care should be taken by health professionals to ensure that they are not putting mothers under pressure to breastfeed. Recognising the challenging situation that African mothers find themselves in being in a new environment and the conflicts that arise from the different information sources and social norms may help health professionals offer appropriate support and guidance to the mothers as they attempt to negotiate the conflicting views. Health professionals should attempt to use every encounter with these mothers to help them resolve conflicting ideas and thoughts they may have.

### Training in cultural differences

Additionally, further training in cultural differences may be required to equip health professionals with the necessary skills to support African mothers as well as mothers from other ethnic groups. The findings from this study show that health professionals may be more willing to offer additional support and encouragement to ethnic minority mothers of Asian origin as compared with mothers of African origin because of the presumption that these mothers have a higher likelihood to supplement with formula. However, this is because the health professionals were unaware and lacked understanding of the struggles that African mothers face, as has been previously reported [255, 257]. Therefore, culture specific training will aid understanding of different cultures, how being in the UK may bring about changes in infant feeding practices and how to appropriately respond to the needs of the mothers in relation to their culture.

Additionally, health professionals need to be aware of the infant feeding practices and perceptions of African mothers, but also need to be aware that these practices are changing over time. Therefore, on-going training to recognise the current practices adopted by African mothers and how these mothers can be adequately supported to encourage best practices may be beneficial. Perhaps health professionals may be able to guide the changes African mothers are making to their practices by offering more tailored support to encourage their pre-existing positive practices.

### Encouraging participation of infant’s father

Furthermore, owing to the insufficiency of practical support African mothers experience in the UK, there was a higher chance of early supplementation and early cessation of breastfeeding. Although the mothers made attempts to seek support from their friends and church groups, they still reported not having sufficient support especially in the night time when friends and family were not available. Encouraging husbands to support and assist mothers during these periods may be beneficial to relieve the mothers of the pressure they feel from not having support at night time. This is particularly important because it is unusual in the African culture to have men get involved in infant care and some men arrive in the UK keeping to this cultural practice and therefore offer little or no support to their partners. In this study, mothers who reported having support from their partners as well as from friends and family were able to breastfeed for longer than mothers who did not have the same level of support. Consideration should be made to include fathers in antenatal sessions in order to re-educate and encourage fathers about the role they play in making infant feeding and infant care less stressful and less burdensome to the mothers. Some mothers reported having their partners attend some breastfeeding sessions which helped to aid understanding of the process and encouraged support from the partner. However, this was done using their individual discretion. Incorporating an antenatal session that not only requires the mother to attend but requires both partners to attend will be useful to re-educate the fathers. During this session, fathers can be informed on the infant feeding plan that has been decided and their role in ensuring that the proposed plan works. Additionally, this may be a time to bond both partners together to make it easier to handle pressure from other family and friends.

### Clarity around the cultural preferences of African mothers

The findings of this study show that African mothers may experience loneliness and some mental health conditions but may not be open about it. One of the reasons mothers may experience emotional concerns is the discovery that breastfeeding is not as easy as they had thought, and any challenges faced during breastfeeding such as insufficient milk supply may further increase the emotions. The mothers referred to the use of wet nurses in Africa to support one another when these sorts of challenges arose. In the UK, such practices are not encouraged. However, health professionals can advise mothers to express breastmilk as often as possible so they can have sufficient to store and also increase their milk supply in the process.

Additionally, health professionals need to recognise the cultural practice of having special diets for breastfeeding mothers to increase milk supply, especially for mothers who have indicated interest in EBF and experience struggles with milk production. Being aware of this preference of African mothers puts health professionals in a better position to offer appropriate information and advice on the need to maintain a healthy balanced diet while breastfeeding. In particular, emphasis should be made on mothers’ increased nutritional requirements during breastfeeding and the fact that the nutrient and caloric adequacy for breastfeeding can be attained from a range of foods [258], including foods that are readily accessible in the UK. Additionally, health professionals can play a role in reassuring mothers of the sufficiency of their milk supply or provide assistance to increasing milk supply where necessary [259].

## Recommended Areas for Future Research

This research has identified some important areas for future research. In the first instance, this research was limited to participants from the NE region of England who have different demographics and deprivation status compared with other areas of England. Further research in other areas of England and the UK such as in London where the standards of living are generally different and the experiences of the mothers may be different will be required to understand if the findings from this study can be generalizable to all African mothers living in the UK. Additionally, I was unable to recruit African mothers of the Islamic religion into this study and as this research has identified, these mothers may have different experiences from Christian African mothers, especially as it relates with support in the UK. Exploring this group of African mothers will help to further understand how religion may impact on breastfeeding practices, and whether there is any difference in infant feeding practices due to religion. Additionally, exploring African mothers of different socio-demographics will help to clarify the role this plays in infant feeding decisions and practices within the UK. Some studies [114, 242] have shown that mothers of higher socio-demographics practice more sub-optimal breastfeeding practices and exploring this among African mothers will help to understand if there is a difference in practice among African immigrant mothers with different socio-demographic status. Similarly, the differences between the beliefs and attitudes of African mothers born in the UK (2nd generation migrants) and African mothers born in Africa (1st generation migrants) should be explored.

Additionally, this study showed that infants’ fathers are a major influence to the mode of infant feeding adopted, as has been reported previously [260]. However, the findings of this study added that African fathers are perceived as authoritative and imposing of their opinions on their partners. Meanwhile, the attitudes of fathers may not be accurately represented when reported by an observer (partner, health professional etc.) as direct interviews have revealed more positive attitudes than partners have reported or expected [261, 262]. Therefore, exploring the knowledge and views of African fathers in the UK towards breastfeeding, and their perceived role in supporting the breastfeeding process will help to understand their attitudes and highlight any gaps in providing holistic breastfeeding support to families.

Another area of further research interest is exploring the practices of African mothers with asylum or refugee seeker status in the UK. The challenges faced by these populations are very often different that those faced by voluntary migrants and understanding if there are any further factors that influence their breastfeeding practices in the UK would be beneficial in order to improve the care and support they are offered. This study identified a few issues with asylum seekers and refugees such as feelings of loneliness, but it was not possible to separate asylum seekers or refugee mothers in this study as participants were not asked about their immigration status.

In the absence of the quantitative data to assess the impact of breastfeeding practices on the health status of infants, a cross-sectional study can be carried out to assess the perception of African mothers regarding the health of their infants at age five. A comparative analysis can then be carried out, comparing the health of Africa-born infants with UK-born infants of African origin to assess the impact of the differences in breastfeeding practices among the two populations. This will provide further evidence into the benefits of breastfeeding and will aid education of African mothers regarding breastfeeding practices.

## Reflexive Account of the Researcher

The role of the researcher in a research process cannot be over-emphasised as the researcher is responsible for many of the decisions relating to the research. As the researcher in this study, this meant that my personal experiences, values, and opinions of the world could have impacted on the decisions and choices I made throughout the research process. Reflexivity is

a researcher's ongoing critique and critical reflection of his or her own biases and assumptions and how these have influenced all stages of the research process [263].

I, therefore, considered my position throughout the research process reflecting and critiquing the impact my personal views may have had on this research and its findings. This was an important continuous step throughout the research process, which offered some degree of transparency about the decisions made during the research and allowed for critical thinking about the reasons behind every action taken during the research.

Firstly, I acknowledged my role as a new mother at the time of this study and how this contributed to the study. Being a first-time mother in the UK gave me an insider status while conducting this research as I had similar experiences with my study participants. This had an influence on the research study as it not only made it easier to collect data from the mothers (as explained in section 3.6.2) but also made me reflect on my personal experience of breastfeeding in the UK. This work gave me a deeper realisation of the role that education had played in my knowledge and beliefs around breastfeeding and breastfeeding in the UK. The more conversations I had with the mothers, the more I was reminded of my knowledge of breastfeeding prior to gaining additional knowledge on breastfeeding during my master’s study when I carried out a systematic review on the effects of breastfeeding in reducing infectious diseases’ incidences during infancy. In carrying out this study, my knowledge of breastfeeding, its benefits and the various classifications of breastfeeding had increased, which had an impact on my attitude towards breastfeeding. For example, I had become more aware that although breastfeeding may not be visibly present in the UK, the policies are supportive of mothers breastfeeding. This gave me more confidence to breastfeed in public compared with mothers in the study who were unsure whether it was permissible for them to breastfeed in public or not. Therefore, unlike most of the mothers that I interviewed, my experiences of breastfeeding in the UK were different and somewhat unique to me. I was quite interested to find out more about the experiences of others and I soon realised that every mother’s experience was as unique and individualised as I felt that mine was.

Despite this, I was able to relate with the some of the emotions the mothers expressed such as the conflicts they faced when offered a choice for breastfeeding. I had a very similar feeling when I was asked what infant feeding method that I had intended to feed my child with. I remember feeling quite confused at the question and wondering if that was at all a question to be asked or a choice to be made. I, therefore, recognise that having had this experience myself may have influenced my perception of how the mothers relayed their experiences of the same situation. There is a chance that the emotions the mothers expressed my have been exaggerated by my own experiences. However, this is akin to qualitative research in that the investment of the interviewer’s identity into the research relationship brings about reciprocity and therefore increased success in learning more about people and their experiences [186].

As a researcher, I tried to continually reflect on my own experiences and on the research process by taking notes and using a research diary to reflect on interviews and my analysis (see sample notes in Appendix 10). I made notes about how my interviews went and the times when I felt they didn’t go so well, I tried to identify what went wrong and what I could have done differently. I recall that during the first few interviews I had, I felt unsure about my processes and whether my prompts in the interviews were adequate. I discussed this with my supervisor, explaining my concerns and why I felt the way I did. We picked up the transcripts of two of the interviews I had completed and read through it, and she reassured me based on the content and flow of the manuscript that I had taken the appropriate approach to the interviews. I soon made this a practice to discuss any concerns I had with my supervisors and this enhanced my reflexivity on my methods. This practice had a large influence on my analysis process. Having to talk about it with my supervisor made me think more deeply about what I had heard the mothers say rather than what I may have expected them to say. Therefore, in subsequent interviews, I was more aware of making assumptions and endeavoured to listen for implicit rather than explicit thoughts.

Similarly, after I stopped interviewing and started to look into the themes that had emerged and writing up the results, the reflexive notes I had taken post- interview helped me to keep track of the interpretations I made, especially as it related to things mothers had said after the recorder had been turned off or implicit thoughts throughout the interview. I continued in my reflexive practice especially during the moments when I felt I had so much data and was struggling to summarise the data into main themes. Once again, I took the approach of discussing with my supervisor who encouraged me to start by just talking about my research and possible findings without looking into a book or note. As I had been through the process of listening and re-listening to the interview recordings, it came quite easy to talk about what I had heard the mothers say. So, I simply talked about it trying not to give any interpretations to what I thought the mothers were saying. This process brought the voices of the individual mothers together and I could very easily see the main themes of the research emerge. Having such discussions with my supervisory team helped me to see more clearly how the different elements came together to form themes, and possible alternative interpretations. I learnt at this point that voicing out my thoughts either by making extensive notes or simply talking about my research, is a very useful process in qualitative research that helps to simplify and manage a very large amount of data.

Following the analysis of the individual sets of data, using Bourdieu’s theory to interpret my findings was another learning path for me. First, I had to learn and thoroughly understand the theory and its application to my research. As I do not have a background in sociology, I felt that this was going to be a daunting process for me. I knew that the focus of my study was not on the sociological interpretation of my findings, but I wanted to ensure that I made the most of the theory to interpret my research. I spent several long days in the library researching about the theory and its application in different research pieces. Although I had read widely about the theory and its application in culture- and nutrition- related research, I needed to understand its direct application to my work. Talking about my understanding of the theory and how I thought it applied to my study was equally what I found most beneficial to this phase of my research. I talked about it with my supervisor and I soon realised that I had more understanding of the theory and how it relates to my study than I thought I did. My insider status in the research also helped me with this process as I could relate with a lot of the theoretical interpretations that emerged. During this phase, I depended a lot on tables, tree diagrams, and sticky notes to bring together the findings from the mothers’ and health professionals’ interviews and explain them in the light of the theory, and also merging my qualitative study findings with the earlier systematic review findings.

In summary, I found that completing this research was a considerable learning curve for me and what I found most useful through the different phases was being able to talk about my research in a non-academic way. Regularly taking notes meant that I was expressing my thoughts exactly as I felt, rather than with a reader in mind. And also, just having sessions with my supervisor where I just talked about my work without thinking about order or composition gave me a lot of clarity on my processes and gave me even more opportunity to consider the role I played in my research.

## Conclusion

In conclusion, this study adds knowledge and depth to previous research studies around the breastfeeding beliefs, attitudes and practices of African mothers living in the UK by identifying how immigration and an exposure to new information challenges the habitus of African mothers, resulting in changed behaviours and practices. The findings of this study have shown that African mothers have an inherent preference for breastfeeding, which is challenged upon arrival in the UK. In particular, offering mothers the choice to decide whether to breastfeed or not creates conflict in the minds of these mothers and they begin to contemplate the option, whereas in their home countries, there was no contemplation. Although, EBF is not a common practice among Africans, prolonged breastfeeding is more widely practiced. However, in this study, prolonged breastfeeding was not as common, which further emphasises that African mothers change their practices after migration to the UK. This may have been due to the conflicting information received by the mothers in the UK and the increased awareness that formula feeding can be opted for. As time is required for the habitus of the mothers to change or be re-structured, the longer the mothers have stayed in the UK, the poorer their breastfeeding practices.

Owing to this, communicating breastfeeding information to African mothers will require tact to ensure that mixed messages are not communicated. An understanding of what is normal to these mothers is required in order to communicate the right information accurately, as this study has shown that some information, although correct, may be perceived differently by African mothers and lead to negative influences on breastfeeding practices. Additionally, health professionals need to be aware that African mothers are more likely to trust the information they supply. They should therefore be more confident in supporting these mothers, whilst being aware that these mothers may appear confident but may be struggling with navigating conflicting information and finding their balance in a different cultural setting.

Health professionals should equally be aware that a change to a person’s habitus takes time and mothers who are having their first birth experience in the UK may still have their habitus intact but the effect of that initial experience may not reflect immediately but may begin to reflect many years afterwards. In order to achieve a long-term improvement in the breastfeeding practices in the UK, African mothers who have arrived the UK with beliefs and behaviours that support breastfeeding need to be supported to uphold such beliefs and practices, irrespective of their length of stay in the UK.

# Chapter 9: Appendices

## Appendix 1: Ethics Approval Letter



|  |  |
| --- | --- |
| Ms. Adefisayo Odeniyi PhD Researcher | Email: hra.approval@nhs.net |

Newcastle University

Institute of Health & Society

Baddiley Clark Building, Richardson Road

Newcastle upon Tyne

NE1 4LP

30 March 2017

Dear Ms Odeniyi

**Letter of HRA Approval**

|  |  |
| --- | --- |
| **Study title:** | **Breastfeeding and weaning practices of African mothers living in the United Kingdom.** |
| **IRAS project ID:** | **200105** |
| **REC reference:** | **16/NE/0402** |
| **Sponsor** | **Newcastle University** |

I am pleased to confirm that **HRA Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications noted in this letter.

**Participation of NHS Organisations in England**

The sponsor should now provide a copy of this letter to all participating NHS organisations in England.

*Appendix B* provides important information for sponsors and participating NHS organisations in England for arranging and confirming capacity and capability. **Please read *Appendix B* carefully**, in particular the following sections:

* *Participating NHS organisations in England* – this clarifies the types of participating organisations in the study and whether or not all organisations will be undertaking the same activities
* *Confirmation of capacity and capability* - this confirms whether or not each type of participating NHS organisation in England is expected to give formal confirmation of capacity and capability. Where formal confirmation is not expected, the section also provides details on the time limit given to participating organisations to opt out of the study, or request additional time, before their participation is assumed.
* *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria) -* this provides detail on the form of agreement to be used in the study to confirm capacity and capability, where applicable.

Further information on funding, HR processes, and compliance with HRA criteria and standards is also provided.

Page **1** of **8**

It is critical that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details and further information about working with the research management function for each organisation can be accessed from [www.hra.nhs.uk/hra-approval.](http://www.hra.nhs.uk/hra-approval)

**Appendices**

The HRA Approval letter contains the following appendices:

* A – List of documents reviewed during HRA assessment
* B – Summary of HRA assessment

**After HRA Approval**

The document *“After Ethical Review – guidance for sponsors and investigators”,* issued with your REC favourable opinion,gives detailed guidance on reporting expectations for studies, including:

* Registration of research
* Notifying amendments
* Notifying the end of the study

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

In addition to the guidance in the above, please note the following:

* HRA Approval applies for the duration of your REC favourable opinion, unless otherwise notified in writing by the HRA.
* Substantial amendments should be submitted directly to the Research Ethics Committee, as detailed in the *After Ethical Review* document. Non-substantial amendments should be submitted for review by the HRA using the form provided on the [HRA website,](http://www.hra.nhs.uk/documents/2014/11/notification-non-substantialminor-amendmentss-nhs-studies.docx) and emailed to hra.amendments@nhs.net.
* The HRA will categorise amendments (substantial and non-substantial) and issue confirmation of continued HRA Approval. Further details can be found on the [HRA website.](http://www.hra.nhs.uk/resources/hra-approval-applicant-guidance/during-your-study-with-hra-approval/)

**Scope**

HRA Approval provides an approval for research involving patients or staff in NHS organisations in England.

If your study involves NHS organisations in other countries in the UK, please contact the relevant national coordinating functions for support and advice. Further information can be found at [http://www.hra.nhs.uk/resources/applying-for-reviews/nhs-hsc-rd-review/.](http://www.hra.nhs.uk/resources/applying-for-reviews/nhs-hsc-rd-review/)

If there are participating non-NHS organisations, local agreement should be obtained in accordance with the procedures of the local participating non-NHS organisation.

**User Feedback**

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: [http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/.](http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/)

**HRA Training**

We are pleased to welcome researchers and research management staff at our training days – see details at<http://www.hra.nhs.uk/hra-training/>

Your IRAS project ID is **200105**.Please quote this on all correspondence.

Yours sincerely

Kevin Ahmed

Assessor

Telephone: 0207 104 8171

Email: hra.approval@nhs.net

*Copy to: Kay Howes, Sponsor Contact, Newcastle University*

*Aaron Jackson, R&D Contact, Newcastle upon Tyne Hospitals NHS Foundation Trust*

*The Newcastle upon Tyne Hospitals NHS Foundation Trust R&D Department*

**Appendix A - List of Documents**

The final document set assessed and approved by HRA Approval is listed below.

|  |  |  |
| --- | --- | --- |
| *Document* | *Version* | *Date* |
| Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) | 1 | 19 July 2016 |
| Interview schedules or topic guides for participants | 2 | 02 December 2016 |
| IRAS Application Form [IRAS\_Form\_02122016] |  | 02 December 2016 |
| IRAS Application Form XML file [IRAS\_Form\_02122016] |  | 02 December 2016 |
| IRAS Checklist XML [Checklist\_02122016] |  | 02 December 2016 |
| Letter from sponsor | 1 | 07 November 2016 |
| Other [Email correspondence providing evidence from Health visiting Team to support with recruiting participants] | 1 | 28 October 2016 |
| Other [Newcastle University Lone working policy] | 1 | 19 July 2010 |
| Other [List of support organisations] | 1 | 14 November 2016 |
| Other [Study Poster] | 2 | 02 December 2016 |
| Other [Cover letter responding to provisional opinion] | 1 | 17 January 2017 |
| Other [Statement of Activities] | 2 | 30 March 2017 |
| Other [Schedule of Events] | 1 | 23 March 2017 |
| Participant consent form | 2 | 02 December 2016 |
| Participant information sheet (PIS) | 2 | 02 December 2016 |
| Referee's report or other scientific critique report [First year progress report - peer reviewed] | 1 | 14 November 2016 |
| Referee's report or other scientific critique report [Review feedback from supervisors, assessors, Head of Postgraduate school and Dean of Faculty of Medical Sciences.] | 1 | 12 May 2016 |
| Research protocol or project proposal | 1 | 14 November 2016 |
| Response to Request for Further Information |  |  |
| Summary CV for Chief Investigator (CI) [Adefisayo Odeniyi CV] | 1 | 14 November 2016 |
| Summary CV for student [A Odeniyi] | 1 | 14 November 2016 |
| Summary CV for supervisor (student research) [J Rankin] | 1 | 07 November 2016 |
| Summary CV for supervisor (student research) [N Embleton] | 1 | 07 November 2016 |
| Summary CV for supervisor (student research) [J Richards] | 1 | 07 November 2016 |
| IRAS 200105, 16.ne.0402, FIFO, 20.01.17 |  | 20 January 2017 |

**Appendix B - Summary of HRA Assessment**

This appendix provides assurance to you, the sponsor and the NHS in England that the study, as reviewed for HRA Approval, is compliant with relevant standards. It also provides information and clarification, where appropriate, to participating NHS organisations in England to assist in assessing and arranging capacity and capability.

**For information on how the sponsor should be working with participating NHS organisations in**

**England, please refer to the, *participating NHS organisations*, *capacity and capability* and *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* sections in this appendix.**

The following person is the sponsor contact for the purpose of addressing participating organisation questions relating to the study:

Name: Kay Howes

Tel: 0191 208 7460

Email: kay.howes@ncl.ac.uk

**HRA assessment criteria**

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **HRA Assessment Criteria** | **Compliant with Standards** | **Comments** |
| 1.1 | IRAS application completed correctly | Yes | Question 5 of the IRAS filter questions has been answered incorrectly. One NHS site will be involved in the project and this specifically involves the Community nursing team. |
|  |  |  |  |
| 2.1 | Participant information/consent documents and consent process | Yes | No comments |
|  |  |  |  |
| 3.1 | Protocol assessment | Yes | No comments |
|  |  |  |  |
| 4.1 | Allocation of responsibilities and rights are agreed and documented | Yes | As the study does not required confirmation of capacity and capability from study sites, no agreements are required.  A Statement of Activities and Schedule of Events have been provided for information only. |
| **Section** | **HRA Assessment Criteria** | **Compliant with Standards** | **Comments** |
| 4.2 | Insurance/indemnity arrangements assessed | Yes | NHS indemnity applies to conduct of the study.  Where applicable,independent contractors (e.g. General Practitioners) should ensure that the professional indemnity provided by their medical defence organisation covers the activities expected of them for this research study |
| 4.3 | Financial arrangements assessed | Yes | No application for external funding has been made.  No study funding will be provided to sites, as detailed at Schedule 1 of the Statement of Activities. |
|  |  |  |  |
| 5.1 | Compliance with the Data Protection Act and data security issues assessed | Yes | No comments |
| 5.2 | CTIMPS – Arrangements for compliance with the Clinical Trials Regulations assessed | Not Applicable | No comments |
| 5.3 | Compliance with any applicable laws or regulations | Yes | No comments |
|  |  |  |  |
| 6.1 | NHS Research Ethics  Committee favourable opinion received for applicable studies | Yes | No comments |
| 6.2 | CTIMPS – Clinical Trials Authorisation (CTA) letter received | Not Applicable | No comments |
| 6.3 | Devices – MHRA notice of no objection received | Not Applicable | No comments |
| 6.4 | Other regulatory approvals and authorisations received | Not Applicable | No comments |

**Participating NHS Organisations in England**

|  |
| --- |
| *This provides detail on the types of participating NHS organisations in the study and a statement as to whether the activities at all organisations are the same or different.* |
| Study documents will not be shared with participating NHS organisations in England because no confirmation of capacity and capability is required (source Statement of Activities v2).    If chief investigators, sponsors or principal investigators are asked to complete site level forms for participating NHS organisations in England which are not provided in IRAS or on the HRA website, the chief investigator, sponsor or principal investigator should notify the HRA immediately at hra.approval@nhs.net. The HRA will work with these organisations to achieve a consistent approach to information provision. |

**Confirmation of Capacity and Capability**

|  |
| --- |
| *This describes whether formal confirmation of capacity and capability is expected from participating NHS organisations in England.* |
| The HRA has determined that participating NHS organisations in England **are not expected to formally confirm their capacity and capability to host this research,** because support between the Chief Investigator and the Community nursing team has already been identified and agreed.   * The HRA has informed the relevant research management offices that you intend to undertake the research at their organisation. However, you should still support and liaise with these organisations as necessary. * Following issue of the Letter of HRA Approval the sponsor may commence the study at these organisations when it is ready to do so. * The document “[Collaborative working between sponsors and NHS organisations in England for HRA Approval studies, where no formal confirmation of capacity and capability is expected”](http://www.hra.nhs.uk/about-the-hra/our-plans-and-projects/assessment-approval/#Resources) provides further information for the sponsor and NHS organisations on working with NHS organisations in England where no formal confirmation of capacity and capability is expected, and the processes involved in adding new organisations. Further study specific details are provided the *Participating NHS Organisations* and *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* sections of this Appendix. |

**Principal Investigator Suitability**

|  |
| --- |
| *This confirms whether the sponsor position on whether a PI, LC or neither should be in place is correct for each type of participating NHS organisation in England and the minimum expectations for education, training and experience that PIs should meet (where applicable).* |
| The Sponsor has assessed that the Chief Investigator will be responsible for all activities performed at study sites.    GCP training is not a generic training expectation, in line with the [HRA statement on training expectations.](http://www.hra.nhs.uk/resources/before-you-apply/roles-and-responsibilties/researcher-suitability-and-training/) |

**HR Good Practice Resource Pack Expectations**

|  |
| --- |
| *This confirms the HR Good Practice Resource Pack expectations for the study and the pre-engagement checks that should and should not be undertaken* |
| Where arrangements are not already in place, network staff (or similar) undertaking any of the research activities listed in A18 or A19 of the IRAS form would be expected to obtain an honorary research contract from one NHS organisation (if university employed). |

**Other Information to Aid Study Set-up**

|  |
| --- |
| *This details any other information that may be helpful to sponsors and participating NHS organisations in England to aid study set-up.* |
| The applicant has indicated that they do not intend to apply for inclusion on the NIHR CRN Portfolio. |

## Appendix 2: Participants’ Information Leaflets (PIL)

### PIL for mothers



Breastfeeding and weaning practices of African mothers living in the United Kingdom

**Participant Information Leaflet**

You are being invited to take part in a research study. The study will involve talking to a PhD student researcher from the Institute of Health & Society at Newcastle University about your experiences of breastfeeding and weaning (stopping breastfeeding). Before you decide whether or not you wish to take part, it is important for you to know why we want to carry out this research and what taking part would mean for you.

This leaflet is for you to keep. Please read it carefully and take time to decide if you want to take part in the study or not.

This leaflet is divided into two parts:

Part 1 tells you the purpose of this study and what will happen to you if you take part.

Part 2 gives you more detailed information about how the study will be run.

Feel free to ask us if there is anything you don’t understand or if you would like more information.

***Thank you for reading this leaflet***

**PART ONE**

**What is the study about?**

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

Breastfeeding is a healthy and low-cost way to provide infants with the nutrients they require in their early lives. But breastfeeding practices vary from region to region across the world. For mothers who have come to live in the UK from a different country, it is uncertain how the difference in environment and culture may impact on their infant feeding practices. This study aims to understand more fully the beliefs, experiences and practices of mothers from the African continent who are living in the UK. The outcome of the research may help health professionals who provide care and health services to mothers of African origin living in the UK who are pregnant or have infants, to policy makers and health care planners to make provision for immigrant mothers in care planning.

**Why have I been asked to take part in the study?**

You have been asked to take part because you have had a baby within the last 12 months and you are from Africa.

**Do I have to take part?**

No, it is up to you to decide. I will describe the study and go through the information leaflet with you, which you can keep. If you decide to take part, an initial verbal consent will be required from you allowing the researcher, Fisayo Odeniyi (her photo is overleaf), to contact you via telephone or letter to discuss the study in more detail. If you are still interested in continuing with the study after this discussion, arrangements will be made for an interview to take place at a time and place most convenient for you and you will be required to sign a written consent form just before the start of the interview. You are free to change your mind and withdraw your consent at any time within one month from your interview date; you will not need to give a reason. If you decide not to take part in the study, any data from your interview will be destroyed and will not be used in the final write-up, provided the decision is communicated to Fisayo within one month from the date of the interview. A decision to withdraw or a decision not to take part will not affect any care you are receiving.

***What will happen to me if I take part?***



If you agree to take part, Fisayo will arrange with you a convenient time to meet – this meeting will be entirely separate from any care you are receiving. The interview will take about one hour and will take place at a time and location of your choice. This may be a quiet room at Newcastle University, within your own home, or a quiet room at a community location, whichever is most convenient for you.

At the beginning, Fisayo will ask you to sign a consent form for the study. You will be given a copy of the consent form to keep. I would like to tape record the discussion about your views and experiences of breastfeeding. This recording will be permanently deleted as soon as I have prepared a written word-for-word version (transcript) of the recording and analysis has been carried out. All personal data will be removed from transcripts and analysis. If you would like to invite a supportive person (e.g. a friend or relative) to be with you during the interview, you are welcome to do so.

The interview can be postponed or ended at any point. A copy of the interview transcript will be made available to you if you would like to have one.

***What are the potential advantages or risks to me taking part?***

This study will not help you directly, but the findings of this study could help improve services in the future for mothers who have come from African countries to live in the UK, as well as for their infants to receive the best nutrition possible.

***What if there is a problem?***

Any complaints about the way you have been dealt with during the study or any possible harm you may suffer will be addressed. Detailed information is given in Part 2.

***Will my taking part in this study be kept confidential?***

Yes. All information collected about you during this research will be kept confidential. Detailed information is given on this in Part 2.

***Who can I contact for further information about the study?***

If you are interested in the study and would like to know more, please contact Fisayo on the telephone number given to discuss the study in more detail before agreeing to participate. If, after this discussion, you are still interested, Fisayo will arrange a convenient time to come and see you and undertake the interview.

If you decide not to take part in the study, you will not need to do anything. However, if you do change your mind at any time, please contact Fisayo and she will discuss the study in more detail with you.

If you have any questions, please feel free to contact Fisayo using the following details:

Fisayo Odeniyi,

Institute of Health & Society,

Baddiley-Clark Building

Newcastle University,

NE2 4AX

Telephone: 0191 208 5267

Mobile: 07896418138

Email: [a.o.odeniyi2@ncl.ac.uk](mailto:judy.richards@ncl.ac.uk)

**This completes part 1 of the Information Leaflet. If the information in Part 1 has interested you and you are considering taking part in the study, please read the additional information in Part 2 before making your final decision.**

**PART 2**

**What if there is a problem?**

If you have a concern about any aspect of this study you should speak to the researcher who will do their best to answer your questions. Fisayo’s contact details are on page 4. If you wish to speak to someone other than Fisayo, please contact:

Judith Rankin

Professor of Maternal & Perinatal Epidemiology

Institute of Health & Society

Baddiley-Clark Building

Newcastle University

Newcastle upon Tyne

NE4 2AX

Tel: 0191 208 5267

Email: [judith.rankin@ncl.ac.uk](mailto:judith.rankin@ncl.ac.uk)

**Will my taking part in this study be kept confidential?**

After the interview takes place, a written record of what has been said is produced (this is known as a transcript) from audio recordings. Transcripts obtained will remove any identifiable personal data and will be permanently deleted after transcription and analysis. Only Fisayo – the lead researcher will have access to information where you are identified as a person taking part in the study.

It is possible that quotations from things you said during the interview will be used in any publications from the study. It will not be possible for anyone to identify you in any of the quotes and no-one else will know you have taken part in the study. Anonymous data will be destroyed securely when the study has ended.

Confidentiality may be breached if a situation that poses harm or risk of harm to you or any child/children under your care is disclosed at any stage of the research process. This is in accordance with the Children Act (1989). In such instance, Fisayo will discuss the situation first with her supervisors and may need to go further to discuss with the Child or Adult safeguarding team (as may be required required) located within the region.

***What happens to the results of the study?***

The study will take two years to complete and is due to finish in September 2018. The results of the study will be available to all those who have taken part if they want to have them. The study will also be published in scientific journals and presented at scientific conferences. You will not be identified in any information written about the study.

***Who is organising the study?***

The research forms part of a PhD study under the supervision of the Institute of Health & Society, Newcastle University.

***Who has reviewed the study?***

The study has been reviewed and has received ethical approval by the NHS Research Committee – Newcastle and North Tyneside 2.

Thank you for taking the time to read this Participant Information Leaflet. This Leaflet is yours to keep.

### PIL for health professionals

NCL logo

Breastfeeding and weaning practices of African mothers living in the United Kingdom

**Participant Information Leaflet – Health Professionals**

You are being invited to take part in a research study. The study will involve talking to a PhD student researcher from the Institute of Health & Society at Newcastle University about your experiences providing care and support on breastfeeding to mothers of African origin. Before you decide whether or not you wish to take part, it is important for you to know why we want to carry out this research and what taking part would mean for you.

This leaflet is for you to keep. Please read it carefully and take time to decide if you want to take part in the study or not.

This leaflet is divided into two parts:

Part 1 tells you the purpose of this study and what will happen to you if you take part.

Part 2 gives you more detailed information about how the study will be run.

Feel free to ask us if there is anything you don’t understand or if you would like more information.

***Thank you for reading this leaflet***

**PART ONE**

**What is the study about?**

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

Breastfeeding is a healthy and low-cost way to provide infants with the nutrients they require in their early lives. But breastfeeding practices vary from region to region across the world. For mothers who have come to live in the UK from a different country, it is uncertain how the difference in environment and culture may impact on their infant feeding practices. This study aims to explore the views and experiences of health professionals, particularly post-partum nurses involved in providing breastfeeding care and support to mothers from the African continent who are living in the UK. The outcome of the research may help inform the practice of health professionals who provide care and health services to mothers of African origin living in the UK who are pregnant or have infants, as well as policy makers and health care planners to make provision for immigrant mothers in care planning.

**Why have I been asked to take part in the study?**

You have been asked to take part because you provide breastfeeding advice and support post-partum to mothers of African origin.

**Do I have to take part?**

No, it is up to you to decide. I will describe the study and go through the information leaflet with you, which you can keep. If you decide to take part, the researcher, Fisayo Odeniyi (her photo is overleaf) will contact you via telephone or letter to discuss the study in more detail. If you are still interested in continuing with the study after this discussion, arrangements will be made for an interview to take place at a time and place most convenient for you. The interview could be conducted on a one-to-one basis or as a group, depending on your preference and the availability of interested health professionals for a group discussion. You will be required to sign a written consent form just before the start of the interview. You are free to change your mind and withdraw your consent at any time within one month from your interview date; you will not need to give a reason. If you decide not to take part in the study, any data from your interview will be destroyed and will not be used in the final write-up, provided the decision is communicated to Fisayo within one month from the date of the interview.

***What will happen to me if I take part?***



If you agree to take part, Fisayo will arrange with you a convenient time to meet. The interview will take about one hour and will take place at a time and location of your choice. This may be a quiet room at Newcastle University or within your work place, whichever is more convenient for you (and other participating health professionals if appropriate), provided approval has been granted for the study to be conducted on your work premises.

At the beginning, Fisayo will ask you to sign a consent form for the study. You will be given a copy of the consent form to keep. I would like to tape record the discussion about your views and experiences of providing breastfeeding support to African mothers. This recording will be permanently deleted as soon as I have prepared a written word-for-word version (transcript) of the recording and analysis has been carried out. All personal data will be removed from transcripts and analysis. If you would like to invite a supportive person (e.g. a friend or colleague) to be with you during the interview, you are welcome to do so.

The interview can be postponed or ended at any point. A copy of the interview transcript will be made available to you if you would like to have one.

***What are the potential advantages or risks to me taking part?***

This study will not help you directly, but the findings of this study could help improve services in the future for mothers who have come from African countries to live in the UK, as well as for their infants to receive the best nutrition possible.

***What if there is a problem?***

Any complaints about the way you have been dealt with during the study or any possible harm you may suffer will be addressed. Detailed information is given in Part 2.

***Will my taking part in this study be kept confidential?***

Yes. All information collected about you during this research will be kept confidential. Detailed information is given on this in Part 2.

***Who can I contact for further information about the study?***

If you are interested in the study and would like to know more, please contact Fisayo on the telephone number given to discuss the study in more detail before agreeing to participate. If, after this discussion, you are still interested, Fisayo will arrange a convenient time to come and see you and undertake the interview.

If you decide not to take part in the study, you will not need to do anything. However, if you do change your mind at any time, please contact Fisayo and she will discuss the study in more detail with you.

If you have any questions, please feel free to contact Fisayo using the following details:

Fisayo Odeniyi,

Institute of Health & Society,

Baddiley-Clark Building

Newcastle University,

NE2 4AX

Telephone: 0191 208 5267

Mobile: 07896418138

Email: [a.o.odeniyi2@ncl.ac.uk](mailto:judy.richards@ncl.ac.uk)

**This completes part 1 of the Information Leaflet. If the information in Part 1 has interested you and you are considering taking part in the study, please read the additional information in Part 2 before making your final decision.**

**PART 2**

**What if there is a problem?**

If you have a concern about any aspect of this study you should speak to the researcher who will do their best to answer your questions. Fisayo’s contact details are on page 4. If you wish to speak to someone other than Fisayo, please contact:

Judith Rankin

Professor of Maternal & Perinatal Epidemiology

Institute of Health & Society

Baddiley-Clark Building

Newcastle University

Newcastle upon Tyne

NE4 2AX

Tel: 0191 208 5267

Email: [judith.rankin@ncl.ac.uk](mailto:judith.rankin@ncl.ac.uk)

**Will my taking part in this study be kept confidential?**

After the interview takes place, a written record of what has been said is produced (this is known as a transcript) from audio recordings. Transcripts obtained will remove any identifiable personal data and will be permanently deleted after transcription and analysis. Only Fisayo – the lead researcher will have access to information where you are identified as a person taking part in the study.

It is possible that quotations from things you said during the interview will be used in any publications from the study. It will not be possible for anyone to identify you in any of the quotes and no-one else will know you have taken part in the study. Anonymous data will be destroyed securely when the study has ended.

Confidentiality may be breached if a situation that poses harm or risk of harm to you or any child/children under your care is disclosed at any stage of the research process. This is in accordance with the Children Act (1989). In such instance, Fisayo will discuss the situation first with her supervisors and may need to go further to discuss with the Child or Adult safeguarding team (as may be required required) located within the region.

***What happens to the results of the study?***

The study will take two years to complete and is due to finish in September 2018. The results of the study will be available to all those who have taken part if they want to have them. The study will also be published in scientific journals and presented at scientific conferences. You will not be identified in any information written about the study.

***Who is organising the study?***

The research forms part of a PhD study under the supervision of the Institute of Health & Society, Newcastle University.

***Who has reviewed the study?***

The study has been reviewed and has received ethical approval by the NHS Research Committee – Newcastle and North Tyneside 2 (REF: 16/NE/0402).

Thank you for taking the time to read this Participant Information Leaflet. This Leaflet is yours to keep.

## Appendix 3: Study Poster

**Are you interested in taking part in this research project?**

**BREASTFEEDING PRACTICES OF AFRICAN MOTHERS LIVING IN THE UK**

**THE STUDY**

Breastfeeding is one healthy and low-cost way to provide infants with the nutrients they require in their early lives. But breastfeeding practices vary from region to region across the world. It is unclear how the infant feeding culture in the UK may impact on the infant feeding beliefs and practices among those who have moved here from other countries. This study aims to understand the beliefs, experiences and practices of African mothers who are living in the UK. Findings may help to inform health care planning.

**WHO IS CONDUCTING THE STUDY?**

I (Fisayo Odeniyi) am a PhD student at the Institute of Health & Society, Newcastle University and I am leading this project.

**WHAT HAPPENS IF YOU DECIDE TO TAKE PART?**

If you agree to take part, I will find a convenient place and time to meet with you to carry out an interview, which will be tape recorded and will take about one hour to complete. I am interested to know how you have fed your baby since birth and your thoughts around breastfeeding. I can share a copy of the interview transcript with you if you would like to have one.

If you are a mother from the African continent with a child over six months of age and are interested in this study, please tear off a slip below and get in contact with me using the details provided.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 | Fisayo Odeniyi  07896418138 |

## Appendix 4: Topic Guides

### Topic guide for mothers’ interviews



Breastfeeding and weaning practices of African mothers living in the United Kingdom.

**Semi-Structured Interview - Topic Guide**

* Interviewer extends a special thanks to mother for agreeing to take part in the research and explains that one of the aims of the study is to understand the views and experiences of mothers around breastfeeding to help inform breastfeeding decisions and improve breastfeeding practices among mothers of African origin.
* Make the point that they don’t have to answer all questions.
* *Interviewer introduces herself, outlines the study and explains that they will receive a summary of the results if they would wish to have one.*

Explain use of the tape recorder – the interview is being tape recorded so I have an accurate account of what you have said and I don’t have to take down loads of notes. Interviews will be anonymised when they are typed up prior to analysis (i.e. their names and any other information that could identify them) are taken out.

* Assure confidentiality. No information will be given to your GP without permission. However, your GP may need to be notified if information provided by you is identified as posing harm to you or a child under your care, such as risk or potential for abuse. In this instance, confidentiality will be breached for the purpose of your and/or your child’s safety.
* Ask whether they have any more questions about the study?
* Ask to sign the consent form.
* Explain that the interview can be ended or postponed at anytime. This will not affect their care in anyway.
* *For interviews conducted by phone the PI will thank the participant and clarify the aims of the interview etc. The PI will confirm they are speaking to the correct participant by asking them to briefly describe their background i.e. ‘can you tell me a little bit about yourself, where you were born and where you live now and how many children you have’. Provided the responses given meet the inclusion criteria to be interviewed, they will be considered eligible for interviewing.*

***Introduction***

* Can you tell me a little about yourself?
* When did you move to the UK?
* From what country did you come?
* Do you have any other family living in the UK?
* Education?
* How many children do you have?
* Did you have them all in the UK?

***Knowledge about breastfeeding***

* What do you know about breastfeeding? How did you first learn about breastfeeding? Do you think breastfeeding is necessary and why?
* Have you ever heard of exclusive breastfeeding? How would you describe ‘exclusive breastfeeding’? Are you aware of any other classifications of breastfeeding apart from exclusive breastfeeding?
* How do you feel about breastfeeding?
  + Sometimes, difficulties may arise whilst trying to breastfeed. Have you had any difficulties breastfeeding?
  + What kind of difficulties and how did you deal with them?

*If migrated in adulthood:*

* Did you have any children before coming to live in the UK?

IF YES,

* Did you breastfeed these children?
* If yes, can you describe your breastfeeding experience? (How long did you breastfeed for? What mode of breastfeeding? Why the choice to breastfeed or not?)
  + Did you experience any difficulties breastfeeding? (Leaky breasts, latching difficulties etc) How did you deal with these?
* Can you identify any factors that increased your motivation to breastfeed or continue breastfeeding?
* Did you encounter any challenges or barriers to breastfeeding?
  + If yes, how did you overcome these?
* Did you have any expectations about breastfeeding and how your infant should behave? Did this influence your breastfeeding practice?
* Did you receive any support for breastfeeding?
  + If yes, what kind of support did you receive and from who/where (Names are not required, only their relationship to you is required. Please do not mention any names)? For how long were you supported to continue breastfeeding?
* Can you tell me about your weaning process – stopping breastfeeding? (When did you begin weaning your infant? What did you wean your infant with?)
  + What were the factors associated with your weaning practices (e.g returning to work, difficulty breastfeeding, pregnancy etc)
* Are you aware of any cultural factors in your home country that could have influenced your breastfeeding/weaning practices? How did you respond to these cultural factors?

IF NO, proceed to questions on experiences in the UK.

*If migrated as a child OR if born in the UK*

What was your knowledge of breastfeeding whilst growing up?

***Experience of breastfeeding and weaning in the UK***

* Can you describe your breastfeeding experience with your last baby (whilst living in the UK)?
* When did you make the decision to breastfeed or not?
* Why did you decide/not decide to breastfeed?
* How long did you breastfeed? Exclusive or not?
* Did you experience any difficulties breastfeeding? (Leaky breasts, latching difficulties etc). How did you deal with these?
* Did you have reason to breastfeed in a public space? How did you feel about this?
* Would you say you received sufficient guidance on breastfeeding prior to and after delivery? Can you provide more details?
* What factors do you think may have influenced your decision to breastfeed or not? (previous knowledge, family, friends, culture from home country, culture in UK, economic factors, availability of formula milk etc)
* Any motivators?
* Barriers?
* Support?

Culture/Traditions – giving water/herbs/honey etc, rituals etc, beliefs?

* Culture/background?
* Society?
* Employment?
* Has your infant been weaned from breast milk?
* If yes, can you describe the weaning process? (When did you begin weaning your infant? What did you wean your infant with? What were the factors associated with your weaning practices (e.g returning to work, difficulty breastfeeding, pregnancy etc)

***Support and guidance***

* Would you say that you received sufficient support to encourage breastfeeding your infant here in the UK? Can you give me some more details? Who provided support? What type of support was provided? (Health professionals, family etc. Names are not required, only their relationship to you is required. Please do not mention any names).
* How long did the support last? Would you say it lasted for a sufficient time?
* What other support would you have liked to have received?

***Home country practices Versus UK practices***

* Are there any particular breastfeeding practices in your home country that you are aware of?
* Do you think the breastfeeding experiences in your home country are similar or different from the experiences you have had in the UK? Can you tell me more?
* Are there any factors that you think may have improved your breastfeeding experience in the UK?
* What do you think of the younger generation? Any change in practices?

***End of interview***

* I have reached the end of my questions. Is there anything else you would like to add?
* How did you feel about the interview?
* Are there any questions you would like to ask me about the study?
* Thank them for giving up their time and supporting the study.
* Ask them if they still agree for the interview to be analysed.
* Ask them whether they would like a summary of the findings at the end of the study.
* Ask whether they know of any other persons who may be interested in participating in the study.

### Topic guide for health professionals

NCL logo

Breastfeeding and weaning practices of African mothers living in the United Kingdom.

**Health Professionals Topic Guide**

**Semi-Structured Interview**

* Interviewer extends a special thanks to participating Health Professional for agreeing to take part in the research and explains that one of the aims of the study is to understand the perceptions of Health Professionals about the breastfeeding practices adopted by African mothers living in the United Kingdom, in order to inform policy and practice around the care and support offered to mothers of African origin.
* Make the point that they don’t have to answer all questions.
* *Interviewer introduces herself, outlines the study and explains that they will receive a summary of the results if they would wish to have one.*

Explain use of the tape recorder – the interview is being tape recorded so I have an accurate account of what you have said and I don’t have to take down loads of notes. Interviews will be anonymised when they are typed up prior to analysis (i.e. their names and any other information that could identify them) are taken out.

* Assure confidentiality.
* Ask whether they have any more questions about the study?
* Ask to sign the consent form.

***Introduction***

* Can you tell me a little about yourself and your work role?
* What is your actual job title?
* How long have you been working in this role?
* What is your role in providing breastfeeding support to mothers post-partum?
* How often do you provide this support to African mothers?

***Experience working with African mothers***

* Are you aware of any breastfeeding and infant feeding guidelines? Can you provide some more details? How often do you recommend the guidelines to your patients? What about in instances of unforeseen birth outcomes such as low birth weight, premature birth?
* How do you perceive that African mothers respond to these guidelines?
* What is your perception of the infant feeding practices adopted by African mothers (any patterns)?
* Are you aware of any cultural or traditional practices among these mothers that influences their breastfeeding practice?
* Are you aware of any barriers or motivators to breastfeeding among African mothers? Do you think that breastfeeding in public may be a barrier to breastfeeding in this population? Can you provide some more details please? What about mothers of the Islamic Religion?
* Are you aware of any specific issues or difficulties or needs among this group of mothers? Does this bring about any conflicts with promoting breastfeeding? If yes, how is a balance created between the guidelines and the specific needs/issues among these mothers?
* Are there any other challenges or concerns that you may have identified?

***Providing support***

* What support do you provide to mothers regarding infant feeding? (dealing with difficulties, the breastfeeding process etc)
* How long does this support last?
* Do you think that the support available/provided influences the breastfeeding practices adopted by African mothers? In what way(s)?

***Recommendations***

* Is there need for any special or focused attention/support for African mothers compared to mothers of other ethnic origins or background population?
* What in your opinion would help improve services and breastfeeding rates among these mothers?
* Are there any things that you will like to be done differently?

***End of interview***

* I have reached the end of my questions. Is there anything else you would like to add?
* How did you feel about the interview?
* Are there any questions you would like to ask me about the study?
* Thank them for giving up their time and supporting the study.
* Ask them if they still agree for the interview to be analysed.
* Ask them whether they would like a summary of the findings at the end of the study.
* Ask whether they know of any other persons who may be interested in participating in the study.

## Appendix 5: Consent Forms

### Mothers’ consent forms



**Consent form for participating mothers to be interviewed**

**Title of project:**

Breastfeeding and weaning practices of African mothers living in the United Kingdom.

**Name of researcher:**

Adefisayo Odeniyi

Please initial box

1. I confirm that I have read and understand the participant information sheet dated 14th November 2016 for the above study and had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.

3. I confirm that I agree to being interviewed by the researcher, Fisayo Odeniyi.

4. I confirm that I agree to the interview being audio recorded.

5. I understand that small sections of my interview (‘quotes’) may be used in published writing about the study, and that I will not be identified at any time.

6. I agree to take part in the above study.

Please print your name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Participating mother Date Signature

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Researcher upon receipt Date Signature

### Health professionals’ consent form



**Consent form for Health Professional to be interviewed**

**Title of project:**

Breastfeeding and weaning practices of African mothers living in the United Kingdom.

**Name of researcher:**

Adefisayo Odeniyi

Please initial box

1. I confirm that I have read and understand the participant information sheet dated 30th October 2017 for the above study and had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.

3. I confirm that I agree to being interviewed by the researcher, Adefisayo Odeniyi.

4. I confirm that I agree to being interviewed as part of a group **(if applicable)**

5. I confirm that I agree to the interview being audio recorded.

6. I understand that small sections of my interview (‘quotes’) may be used in published writing about the study, and that I will not be identified at any time.

7. I agree to take part in the above study.

**Please print your name**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Participating Health Professional Date Signature

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Researcher upon receipt Date Signature

## Appendix 6: Sample Search Strategy in Medline.

|  |  |
| --- | --- |
| 1 | exp Breast Feeding/ |
| 2 | exp Milk, Human/ |
| 3 | breast milk.mp. |
| 4 | exp Colostrum/ |
| 5 | exp Bottle Feeding/ |
| 6 | exp Health Knowledge, Attitudes, Practice/ |
| 7 | exp Knowledge/ |
| 8 | exp Behavior/ |
| 9 | exp Europe/ |
| 10 | exp North America/ |
| 11 | exp Australia/ |
| 12 | exp Developed Countries/ |
| 13 | exp African Continental Ancestry Group/ |
| 14 | black.mp. |
| 15 | african\*.mp. |
| 16 | exp Lactation/ |
| 17 | exp Weaning/ |
| 18 | infant nutrition.mp. |
| 19 | exp Breast Milk Expression/ |
| 20 | exp Culture/ |
| 21 | exp Attitude/ |
| 22 | barrier$.mp. |
| 23 | benefit$.mp. |
| 24 | facilitat$.mp. |
| 25 | hinderance$.mp. |
| 26 | challenge$.mp. |
| 27 | experience$.mp. |
| 28 | exp Motivation/ |
| 29 | motivat$.mp. |
| 30 | limitiation$.mp. |
| 31 | breastfeed$.mp. |
| 32 | breast-feed$.mp. |
| 33 | breast feed$.mp. |
| 34 | breast$feeding.mp. |
| 35 | infant feed$.mp. |
| 36 | lactat$.mp. |
| 37 | exp Central America/ |
| 38 | exp United States/ |
| 39 | exp New Zealand/ |
| 40 | exp Africa/ |
| 41 | exp Ethnic Groups/ |
| 42 | exp Minority Groups/ |
| 43 | ethnic$.mp. |
| 44 | exp "Emigrants and Immigrants"/ |
| 45 | social identification/ |
| 46 | migra$.mp. |
| 47 | wet nursing.mp. |
| 48 | wet nurse.mp. |
| 49 | infant nurs\*.mp. |
| 50 | baby nurs\*.mp. |
| 51 | exp Infant Care/ |
| 52 | breast#feeding.mp. |
| 53 | 6 or 7 or 8 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 |
| 54 | 9 or 10 or 11 or 12 or 37 or 38 or 39 |
| 55 | 13 or 14 or 15 or 40 or 41 or 42 or 43 or 44 or 45 or 46 |
| 56 | 1 or 2 or 3 or 4 or 5 or 16 or 17 or 18 or 19 or 31 or 32 or 33 or 34 or 35 or 36 or 47 or 48 or 49 or 50 or 51 or 52 |
| 57 | 53 and 54 and 55 and 56 |
| 58 | limit 57 to humans |
| 59 | practic$.mp. |
| 60 | pattern$1.mp. |
| 61 | 6 or 7 or 8 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 59 or 60 |
| 62 | 54 and 55 and 56 and 61 |
| 63 | limit 62 to humans |

## Appendix 7: Data Extraction And Quality Assessment Tools.

### Quantitative data extraction tool

|  |  |
| --- | --- |
| **Study Reference** | |
|  | |
| **Reviewer Details** | |
| Name of Reviewer |  |
| Date of Review |  |
| **Study Context** | |
| Research Question / Aim |  |
| Location of study *(i.e. country, region)* |  |
| Years of study *(N.B. may be different to year of publication)* |  |
| Study setting |  |
| Target Population |  |
|  | |
| Type of study *(e.g retrospective, prospective, cohort)* |  |
| Participants |  |
| * Number |  |
| * How selected |  |
| Outcome(s) |  |
| Data Collection: |  |
| * Source *(e.g. primary, secondary)* |  |
| * Tools used in data collection *(e.g. survey)* |  |
|  | |
| Frequency of data collection (e.g. number of surveys, time frame for observations) |  |
| Sample size (and attrition) |  |
| Relevant Participant characteristics (e.g. profession, patient group, demographics) |  |
|  | |
| How are results presented? |  |
| Summary of main findings according to author |  |
| * Proportion breastfeeding or not (exclusive breastfeeding? Predominant or mixed feeding?) |  |
| * Duration of breastfeeding |  |
| * Reasons for not breastfeeding/ breastfeeding cessation |  |
| * Age at complementary feeding |  |
| * Complementary foods given |  |
| * Other findings |  |
| Author’s conclusions |  |
| Other | |
| Possible new includes |  |
| Background papers |  |

### Qualitative data extraction tool

|  |  |
| --- | --- |
| **Reviewer Details** | |
| Name of Reviewer |  |
| Date of Review |  |

|  |  |  |
| --- | --- | --- |
| **Study Reference/Title** | | |
|  | | |
| **Study Context** | | |
| Research Question / Aim |  | |
| Location of study *(i.e. country, region)* |  | |
| *Study setting* |  | |
| Target Population |  | |
| *Study duration* |  | |
| **Study Design** | | |
| Theoretical approach / methodology |  | |
| Data Collection: |  | |
| * Method *(e.g. interview, focus group, observation)* |  | |
| * Tools used in data collection *(e.g. . interview schedules, field notes, audio recordings)* |  | |
| * What has been counted as data? *(e.g. . verbatim transcripts, fieldwork notes, researcher reflexive diaries)* |  | |
| Sampling and recruitment strategy:   * Was a sampling and/or recruitment strategy used? Justified? * Inclusion and exclusion criteria? * Justification for sample size/halting recruitment provided? (e.g. data saturation) |  | |
| **Data collection** | | |
| Frequency of data collection (e.g. number of focus groups, time frame for observations) |  | |
| Sample size (and attrition) |  | |
| Relevant Participant characteristics (e.g. profession, patient group, demographics) |  | |
| **Data analysis** | | |
| Method (e.g. thematic analysis, data triangulation, member checking) |  | |
| Researcher involvement *(e.g. number of researchers involved, who did what and how?)* |  | |
| **Study Findings** | | |
| How are results presented? |  | |
| Summary of main findings according to systematic review objectives   * Knowledge, beliefs and attitudes towards breastfeeding |  | |
| * Prevalent breastfeeding practices and experiences among African immigrants |  | |
| * Barriers |  | |
| * Motivators |  | |
| Beliefs and practices in host country in comparison to home country |  | |
| Beliefs and practices in relation to single or multiple births |  | |
| Other findings |  | |
| Author’s conclusions |  | |
| Quality Assessment Summary *(narrative summary of quality assessment informed by chosen method)* |  | |
| Other | | |
| References | Possible new includes |  |
| Background papers |  |

### Quality assessment tool for observational cohort and cross-sectional studies for appraisal of quantitative studies

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Yes** | **No** | **Other (CD, NR, NA)\*** |
| 1. Was the research question or objective in this paper clearly stated? |  |  |  |
| 2. Was the study population clearly specified and defined? |  |  |  |
| 3. Was the participation rate of eligible persons at least 50%? |  |  |  |
| 4. Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants? |  |  |  |
| 5. Was a sample size justification, power description, or variance and effect estimates provided? |  |  |  |
| 6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured? |  |  |  |
| 7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed? |  |  |  |
| 8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)? |  |  |  |
| 9. Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants? |  |  |  |
| 10. Was the exposure(s) assessed more than once over time? |  |  |  |
| 11. Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants? |  |  |  |
| 12. Were the outcome assessors blinded to the exposure status of participants? |  |  |  |
| 13. Was loss to follow-up after baseline 20% or less? |  |  |  |
| 14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)? |  |  |  |

|  |
| --- |
| **Quality Rating (Good, Fair, or Poor) (see guidance)** |
| Rater #1 initials: |
| Rater #2 initials: |
| Additional Comments (If POOR, please state why): |

\*CD, cannot determine; NA, not applicable; NR, not reported

### Critical Appraisals Skills Programme (CASP) checklist for appraisal of qualitative studies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Screening Questions** | Yes | No | Can’t tell |
| 1. | Was there a clear statement of the aims of the research?  *HINT: Consider*   * *What was the goal of the research* * *Why it was thought important?* * *It’s relevance* |  |  |  |
| 2. | Is a qualitative methodology appropriate?  *HINT: Consider*   * *If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants* * *Is qualitative research the right methodology for addressing the research goal?* |  |  |  |
|  | **Detailed Questions** |  |  |  |
| 3. | Was the research design appropriate to address the aims of the research?  *HINT: Consider*   * *If the researcher has justified the research design (e.g. have they discussed how they decided which method to use)?* |  |  |  |
| 4. | Was the recruitment strategy appropriate to the aims of the research?  *HINT: Consider*   * *If the researcher has explained how the participants were selected* * *If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study* * *If there are any discussions around recruitment (e.g. why some people chose not to take part)* |  |  |  |
| 5. | Was the data collected in a way that addressed the research issue?  *HINT: Consider*   * *If the setting for data collection was justified* * *If it is clear how data were collected (e.g. focus group, semi-structured interview etc.)* * *If the researcher has justified the methods chosen* * *If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, or did they use a topic guide)?* * *If methods were modified during the study. If so, has the researcher explained how and why?* * *If the form of data is clear (e.g. tape recordings, video material, notes etc)* * *If the researcher has discussed saturation of data* |  |  |  |
| 6. | Has the relationship between researcher and participants been adequately considered?  *HINT: Consider*   * *If the researcher critically examined their own role, potential bias and influence during*  1. *Formulation of the research questions* 2. *Data collection, including sample recruitment and choice of location*  * *How the researcher responded to events during the study and whether they considered the implications of any changes in the research design* |  |  |  |
| 7. | Have ethical issues been taken into consideration?  *HINT: Consider*   * *If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained* * *If the researcher has discussed issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)* * *If approval has been sought from the ethics committee* |  |  |  |
| 8. | Was the data analysis sufficiently rigorous?  *HINT: Consider*   * *If there is an in-depth description of the analysis process* * *If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?* * *Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process* * *If sufficient data are presented to support the findings* * *To what extent contradictory data are taken into account* * *Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation* |  |  |  |
| 9. | Is there a clear statement of findings?  *HINT: Consider*   * *If the findings are explicit* * *If there is adequate discussion of the evidence both for and against the researchers arguments* * *If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst)* * *If the findings are discussed in relation to the original research question* |  |  |  |
| 10. | How valuable is the research?  *HINT: Consider*   * *If the researcher discusses the contribution the study makes to existing knowledge or understanding e.g. do they consider the findings in relation to current practice or policy? or relevant research-based literature?* * *If they identify new areas where research is necessary* * *If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used* |  |  |  |

|  |
| --- |
| **Quality Rating (Good, Fair, or Poor)** |
| Rater #1 initials: |
| Rater #2 initials: |
| Additional Comments (If POOR, please state why): |

## Appendix 8: Interview Transcripts Examples

### Example of interview transcript from mothers’ interviews

START

Interviewer: So, can you just give me a bit more information about yourself, when you came to the UK, I mean I know you’ve got two children, just general information; where you came from when you were coming to the UK, do you have family in the UK, like extended family?

Respondent: Yes, I came to the UK in July 2013. I was coming over to meet my husband who was studying here. And I was travelling from Cameroon. I have been here ever since, so four years. Like you said, I’ve got two children. We’ve got my husband’s uncle who lives in Doncaster.

Interviewer: That’s the only family?

Respondent: Yes, that’s the only family we’ve got.

Interviewer: Okay, and in terms of education, did you do your education in Cameroon or have you done any extra since you’ve been in the UK?

Respondent: Yes, I had a degree in banking and finance in Cameroon, and then here I’m just topping up with CIMA, Certified Institute of Management Accountant.

Interviewer: Okay, so like a professional exam, okay.

Respondent: Yes.

Interviewer: I think that is it in terms of general information. So, breastfeeding, so what do you know about breastfeeding? What do you think about breastfeeding?

Respondent: I think it’s the best thing that ever happened to me being a mother, it’s the best feeling ever. You just don’t want to stop; you just want to keep breastfeeding the baby until –

Interviewer: Okay.

Respondent: The warmth – I don’t know how to explain it, she’s close to you, the feeling of comfort, love.

Interviewer: I wonder how the child is feeling if you are feeling like that.

Respondent: Yes, she doesn’t want to let go, she’s almost a year; she’ll be a year on Friday, but she’s still breastfeeding. But she’s still breastfeeding because it’s still that nice.

Interviewer: Okay, so in terms of the importance or the reason for breastfeeding, what can you say about that?

Respondent: Yes, I think it’s very important because I read about breastfeeding and then coming from a family that breastfed for long as well; we usually do like six months exclusive and then go from there. And from what I’ve read, breastfeeding is very important for the baby, for the development, for their growth, even for their brain; some say it makes them more intelligent, some say their immune system is stronger than other bottle-fed babies. So, for those reasons, that is enough reasons why you need to breastfeed.

Interviewer: Okay.

Respondent: Obviously milk helps with calcium for their bones which makes them stronger. I would imagine immune system, yes, and the breastfeeding keeps the bond between mum and child which is also very important.

Interviewer: Okay, anything else?

Respondent: That’s about it, I think.

Interviewer: So, how important would you consider breastfeeding?

Respondent: Very, very important, it should be a necessity except otherwise.

Interviewer: Okay, so what is otherwise?

Respondent: Say mother cannot breastfeed because she is sick or in the case where the mum dies while giving birth or things like that. I think the government should try – they already do that though, like trying to promote breastfeeding through their breastfeeding courses, through their breastfeeding support, through Sure Start. They are already doing that here. In Africa that’s a normal thing; very few people don’t breastfeed, so it’s the normal thing. Whereas here most people don’t breastfeed, so that’s why here it’s being encouraged, so you get the support. If you don’t know how to breastfeed you go to the breastfeeding class.

If you go out – you’re out and about, they create space where you can breastfeed your child easily and you don’t feel ashamed or something. They create space in a toilet where there’s a feeding room and things like that. Even on the trains sometimes there are trains where breastfeeding is allowed; you can breastfeed freely.

Interviewer: Okay, so you mentioned breastfeeding courses, classes, support; did you use any of this?

Respondent: Yes, all of it.

Interviewer: Okay, so how did you find them?

Respondent: Very interesting. I didn’t know breastfeeding is something that you need to learn. I thought you just gave the baby the breast and that’s it. But when I had my first daughter I discovered that I really, really needed the course, it was important because I was sore for the first two weeks, so I had the breastfeeding support team come over and show me what to do and get comfortable. And they were there for those few weeks after I gave birth to her.

Interviewer: So they came for the first few weeks?

Respondent: Yes, like two or three times, just to make sure everything was going okay.

Interviewer: Okay. So, you found the courses, the classes and all the support helpful?

Respondent: Very helpful.

Interviewer: So, did that make the process of breastfeeding easier for you?

Respondent: Yes, absolutely, it did.

Interviewer: Okay.

Respondent: Like I said I imagined that it was something easy, until I had my daughter and it’s not as easy as we think. There’s actually a way of putting the baby for you to feel comfortable, with your back, and for the baby as well to be able to get as much milk without hurting you or anything like that.

Interviewer: Okay, so how were the classes and the support? Give me more information about it.

Respondent: The classes, I got to know about it through my midwife; she gave me the number and actually on my maternity booklet I had the number there. So I called when I was about six months pregnant, I booked it. So you book it early but you have it when you’re 37 weeks into your pregnancy. So I went for the course, and they show you with dolls, so it’s a bit different. They told us the importance of breastfeeding and I don’t remember the right word for them, like the first milk that the mother has, how important that is.

Interviewer: Colostrum?

Respondent: Yes, so I thought how important that was. Because it’s a bit different, it’s like yellowish and thicker, the importance of it and why you need to breastfeed.

Interviewer: Yes, okay.

Respondent: Then after I had my daughter, they rang, the day I got home to find out how everything was going, if I started breastfeeding, how I was feeling, and then how long I wanted to breastfeed for if I could. So they called and asked if I needed help, but the first day I said no, I thought it was going to be easy. When she held the nipple I was sore; I had like a sore around my nipple so I had to call them this time and tell them I needed help. So they came over and showed me where I was going wrong, and told me how to place the baby, how to sit comfortably as well.

Interviewer: Okay. So, that’s about the classes and the support and all of that. So, you said they called you when you got home and all of that, so when did you leave the hospital actually?

Respondent: The next day.

Interviewer: So, when did you start breastfeeding? When was the first time you put her to the breast?

Respondent: Just two hours after she was born.

Interviewer: Okay, about two hours after.

Respondent: Yes, I was helped by the midwife.

Interviewer: Okay, lovely. So you mentioned that you had sore nipples, so how did you manage that?

Respondent: From the breastfeeding class we were given some ointments to use on the nipples and when they visited me they came with some; it was free when you attended the class, but you could get it from Boots as well. So they gave that, which was very helpful. The baby can actually suck on the breast with the ointment. So it was very helpful.

Interviewer: Okay, so that was helpful.

Respondent: Yes, and knowing what position to put the baby, all of that helped, with the ointment it helped heal the wound. And it got easier within the days.

Interviewer: Okay, so how long did you breastfeed her? Let me go back a little; have you ever heard about exclusive breastfeeding?

Respondent: Yes.

Interviewer: Okay, so you know what exclusive breastfeeding is?

Respondent: Yes.

Interviewer: How would you define it? How would you explain?

Respondent: Just breastmilk without the water or anything milk.

Interviewer: Or anything else, okay. Right, so did you exclusively breastfeed at all?

Respondent: For six months, for all my daughters.

Interviewer: For both of them, okay. How did you find that?

Respondent: It was very nice and easy because I can say for accessibility, their food was always there, always warm, \_\_\_ it was there, so I found it very easy for me, they didn’t have any issue whatsoever. They gained weight within – after two weeks when their weight was taken, they had gained weight which means they were eating very well, and they didn’t lose weight like other breastfeeding babies, they gained weight, which means we were doing everything right with regards to that. So, to me, I found it easier than what I had heard from others. Because others said it was quite difficult, like the baby doesn’t feed well or they are not full; you need to top up with milk, but mine, they were okay.

Interviewer: Both of them, you didn’t experience that.

Respondent: No, I didn’t, they were fine.

Interviewer: Okay, so did you have any other difficulties? Apart from having sore nipples, did you have any other challenges or any difficulties?

Respondent: No.

Interviewer: No latching problems; they latched on okay, and nothing, no leaking breasts or anything that was a challenge?

Respondent: Yes, at the beginning, like not leaking breasts, sore. Apart from the wound on the nipple, because during the course we were told, when you feed this breast, you need to get the next one the next time the baby was on it, or you give five minutes here, five minutes there. So, with being a new mum I didn’t know that, so I gave one and I forgot to give the next one, so it got sore. But they told me the best thing to do was to just keep feeding her on both, like sharing them, and that’s how I got out of it.

Interviewer: Okay, and everything was fine after that?

Respondent: Yes, everything was fine after that because I’ve got so much milk.

Interviewer: Pretty easy for you.

Respondent: Seriously it was; I’m actually shocked it was because from friends and family members, I used to hear, “Oh she just wants to be on the breast”, complaining, but to me, that’s what I want to do. I always want to feed her.

Interviewer: Well I think it’s different for different children. I would say I’ve not had much of a difficulty; it’s been okay, but maybe not as easy as you’re sounding.

Respondent: No, I’m serious, I was shocked that it was that easy. I don’t know if it was because of them, or girls or what, because the friends that complained a lot, they had boys.

Interviewer: I have a boys and breastfeeding okay, I don’t feel like he’s not full or anything. I guess it’s just different children really; you can’t tell how the child is going to react.

Respondent: Yes, sure. So apart from this soreness which went for like five days, and the \_\_\_[0:13:49] for like three days as well. Apart from that, everything was okay. Then the waking of a night, that’s normal for every mum, whether bottle-fed, they wake up of a night.

Interviewer: Okay, so generally, I mean you said you enjoyed breastfeeding, you liked it and all that, but is there any other way you can explain how you feel breastfeeding, in terms of your confidence.

Respondent: Like out of home or-?

Interviewer: Anywhere, how confident do you feel to breastfeed?

Respondent: Very confident.

Interviewer: And regardless of what challenges you might have had; do you think that you still would have been able to do what you did?

Respondent: Yes, because of how important breastfeeding is to them, I think at that time that’s the best thing you could give them, knowing that it makes them strong, knowing that they’re going to grow well, because that’s what I had in my mind.

Interviewer: Okay, and you had both of your children in the UK?

Respondent: Yes.

Interviewer: Okay, so what was your motivation to breastfeed?

Respondent: I don’t think I really had much of that. How can I say? It’s just something that I always knew I wanted to do. So first of all it’s something that I knew I needed to do. And the fact that it’s easy, you don’t have to go and start sterilising bottles; it was ready, just clean, give them, so it was always there.

Interviewer: So, when did you first learn about breastfeeding?

Respondent: Since I was a child. I was about nine years old when my mum had my kid sister.

Interviewer: Okay.

Respondent: So, I saw breastfeeding and learnt about breastfeeding but she was always complaining because she was really sore; she was always in pain, like the breast or the nipples were painful. That’s why I found this course very important, because I went through mine easier than-

Interviewer: Yes, it was a lot easier, because she didn’t have anybody to guide her on what to do with the-

Respondent: No, it’s considered as something that you need to know, like on your own.

Interviewer: Yes, I guess so. Right, okay. So, apart from learning breastfeeding by watching your mum and maybe seeing some other people breastfeed; are there any other places – and the breastfeeding classes that you’ve mentioned; were there any other places where you’ve learnt about breastfeeding?

Respondent: From friends.

Interviewer: Okay, any books or not really?

Respondent: Just a bit on the maternity literature you get; there was a bit about that, and they gave leaflets in the course, in the class. When you go for antenatal care, the team leader always talks about breastfeeding, fliers there encouraging mums to breastfeed.

Interviewer: Okay. Did you ever use the internet?

Respondent: No.

Interviewer: Okay. I’m just thinking of any other sources. Okay, I think that’s it really. The midwives and \_\_\_ all that.

Respondent: Yes, the midwives \_\_\_.

Interviewer: Okay, so did you have any expectation about how your child should behave before you started breastfeeding? Did you have any expectation what should happen?

Respondent: Yes, a hungry child, a position that she should receive the breast when you give her, and she did. I was actually quite shocked that somebody just coming from your belly already knows how to-

Interviewer: Yes, I happened to actually watch a video about that before I gave birth, so I already knew that they already have an instinct. I think they said something like the breast has the same smell of the amniotic fluid, so when they come out that’s the only thing that they can smell because that’s what they are smelling.

Respondent: It makes a lot of sense now, because the moment that you – the just know that, yes.

Interviewer: They just know that this is food, yes.

Respondent: And then you put in their little mouth and then she grabs on it and you’re like, “Whoa.”

Interviewer: Yes, I actually saw that, that it smells the same. So, I mean the video I saw, they actually said that if you just put the child on the mother and just leave the child, the child would kind of pull herself towards the breast because she can smell it and will pull herself towards that. I was like, “Interesting.”

Respondent: It’s really interesting; I didn’t know that. And my breast, the milk didn’t come out immediately, so they had to suck on it-

Interviewer: For a while.

Respondent: Yes, that’s what made it sore.

Interviewer: Okay, and whatever expectation you had, did it affect what you did in terms of breastfeeding? Was there a motivator or anything?

Respondent: I think, yes, because I was kind of like prepared mentally from the classes, like what I had seen or read. Yes, so it’s kind of like prepared me for-

Interviewer: Yes, so it prepared you for what was coming. Okay, so in terms of support, so you had support from the midwives, who else did you mention?

Respondent: The breastfeeding support team.

Interviewer: Was it breastfeeding support group or something?

Respondent: Yes.

Interviewer: So, is it breastfeeding support that came over?

Respondent: Yes.

Interviewer: So which breastfeeding support was that?

Respondent: It was through Sure Start; I don’t even know what it was called.

Interviewer: Okay, so it wasn’t the midwives or the health visitors?

Respondent: No, they said breastfeeding support team that is different from the-

Interviewer: Okay, and did you feel that the support that they gave you was sufficient?

Respondent: Yes, and they were always there to help, especially for new mums \_\_\_.

Interviewer: Yes, okay, and how long did they support you for?

Respondent: For two weeks.

Interviewer: So, which other support did you receive, apart from the breastfeeding support team?

Respondent: From the midwives, and the health visitor.

Interviewer: Okay.

Respondent: They always ask if you’re okay with breastfeeding and then I had friends, the one you’re going to meet on Thursday. She was an experienced mum so she was always there to ask if I needed help with anything.

Interviewer: Okay, did you have any other support? Anything else you want to say about support?

Respondent: Like my husband? Yes, he was always there.

Interviewer: Oh definitely. He has to be.

Respondent: Yes.

Interviewer: What kind of support did these different people give you?

Respondent: First of all, I’ll start with the midwife; the midwife asking you the question, “Are you going to breastfeed or bottle feed?” Kind of first of all prepares you, and then when I said breastfeeding she told me about the breastfeeding-

Interviewer: Support group.

Respondent: Yes, and reminded me to call them to book.

Interviewer: Oh right, to register.

Respondent: Yes, and then for the breastfeeding support, they show you the process with the dolls, tell you the different difficulties you can get, so it starts like preparing your mind for what to expect. And then even after I gave birth, they came and showed me. They came out and watched me first, see what I was doing, so they could advise if I was doing it wrong and say, “Try this, try that.” And for my friend, she was always there to make sure I was feeding the baby properly and eating well.

Interviewer: Okay.

Respondent: If you eat well you have enough milk to feed baby as well.

Interviewer: Okay, so was she kind of like making food for you?

Respondent: Yes, especially when I had my first, she cooked for me for three months, I didn’t stand there in the kitchen until the evening.

Interviewer: Okay.

Respondent: She was there, and all.

Interviewer: Oh right, so quite a bit of support around. So did that help your experience and the process as well?

Respondent: Yes, it made it a lot easier because the only thing I did was breastfeed, because I didn’t have work; she made my food. When I woke up in the morning she was there with hot water to prepare my bath and massage; massage my tummy and all of that. Then by the time leaving the bath to dress she is there making breakfast or my husband is making breakfast. So I eat, and then by the time I’m eating she-

Interviewer: She wants to eat.

Respondent: Yes, so I’d feed the baby and then she’d wait for the baby to burp. While she’s bathing the baby she is making sure I want food or drink. So I had that support. To be honest in my house it’s a bit different because I’ve \_\_\_ so far, and I’m trying to help them because they cannot help \_\_\_. I realise that people really, really need the help, so she was there.

Interviewer: Right, so how long did this support go on for, like your friend being around?

Respondent: She was there, like I said the first three months in particular before she went back.

Interviewer: Okay.

Respondent: Ideally every morning, sometimes mornings and evenings.

Interviewer: Okay, so let’s talk a little bit about weaning.

Respondent: That was the part I faced difficulty with.

Interviewer: Right, okay so you breastfed exclusively for six months. So you started the weaning process after six months, so how did you find it? What was your experience of weaning?

Respondent: That was a bit difficult because the only thing she knew was just the breastmilk, so now to start with bottle, she enjoyed drinking water with the bottle, but when it came to milk she didn’t want it. She would pick other stuff like food and other vegetables but not milk. So even now, I only give her milk in a cup. If it’s in a bottle she won’t-

Interviewer: She won’t take it?

Respondent: Yes, and that’s the same thing I had with her. So that’s the big difficulty with breastfeeding when it comes to weaning; it’s a bit difficult.

Interviewer: So they were not quite quick to having milk but they had other things.

Respondent: They had other things but not milk, not bottles.

Interviewer: Not in the bottle, I think that’s fine. I don’t think that’s difficult.

Respondent: It is because you want to see the quantity of milk they are taking, right, to know that they’re having enough, because now I think that she’s not having enough milk through breastfeeding. Because as you are experiencing she is there every two seconds.

Interviewer: She stops.

Respondent: She stops, so you don’t know what quantity of milk she is getting and you know that she needs to be getting at least 500ml of milk. So put in a bottle now to measure what she’s getting and she doesn’t take, it’s quite difficult knowing. But she eats other things but she still-

Interviewer: Other things were fine, but it was just the milk. So what did you start with for the weaning? What did you start weaning with?

Respondent: I started with the milk which obviously she didn’t take. So I went to puree.

Interviewer: And she took that?

Respondent: Just a bit, like just a spoon; for the first two weeks she was just taking a spoon but to me that was okay because she still had her breastmilk. And then Weetabix, bananas, like other foods; I chopped them.

Interviewer: So you started off with milk and then you went onto baby food and then you now started giving foods and some other things.

Respondent: Yes, at eight months, I started doing the food that I eat, I give her a pinch to have a taste and then I gave her chicken to hold and try to \_\_\_, and yes, when she was eight months. But between the six and the eight months it’s mostly baby food, like blending fruits, blending banana, all of that.

Interviewer: Okay, so were there any factors associated with your weaning? Were there any particular things that made you start weaning at the time you started?

Respondent: Well there’s this friend always reminding me that you have to start weaning now. You have to go back to work. And I was like, okay.

Interviewer: Okay, so when did you go back to work?

Respondent: When she was nine months.

Interviewer: Okay.

Respondent: So, I was 10 months of maternity leave, so when my maternity pay stops. You have to prepare her because I would be going back to work. So I needed to prepare, so by the time I go to work she would have been eating something and is-

Interviewer: So you had to go back to work, so you had to start weaning her; was there anything else?

Respondent: Normally, I just thought by six/seven months the breastmilk is not enough.

Interviewer: Okay, so do you know of any cultural or traditional factors in Cameroon that could affect your breastfeeding practice? What is the breastfeeding culture in Cameroon? So let’s leave the UK environment now, let’s go back home; what is breastfeeding like in that environment?

Respondent: Back in Cameroon people breastfeed really long. But let me talk about our family, because I saw from my mum, she did exclusive for six months, but by the time you’re five once in a while she just puts like a bit of food in your mouth to have a different taste. She says she’s preparing your tastebuds for other things. By the time you’re six now, by the time you’re tasting the baby food you start eating other foods as well, and she was like that. Which is a bit different here for what I did myself. And then it’s quite easy though because you carry a baby like her and she’s crying, everybody just says, “Give her the booby.”

Interviewer: Yes.

Respondent: Like anywhere you are; in a taxi, you could be walking and give the baby your breast; it’s up to you. Unlike here where you need to go and hide in a room or something to breastfeed the baby, there anywhere. Especially if you’re in a taxi, that’s the worst one, because the taxi driver is like, “Give that baby the booby”.

Interviewer: Yes, everybody is like “Why are you making her disturb us? Give her something.” Was there anything else? You said your mum exclusively breastfed for six months or for five months.

Respondent: Yes, it’s actually five.

Interviewer: So, anything else? You said something about breastfeeding for long.

Respondent: Yes, like breastfeeding for up to nine months.

Interviewer: Okay, like exclusively?

Respondent: No.

Interviewer: Okay.

Respondent: That’s really long compared to other people, because people breastfeed to six months, not exclusively, they just breastfeed for six months or three months, and that’s it.

Interviewer: That’s quite interesting that you say that people breastfeed back in Cameroon for nine months and you say that is long, because for me, from Nigeria, people actually do breastfeed for up to three years.

Respondent: Yes, I’ve only seen one person that breastfed – because the child was going to prenursery, coming back to – that’s ridiculous.

Interviewer: And I think it’s quite a norm back in Nigeria, I don’t know about Cameroon, I mean I can only be asking you, but I think it’s quite the norm, because you see children that are playing around and they just come back to their mum. They move the bra themselves and just latch on.

Respondent: Yes but the norm generally is one year.

Interviewer: Yes, most people will breastfeed for – yes, so you have the odd people that will go longer than one year, and some other people that will be shorter than one year.

Respondent: Yes, but the norm is usually one year.

Interviewer: Yes, the average is about one year. Okay, I mean that’s still pretty long.

Respondent: It is long. I’m really shocked by myself because my mum can’t believe that I breastfed. She was 11 months and she’s almost one, so my mum is still shocked that I’m still breastfeeding. She always thought I would be one of those who by three months/six months I would be like, “Okay.”

Interviewer: Just stop.

Respondent: Yes.

Interviewer: Okay, so is there anything else that you can think of about what breastfeeding is like?

Respondent: Would I say it’s easy or difficult? We don’t have the support that we have here.

Interviewer: What kind of support?

Respondent: Coming to show you how to breastfeed.

Interviewer: Okay.

Respondent: But we have support in other ways, like there’s always family to support you, help you with chores, for the first three months while you breastfeed. And I can say out of 100, you can find only two or three people that will not breastfeed.

Interviewer: That will not breastfeed at all?

Respondent: Yes, most people will breastfeed.

Interviewer: Okay. Did any of those influence what you actually did?

Respondent: Just the fact like breastfeeding is important, but I didn’t really know the reasons why they said it was important. And then some mentioned something about if you don’t breastfeed you can have breast cancer and things like that.

Interviewer: Okay, so are those things that you learnt from back home?

Respondent: Yes, like you need to breastfeed the child, it’s important to breastfeed the child.

Interviewer: Okay.

Respondent: Because it’s easy, affordable, unlike milk that you have to buy. It’s cheap; it’s free actually.

Interviewer: Okay, right, so how would you compare now your knowledge of breastfeeding back home and what you have experienced back home? How would you compare both?

Respondent: Can you rephrase the question? I do not understand, the experience for me breastfeeding or what I learnt there and what I learnt here.

Interviewer: Not really what you learnt. Okay, let me ask this first. Okay, let me put it like this, first when did you decide? When did you make the decision that you were going to breastfeed?

Respondent: When I had my kids, from Cameroon.

Interviewer: So before you were even pregnant.

Respondent: yes, before I even knew I would have kids I knew I was going to breastfeed.

Interviewer: Okay, so what I’m asking now is, before you came from Cameroon you had an idea of breastfeeding, but you had not breastfed yourself, you just had an idea. Now that idea that you had about breastfeeding, compared with what you have done, while you are in the UK, and how it has been for you; how do you compare it?

Respondent: It’s a bit similar actually, because what I’ve done is what people back home do, like breastfeed for long, do it like this, very easy. So it’s quite similar and then plus the fact that I had the help that I did, made it even easier.

Interviewer: Okay, so let me – because the question I asked; you’ve given me a bit of it but I might need a bit more information in the sense that, if I were to – if I give you an example, comparing what breastfeeding is like back home and what it is like in this country, a typical example that most people give is back home, anywhere you are, marketplace, taxi, you can breastfeed.

Respondent: Okay, I understand the question now.

Interviewer: Yes, you have to hide yourself. So, what are the differences? What are the similarities between breastfeeding here and back home?

Respondent: Well, I will start with the similarities that it is something that is supported or promoted, because even back home, the midwives there as well, they do try to advise that you breastfeed. And now the differences; there are really more differences actually. The difference now is here; people don’t breastfeed a lot unlike back home. Here you get the support whereas back home you don’t get as much support. Like the example you just gave as well; back home you can breastfeed anywhere, whereas here you need to be in a room or privately or you need to cover baby and things like that, cover your breast, so you don’t breastfeed freely. Whereas back home, anywhere, then that’s about it.

Interviewer: Okay, so can you identify any particular factors that influenced your breastfeeding practice? So both when you were doing exclusive breastfeeding and even now, anything that’s influenced your breastfeeding. So influence can be negative, positive.

Respondent: I don’t know.

Interviewer: Well if there’s nothing then there’s nothing.

Respondent: Because it’s just something that I wanted to do, so I don’t know if there was a particular thing that –

Interviewer: Do you think that the fact that back in Africa most people breastfeed might have been something that’s kind of influenced the fact – it’s what we’re used to, for us it’s a norm.

Respondent: Yes, first of all it’s the norm, and secondly the importance of breastfeeding, especially when it comes to making them stronger, their immune system.

Interviewer: Okay. So do you think there are any factors that might have improved your breastfeeding experience in the UK? Anything that could have improved your experience.

Respondent: Yes, the support that I had.

Interviewer: Yes, so would you say all the support that you had was sufficient?

Respondent: Yes, I had sufficient support, plus even though we say we’re \_\_\_[0:40:41] in those places we still have where you can sit comfortably; there are comfortable chairs where you can sit to breastfeed your child, so it’s not bad.

Interviewer: Okay, but do you think there are any other things that could have been done to make it better?

Respondent: Yes, educate people to know that breastfeeding is a nice and normal thing. On my way home, if the baby is crying I breastfeed the baby. If they see this breast anywhere else, on TV, anywhere, but when it comes to breastfeeding, to them it’s a taboo, because if I wore this and put it out, nobody would say anything, but when it’s breastfeeding they see it as – I don’t want to use the word taboo because it’s an African word. They look at it as disgusting.

Interviewer: Yes, it’s not acceptable.

Respondent: Yes.

Interviewer: Right, okay.

Respondent: So just that education; educating people to know that that is a very normal and natural thing to do. You don’t need to be shy, you don’t need to be afraid of anybody and those people need to be \_\_\_[0:41:54]. I know a friend who was sent away from a shopping mall because she was breastfeeding and she got really upset and she stopped breastfeeding.

Interviewer: Is that recent?

Respondent: Yes, like three months ago in Primark.

Interviewer: Wow, okay so for that person now that’s kind of like a challenge that she experienced or maybe like an influence to what she did eventually.

Respondent: Yes, because she ended up giving formula to the child and just stopping. She got really upset. It was over the news actually; it was in the paper.

Interviewer: That particular?

Respondent: Yes, it was.

Interviewer: Okay, well is there anything else you would like to add because I think I’ve kind of come to the end.

Respondent: No, just breastfeeding is a good thing, that’s all.

Interviewer: Anything else that you might want to add?

Respondent: I don’t think so.

Interviewer: No, so in general your breastfeeding experience has been good?

Respondent: Yes, but I think it was that good because I didn’t expect it to be that good.

Interviewer: Yes, I think I understand that.

Respondent: Yes, you hear stories of all, “It’s difficult”, “In the UK you cannot just breastfeed.” And then for me to get that support that I had, to even know that at Debenhams or Marks and Spencer there is a place to breastfeed, all of that.

Interviewer: Okay, that’s wonderful. There’s one question that I almost forgot to ask. So, what do you think about the upcoming generation, especially in Africa, what do you think about them? So basically there’s this thing that seems to have been coming up quite frequently and it’s that it seems like Africans – as you were saying, it’s the norm for us to breastfeed in Africa, where it seems like this new generation are not really seeing it like that; what do you think about that?

Respondent: Yes, I think it’s true what you are saying; they are really changing, yes. What we can do to prevent it-

Interviewer: Okay, before we go to preventing it, so what is the change?

Respondent: The change is that less and less women want to breastfeed and the reason they give is because they think they want to go back to work. Because we have one in the family where my younger brother – from birth her mother didn’t breastfeed, just the first day, and started giving her milk. She’s a teacher, she doesn’t have maternity leave so she needs to get back to work. She just had one month so she had to go back to work. So the only thing she could do is introduce the baby milk on the same day she had to go back to work. But there are ways of managing it if you really wanted to. There are ways of managing it. Here in UK the leave is quite long; you have up to a year, so that gives you that time, you could go exclusive for the first time because you have that time. And then you could decide if you wanted to go back to work and then you can wean the baby. Back home we don’t have that, so that’s the excuse they are giving. Like every woman wants a career, and they think breastfeeding is in the way of their career.

Interviewer: So, do you think that the younger generation is now beginning to – instead of seeing breastfeeding as a norm or something that I need to do, they are seeing it as, well I can choose to breastfeed or not breastfeed, whatever.

Respondent: Yes.

Interviewer: Okay, and so you are going to talk about prevention.

Respondent: Yes, through education because that’s very important that that’s where we are failing in Africa because we don’t educate the women the importance of breastfeeding and why they need to. Even why they need to go exclusive and stuff like that. Most people don’t know.

Interviewer: So, why do you think we need to go exclusive? What’s the benefit of going exclusive?

Respondent: It makes the immune system of the baby stronger than children who bottle feed. And I don’t know, I’ve forgotten what book that I read.

Interviewer: So you read a book on breastfeeding?

Respondent: Yes. Oh I forgot to mention did I? There’s a researcher who says like a particular thing from breastfeeding from the milk in the first few weeks, the thick yellowish-

Interviewer: Colostrum.

Respondent: Yes, he says the colostrum helps you, exclusive breastfeeding, he did research for 30 years and he has backing; you’re more intelligent, you’re wiser and you stay longer. This is going on, I don’t know where I can refer you to read, but in America recently they are actually buying breastmilk off women and that’s what they are taking as their own, because of that research. So they are seeing the importance of breastmilk and some even think that it helps with cancer cells.

Interviewer: Okay.

Respondent: So it’s important that we educate our women back home, to really know the importance of breastfeeding and even how to manage it, even if you’re working, because you can always express.

Interviewer: Yes, that was something I wanted to hear; how then do you manage it if you have to go back to work?

Respondent: Yes, you can express; there are ways of doing it, sterilise your bottles while you express, put in the fridge, even in the freezer.

Interviewer: Well I freeze it so I know about that. Okay, so that’s really good. So how did you find the interview?

Respondent: It was okay. Better than I thought it was going to be.

Interviewer: Really, what were you thinking?

Respondent: You know sometimes you can ask a question and you don’t even know what to say.

Interviewer: Yes, it’s just to find out what people experience in the UK really; how has your experience breastfeeding in the UK been? I mean for you it’s been good.

Respondent: It’s been really good to be honest.

Interviewer: I mean if I were to talk to your friend that was sent out of Primark, I’m sure she’s going to say, it was not good.

Respondent: Yes, she’s going to be mad even thinking about it. It’s like each time you mention it she just starts screaming, “They sent me out of Primark because I was feeding my baby.”

Interviewer: Right, okay. Do you have anything else you want to add?

Respondent: No.

Interviewer: Okay, so I’ll turn this off. Thank you for your time.

END

### Example of interview transcript from health professionals’ interviews

START

Interviewer: I’ll just start with you. If you can just give me a little bit about your job role, what you would generally do, how long you’ve been working in the role for.

Respondent: I’m a health visitor. I’ve been working in the area for 31 years. In health visiting for about 24.

Interviewer: All right. Okay. What does the role entail, really? What would you do generally?

Respondent: I monitor the health and development of women and children in the community that are identified by the GP practice. We go out and visit them antenatally and postnatally as well following the birth of the babies.

Interviewer: How long do you follow them up for? How long would you see them for postnatally?

Respondent: Up to a year. It would be identified how often as to when they went and assessed the health needs of the family. They would then identify how regularly.

Interviewer: How often you need to. Okay. Do you have any guidelines that you would follow?

Respondent: In relation to-?

Interviewer: Feeding. Infant feeding.

Respondent: Yes. We have. We have a little red book. We have guidelines that we have to follow and documentation that we’ll have to do in the red book. The UNICEF guidelines as well.

Interviewer: Right. Okay. Can you tell me a bit more about the guidelines? What does it say?

Respondent: It says what you should be assessing. Like assessing the breastfeeding, assessing the regularity of the feeds, assessing the latching on, assessing the position they’re feeding and things like that. The baby’s weight gain, how the baby sucks, how the baby feeds and things like that.

Interviewer: Right. Okay, okay. How often would you see African mums? How many African mums would you have in your caseload, for example?

Respondent: Possibly only maybe about five or six at the moment.

Interviewer: Okay. Not very many.

Respondent: Not at the moment. I have in the past.

Interviewer: Okay. Five or six, that’s a good number compared to what I’ve been getting. I think that’s fair enough. Okay. What I want to get really is your experience. How has your experience been supporting African mums to breastfeed?

Respondent: I find from the African mums, they need very little support. Actually, it appeared to come quite natural to them. It’s not very often I have to assess and show them how to position or anything like that the baby. It all appears just quite natural.

Interviewer: Natural.

Respondent: Yes.

Interviewer: Right. Okay, okay. When you see them postnatally, you see them I think first 10 to 14 days.

Respondent: Yes.

Interviewer: Okay. Depending on what you find at that point, between that 10 to 14 days and maybe the next visit, which I’m not sure when it is, what kind of general practice do you find that African mums tend to do? What’s the normal thing that they would do in terms of breastfeeding? I’m thinking in terms of would they normally exclusively breastfeed? Would they mix feed?

Respondent: Yes. The majority of them would exclusively breastfeed.

Interviewer: Do you know how long they would probably exclusively breastfeed for?

Respondent: In my experience, quite a long time. Obviously, up to a year old or they will still continue to breastfeed once they start to wean them.

Interviewer: Yes. When would they generally start introducing solids?

Respondent: From six months.

Interviewer: From about six months. Yes. So, they tend to do the exclusive breastfeeding for six months.

Respondent: Yes.

Interviewer: In your experience, has there been any time that you might advise a mum to go against the exclusive breastfeeding, the UNICEF guidelines?

Respondent: Yes. I had a mum with twins and she was having difficulty feeding both of the twins at once, so she actually gave one of the twins a formula feed. I just reassured her that that was better for her. At the time, that was okay because she was struggling, and it was better to do that than to give up breastfeeding.

I think it was only for a week or two she did that until the pattern was established.

Interviewer: Okay, okay, okay. I’ve had a case of a mum who said that she felt that her baby was crying quite a bit. I don’t know. Probably after an assessment or something, but she was advised by a health study to give formula. Maybe that was about three or four months or something.

Respondent: Yes.

Interviewer: What do you think about that?

Respondent: I wouldn’t normally advise it. I would try and ask her to express.

Interviewer: Okay.

Respondent: When the baby wasn’t needing to be fed, to try and express some breast milk and use breast milk as opposed to introducing formula.

Interviewer: Right. Okay.

Respondent: I wouldn’t condemn her for it, though, if she wanted to do it.

Interviewer: No. Yes, yes. It’s more like supporting their choice, I would say.

Respondent: Yes.

Interviewer: Yes. Okay, okay. What are your thoughts about introducing solids, your general thoughts about introducing solids? When would you consider the most appropriate time?

Respondent: We would usually say around about six months or sooner if you felt the baby wasn’t settling on the breast. The government guidelines, I think, are from 19 weeks. I’d go along with that. But most breastfeeding mums manage until just about six months.

Interviewer: Right. Okay. Do you find that the length of stay, so if African mums have been in the UK for a longer period, do you find that it would affect what they tend to do with respect to breastfeeding?

Respondent: No, no. I don’t think so.

Interviewer: They just have the same.

Respondent: I don’t think they influence African women. No.

Interviewer: Right. Okay. Will any other cultures have that kind of-?

Respondent: Yes. Cultures like Asian Bengali. They tend to mix feed. Whereas, African women tend to exclusively breastfeed.

Interviewer: Right. Okay. Regardless of how long they have been in the country for.

Respondent: Yes.

Interviewer: Right. Okay. Are you aware of any cultural or traditional practices that are peculiar to the African community in relation to breastfeeding or infant feeding?

Respondent: No. I can’t think of anything. No.

Interviewer: You haven’t got probably any mums maybe insisting on wanting to give water in the early days or discarding colostrum for any reason?

Respondent: No, no. I’ve never come across that.

Interviewer: No, no, no. Okay. All right. That’s good. Are you aware of any barriers or motivation for them, for African mothers, in relation to breastfeeding? Anything that may have stood as barriers to their breastfeeding practice or any particular motivation?

Respondent: Or any particular- What?

Interviewer: Motivation. Anything that motivates them in particular to breastfeed. Any motivation makes them breastfeed more or any barriers to their breastfeeding.

Respondent: No. I think culturally it’s what they expect to do.

Interviewer: Yes.

Respondent: I think they are more or less self-motivated. We go out and ask and we’ll give them the information or the values of breastfeeding and things. Maybe they’re not aware of that but they’re more prone to breastfeed anyway.

Interviewer: Right. Okay. They just generally go for it. Do you give them a choice? Like asking them, “What do you want to do?”

Respondent: Just ask what the intentions are. “What are your intentions? How do you intend to feed the baby?” Put it like that and leave it up to them. They’ll say they want to breastfeed and then obviously you would encourage them by giving them the benefits for their own health and the baby’s health.

Interviewer: It’s not like you are finding anything in particular that might be motivating factors.

Respondent: No.

Interviewer: How do you find that they respond to breastfeeding in public?

Respondent: The mums I’ve had have been fine.

Interviewer: Really?

Respondent: Yes.

Interviewer: Okay.

Respondent: They would feed in clinic.

Interviewer: No issues?

Respondent: No. Not really because I think they’re quite clever at covering up.

Interviewer: Right. Okay, okay. Breastfeeding in public is not a barrier to them.

Respondent: I’ve never come across it.

Interviewer: Yes. All right. Okay. Are there any particular issues, difficulties or needs?

Respondent: Which are different to other women?

Interviewer: Yes. Which might be different to other women?

Respondent: Not necessarily. No.

Interviewer: Okay.

Respondent: No.

Interviewer: Okay. Right. Okay. If you had an African mum – this might be general – if you had a mum that, for example, decides that, “I want to exclusively breastfeed. Instead of introducing solids at six months, I want to introduce solids after a year.” How would you respond to that?

Respondent: I had that. I would encourage her to introduce solids obviously for the development of the skills of chewing, swallowing solid foods and things. Then that in effect helps with the speech and things like that.

Interviewer: Yes. That’s it?

Respondent: Yes.

Interviewer: Do you have any mechanism in place to monitor what happens thereafter because you might encourage the person but to monitor if anything has changed?

Respondent: I think if that was an issue, it’s something that you would identify yourself and go back and see if they were managing to introduce solids. You wouldn’t just leave it.

Interviewer: Yes. Right. Okay. What do you think about mental health? What’s your perception of mental health among African mums?

Respondent: It depends the reasons why they’re here. Whether they’re seeking asylum or whether they’ve been granted asylum. I think there’s a big difference. If they’re seeking asylum, they’ve come from some tragic circumstances. The mental health can be a bit poor but it doesn’t appear to affect the care of the baby.

Interviewer: Okay, okay.

Respondent: You would just offer moral support with that.

Interviewer: Okay. Regardless of their mental state, they still tend to feel that obligation towards the baby. Is that what you’re saying?

Respondent: I don’t think it’s an obligation. I think it’s just what they would do. They don’t feel obliged to do it, I think. It’s just something that’s natural to them.

Interviewer: Right. Okay. You talked about whether they’re seeking asylum or not. If you can just give me a little bit more information about what the kinds of difference might be between the two groups.

Respondent: In relation to-?

Interviewer: To the mental health.

Respondent: Obviously, sometimes they’re preoccupied if they’re seeking asylum as to whether they’ll be allowed to stay here. They might be quite anxious. That might make the baby quite factious as well when they’re feeding if they’re quite anxious.

Their mental health and their status might impact on how the baby feels, which could then in term make the baby feel quite irritable.

Interviewer: Right. Yes.

Respondent: I had one mum. She was from Afghanistan, I think. I’m not sure. Zimbabwe. She was deported. She had her one little girl who was here. She was three and a half. Then she was deported when the baby was just two weeks old. She was ringing me from the call-in centre because the baby wasn’t feeding very well and she was crying.

The baby was obviously quite irritable. He had horrendous eczema. She was ringing me, asking for some support and if I could ring the call-in centre and speak to health professionals there. I could understand that baby would have been quite factious as well.

Interviewer: Yes. All right. Okay. Let me talk about support first. What do you think the support system is like for African mums? What do you think their support system is like?

Respondent: In relation to breastfeeding or in relation to the community resources?

Interviewer: I think either way, really. Basically, when they’ve had a baby, do you think that they get quite a lot of support? Do you think that they have a lot of support around them? Maybe family, friends and support like that?

Respondent: Again, it varies as to the circumstances as to why they’re here. There’s quite a significant population of Portuguese speaking African women who tend to stick together. They’ve got a good network of friends. Then as I said before, if you’ve got the person who’s seeking asylum and she’s come here on her own, they could be quite isolated. There are groups which they can go to, we can direct them to.

Interviewer: Yes. Have you observed anything about the impacts that religion might have as well on the mums and their breastfeeding?

Respondent: No.

Interviewer: Because I’ve had quite a few people talk about the church. A lot of African mums tend to have their support from church. It’s whether the non-Christians might also have that similar kind of support.

Respondent: Well, I think if they haven’t got the church support, they may not have as much support.

Interviewer: Yes. Right. Okay.

Respondent: There are community resources which you could direct them to.

Interviewer: Yes. The other thing is just do you think that there’s any need for any focused attention for African mums as opposed to other ethnic backgrounds?

Respondent: Do I think there’s any need for what?

Interviewer: Focused attention or special attention for African mums.

Respondent: I don’t know what you mean in relation to.

Interviewer: In terms of maybe the support or the care that you offer to them. Do you think the African mums might need anything extra as opposed to other ethnic backgrounds?

Respondent: It would depend on your assessment. Again, it would depend on your assessment, your first assessment as to why they were here, how they were here. You would do an assessment of what support they do have but you would suppose them following your initial assessment.

Interviewer: Yes.

Respondent: If they were managing to breastfeed, you wouldn’t give them as much support. But if they were struggling, you would give them more support.

Interviewer: Yes, yes. It’s not really a cultural thing.

Respondent: No, no. It’s individual women.

Interviewer: It’s more of an individual thing. Yes. Right. Okay. In your own opinion, do you think there’s anything cultural or anything that you can think of maybe that I might not have mentioned? Any issues, any difficulties that they have? African mums now, any issues? Any difficulties? Any concerns from within that group?

Respondent: No. Just the language barrier, I presume, of English. When asylum seekers first came, people weren’t aware of somebody from the Congo speaking a different dialect and speaking Lingala as opposed to- I can’t remember what the other one was. You have to be very careful when you’re selecting your interpreters.

Interviewer: Yes. All right.

Respondent: I think sometimes there is quite a difficulty when you’re using interpreters. There could be some cultural issues in relation to which interpreter you use.

Interviewer: Yes. Okay. What’s the major impact of this sort of language barrier, of this sort of difficulty?

Respondent: How they feel, I think. You’re not getting the message across. You’re not sure whether the interpreter’s given the correct information. You just have to rely on that.

Interviewer: You just have to trust that. That he gets the message out.

Respondent: It’s the same with other women as well.

Interviewer: Right. Yes, yes. Okay. Is there anything that you would like to see done differently?

Respondent: In relation to the support of African women?

Interviewer: Yes.

Respondent: No, no. I wouldn’t see them as any different.

Interviewer: Okay. What in your opinion might help to improve the services or breastfeeding? Like you said, they tend to breastfeed quite a lot.

Respondent: Yes.

Interviewer: Do you think there is any need for improved services towards them at all?

Respondent: No. I think they’re one of the ones that you can more or less guarantee would give it a go.

Interviewer: Yes. Okay.

Respondent: They’re less likely to have a steriliser in the house.

Interviewer: Right. Yes. Okay. Do you tend to see quite a lot of asylum seekers then?

Respondent: Not as many now as we used to.

Interviewer: All right. Okay, okay.

Respondent: It’s definitely dropped off quite a lot.

Interviewer: Right. Do you find that what they would experience as asylum seekers is different from what someone who has more settled immigration status would experience?

Respondent: Yes. I think you would be more vigilant. Offer them more support because of their mental health.

Interviewer: Right. Okay, okay. All right.

Respondent: Some of them can take up quite a lot of your time emotionally as well.

Interviewer: Yes, yes. Right. Okay. That’s me done. I’ve reached the end of my questions. Thank you so much. I hope that wasn’t too-

Respondent: No. It was all right. It was fine.

Interviewer: Yes. It was okay.

END

## Appendix 9: Table showing overlap between mothers’ and health professionals’ interviews

|  |  |  |  |
| --- | --- | --- | --- |
| **Themes** | **Quotes from mothers** | **Health Professionals’ Quotes** | **Conclusion** |
|
| **Breastfeeding culture**   * **Naturalness of breastfeeding** | *“…mothers must feed their child, it’s only natural that we do.” (M5)*  *“…it just felt natural that a mother is supposed to breastfeed unless otherwise yeah if you have conditions…” (M2)*  *“…all I know is that when the woman gives birth to a child, naturally the breast milk starts coming out from the woman’s breast for the baby to suck on…” (M9)* | *“African women just tend to have a positive mindset that this [breastfeeding] is a natural thing that is going to happen.” (HP14)*  *“It’s very natural to African mums to breastfeed… for this group of mums it’s more natural than maybe in other cultures.” (HP8)*  *“I feel they're very laid back. They don't worry about it. They just assume that's normal…they just know that their milk is going to come in eventually” (HP 14)*  *“…some of us feel that perhaps, African mothers may be more prone to breastfeed… but actually thinking about it, I don’t think I saw all African mothers breastfeed their babies… I just didn’t feel like there was a huge difference.” (HP13)* | **Agreement mostly** |
| * **Decision making/Choice** | *“I was like they actually ask you like are you gonna breastfeed or not, where in Africa, that’s not an option for you to, that’s not even a discussion… we believe it’s part of being a mother, being able to feed your child” (M6)*  *“…if you choose not to breastfeed here they don’t question you they say oh it’s your choice [yeah] they’ll give you all the options…but in Africa, you have to breastfeed whether you like it or not it’s a must (M2)*  *“I find it [being asked] weird because I thought as a mother, that’s the only way you should feed your child, for a start. You can’t give birth to the child, and then say, “No, she’s just going to have to have a bottle.” Because I grew up where you have to breastfeed, not a bottle.” (M16)* | *“…they’ve [African mothers] all wanted to breastfeed and been very positive about it, not sort of even, “well I’m thinking about it”, they’ve all definitely wanted to breastfeed and then they do breastfeed when their baby is here” (HP1)* | **Agreement** |
| * **Barriers to breastfeeding – health** | *“it should be a necessity except otherwise… say mother cannot breastfeed because she is sick or in the case where the mum dies while giving birth or things like that” (M11)*  *“a mother is supposed to breastfeed unless otherwise, if you have conditions, some people they produce certain kind of milk that is harmful to the baby.” (M2)* | *“I do tend to find that the majority tend to breastfeed, exclusively breastfeed. Unless, obviously, for medical reasons we may have suggested that they need to do additional top-ups. So, that sometimes does happen, but the majority of the time, from experience, it’s been exclusively breastfeeding.” (HP15)*  *“They [African mothers] just don’t think about bottle feeding… except in a case of if there are allergies in the family, if they think the baby’s going to be allergic, which usually quite quickly that’s evident. Otherwise, it would just be mainly [breastfeeding]” (HP6)*  *“Unless, obviously, for medical reasons we [health professionals] may have suggested that they need to do additional top-ups... If the baby’s not ready to breastfeed, or it’s a small baby, or it’s had low sugar, things like that. Sometimes that can interfere with it [breastfeeding], but generally I find that African women just get on with it.” (HP15)* | **Agreement** |
| * **Mother’s diet** | *“…you have to eat specific food that will help you produce more milk, specific food that produces more milk in Africa … certain beans will produce more milk …certain drinks will produce more milk … lentils …, the Guinness mighty malt drink (M2)*  *“…we promote obviously foods that will help you get the milk in the first place… we believe in having like softer foods for the mother, em whereas here I think it’s a bit different, like in the hospital I got like sandwich and small little tub of juice and em yes it’s going to produce milk but not as much…” (M6)* | *“…and they always have lovely food brought in for them…” (HP14)* | **Some agreement** |
| * **BF reality/experience** | *“I think it’s easy when you see other people doing it but it’s a very different experience when you do it yourself, you look at them and … oh I can do that and then you suddenly go through childbirth, you got through all these changes in your body and then you think okay this isn’t as easy as I thought it’s going to be” (M3)* |  | Silence |
| * **Challenges** | The mothers experienced challenges and wished they had been informed properly of the possibility of challenges before they started breastfeeding (M4, M3) .... Mothers who had been informed had a better experience with breastfeeding. | *“I find from the African mums, they need very little support. Actually, it appeared to come quite natural to them. It’s not very often I have to assess and show them how to position or anything like that the baby. It all appears just quite natural.” (HP10)*  *“On the whole, I’d say most black African mothers do breastfeed and have very few problems with it, because it’s the norm.” (HP8)* | **Disagreement** |
| * **Barriers to breastfeeding**   **- Effect of more than one child** | *“Well, because he was my third I was able to cope better. I believe that with other mothers, if it's their first, the soreness could put them off because it's quite painful, and then to keep giving to your child.” (M12)*  *“I think when you have a second child, it [breastfeeding] can become less likeable just because you’ve got the first one and it’s almost like a chore to breastfeed the second one, so you really have to push yourself… I had like a screaming toddler around so breastfeeding was a bit stressful… because I felt the pressure of oh quick quick quick, I have to feed you quickly and then deal with… attend to her.” (M3)*  *“…my first child, I was told to do exclusive because it’s very good, so I didn’t give her any other food... so it’s really really hard and then I tried to introduce milk for her when she was like eight months, but she wouldn’t take it… I have it in my mind that if I have another child I would not try breastmilk, it will be for a short time. I may give her like for one year, but I would not do breastmilk only, I’ll introduce some other food.” (M8)* | *“We do have some black African mums who may choose to top up with a formula feed… I do have one mum, actually, who I can think of, who has got another four children. And she’s a single mum and she has to travel quite a distance to and from school, so she breastfeeds less...” (HP8)*  *“…there was a set of twins, but she decided that she would mix feed because she had five other children at home. There were deciding factors, so she was mixed feeding, but she had breastfed her other children. I think if there weren't so many children.” (HP14)* | **Silence**  **Agreement**  Silence |
| * **Breastfeeding initiation/duration** | *“… it [breast milk] didn’t come immediately… I gave her formula… So when I got home, it started coming out, though I was expressing because I could not place her head…* *I gave her formula at night, then during the day I tried as much as possible to breastfeed her.” (M15)*  *“…in the beginning, I didn’t [breastfeed] because she came early. Yes, and I think there wasn’t any milk coming from my breast… until, like around two weeks. Then … she prefers the bottle. So, the only thing we do now is express into the bottle … for me not to be able to breastfeed her at the beginning. I felt really bad.” (M13)*  *“…but she was feeling even hungry because the milk didn’t come out, it comes out after a day or two so I just said oh let me give her formula” (M2)* | *“…African mothers I find exclusively breastfeed. They haven’t given a supplement, not even initially in the first few days where maybe the mum’s milk isn’t coming in very well and they start a supplement, I don’t find that, they all exclusively breastfeed.” (HP1)*  *“The majority of them would exclusively breastfeed… they will still continue to breastfeed once they start to wean them from six months.” (HP10)*  *“I think that if they were left to their own devices they would just exclusively breastfeed but be more laid back…” (HP14)* | **Disagreement** |
| * **Perceived duration of breastfeeding** | *“Yeah but to me if a child is eating so why are you breastfeeding for two years” (M8)*  *“…definitely over a year, maybe till like three four, probably late into toddlerhood.” (M5)*  *“…they say they breastfeed kids until … the baby comes and says mummy I want yunyun [breast].” (M1)* |  | **Silence** |
| * **Complementary feeding** | *“With my children, all the babies' bottled food, they never had any of it… the custom or tradition or belief of what happened back home came. When I went to solids, I knew I needed to give them mashed potato, the sorts of things they fed me with, like mashed potato, fufu, semolina, those sorts of things, just plain... They need to give them bread and just ovaltine, no sugar in it. Those were the things that I knew were good”. (M12)*  *“I started doing the food that I eat, I give her a pinch to have a taste and then I gave her chicken to hold and try … But between the six and the eight months it’s mostly baby food, like blending fruits, blending banana, all of that.” (M11)*  *"The first thing I started giving to him is infant milk, I give him… normal food like cerelac, baby food … and also… pap… so even up to today, he’s still taking his pap.” (M4)* | *“Rather than buying jars and packets, which we advise not to. They’re more likely to give family foods, which is what we would recommend.” (HP8)*  *“There are foods, cereal based foods, like Cerelac, that are on the shelves, which some black African and Asian families will buy and use… I think there’s something, traditionally or culturally, around those foods on the shelf that parents feel that they need to give…” (HP2)*  *“Sometimes, we have to overcome some cultural ideas about weaning that people are used to, and I think the most common one is adding solids to a bottle and giving them to a child… Cerelac, that’s quite common, celerac into the bottle.” (HP8)*  *“…sometimes some of the babies can become quite large. So, potentially being over-fed. So maybe… that breastfeeding is so easy... they just breastfeed…not such a worry when they’re being just breastfed, but then the breastfeeding continues, and the baby then starts to eat food, and … the breastfeeding actually doesn’t reduce, and then you have babies who are very large.” (HP2)* | **Agreement** |
| * **Knowledge of breastfeeding** | *“I didn’t know much about that [exclusive breastfeeding] until I had a baby and joined a bunch of mum groups … I mean I just thought that breastfeeding was breastfeeding” (M5)*  *“Exclusive breastfeeding is when a baby is fed with only breastmilk for the first six months of his life.” (M9)*  *“I didn’t know breastfeeding is something that you need to learn... there’s actually a way of putting the baby for you to feel comfortable, with your back, and for the baby as well to be able to get as much milk without hurting you...” (M11)*  *“I thought all you do is just oh just pop the baby on it’s fine but there’s actual an actual technique to it…” (M3)* | *“I found that whatever the age, it didn’t matter the age, very young mums would just know the cues straightaway and just pick the baby up… I didn’t have to talk about positioning, she just knew the position… I think because she was so skilled at it” (HP1)* | **Disagreement** |
| * **Desire for big babies** | *“…back in Tanzania… you have to like weigh your child so the bigger the child is, the more they know you breastfeed, the more you know you’re taking care of your baby, something I think is a bit different from what I’ve seen here… more like oh no you can be obese…” (M6)*  *“…my baby … she’s this child that everybody wants to carry her, everybody wants to ask me what are you feeding her because she was really chubby and they tell me I want my baby to be like your baby ...” (M7)* | *“I think I have found a high number of children whose weight is very high when they become a toddler... it’s because when they’ve weaned them on cow’s milk they give them a lot of milk as well as food … they’re giving them too much milk because they think they need the milk to make them strong… So they’re more likely to be overweight … because they think the baby should be fatter, because that is a sign of health, a fat baby.” (HP8)*  *“They seem to like chunky babies… they want chunky babies, they do… some of them are disappointed when you show them and they’re following the line lovely, “Oh no, but why aren’t they bigger? Why haven’t they put on more?” (HP7)* | **Agreement** |
| * **Breastfeeding in public** | *“everywhere I have been, I go, I sit, I breastfeed in public. I don't mind.’ (M12)*  *“…very confident… I can breastfeed my child anywhere…everywhere because it’s the right of my child.” (M4)*  *“I didn’t get any weird uncomfortable stares. I think for the first few months I was covering myself trying to be polite but after a while I was just like whatever, he’s eating, if it bothers you look away.” (M5)*  *“In my culture… they didn’t have like aprons or anything, they just did it out there. I think here it’s a bit more reserved.” (M3)*  *“…people that side [in Africa] are used to that, it’s like it’s a normal organ on your body especially when you’re a mother it’s fine you can just [breastfeed]…” (M6)*  *“I don’t think I will breastfeed in an open place but if I have to, maybe I’ll cover or use something to cover up…” (M7) –* It appears that the understanding of breastfeeding in public may have been different between mums and HPs.  That’s not really the case. The thing is they might not feel 100% comfortable breastfeeding in public but it doesn’t change their decision to breastfeed. Also, their cultural background may also help to boost their confidence.  *“the disadvantage of this breastfeeding is like when you go out and you’re doing exclusive, so you have to start looking for where to sit down and breastfeed. If they’re on bottle like they’re taking formula, you can easily just make it and give it to them…even when you’re trying to cover up, like my first daughter… she’ll just pull everything.” (M8)*  **No Muslim mothers interviewed** | *“I think they’re very confident with it [breastfeeding in public] and don’t bat an eyelid. Because you do get some that are straight away, “No, we don’t …” but black African mums do tend to be just like, “Don’t care.” … it’s just, “I’m feeding my baby.” (HP7)*  *“…But of course you have Muslim black African women and you have Christian black African women, so actually… because there are some different… with their religion. I don’t see so many, but there are some black African women and they would not be breastfeeding in public… it does affect their breastfeeding, they get less breastmilk.” (HP8)*  *“So, breastfeeding in public, we talk to mums about it, they’re quite happy to do it. They’ll say, “Oh, no, that’s not a problem. I go to this place,” or, “I took something,” there’s all sorts of shawls and scarfs, and that. Yes, so, with my African mums, I haven’t had any say, “Oh, I'm not going to do it in public. I'll take a bottle,” but with our Asian mums, that tends to be the case, that they would use a bottle in public.” (HP6)* | **Agreement** |
| **Information gathering**   * **HPs** | *“Back home, I think they leave it for nature to take its course. Maybe the professional just believe that because they live in that environment where everybody breastfeeds, therefore I don't need to tell you that you need to breastfeed again because your culture demands that you have to.” (M12)* | *“I think once you explain, they do tend to think, “Ah, right, yes.” … [it’s about] how you approach it.” (HP7)* |  |
| **Support network**   * **Sources of support** * **HPs** | *“the support is just like mentoring you, not physical, not financial support, not any other support.” (M4)*  *“… [Health professionals] kept giving me advice here and there, making me know if I had any challenges they were there, I could call. So even though there was no ‘home’, like relative and all, I still was comfortable because they kept assuring me that everything was all right.” (M18)*  *“We don’t have the support that we have here…like coming to show you how to breastfeed and getting comfortable with it…but we have support in other ways…” (M11)*  *“If I want to compare the support, I would say I have little or none…but looking at the environment that we are in, with limited resources, I would say I did [have sufficient support] because the midwife was very good. The health visitor was great. They came whenever they needed to, to say, "Hello," and to check on me to make sure I was okay.” (M12)*  *“I didn’t really have any support from anyone other than the hospital, the hospital calling me… I was really happy about it… all the support I got were good and nice…” (M15)* | *“…we just presumed, which we shouldn’t do, we just thought that she would breastfeed. I think she had six children, and she had twin girls, and she was bottle feeding those twins.” (HP15)*  *“I feel like we do take it for granted a bit, that these mums are fine. I feel a bit guilty now that I'm sitting, talking.” (HP3)* | **Disagreement** |
| * **Family** | *“my mum was the one who practically took over the house. The cleaning, and cooking, and everything” (M14)*  *“… I used to wake up in the night, breastfeed and he [husband] would take the baby off me and actually go into a completely different room to give me space to maybe go and get a drink… or have something to eat… and it helped me sleep as well.” (M3)*  *“…the sleepless nights, sometimes you get it continuously, but if you have support it would have been nice… it was challenging because sometimes I'd go to bed at 3am or 4 in the morning, but I need to be up by 6 or 7 to get the other two ready for school…if my mum was here or my mother-in-law and things like that, it would have made it much easier because on the days like that I'm sure she would say, "I will have the baby. You go and rest."” (M12)*  *“It might have been easier because if I had support, if she’s sleeping then I can have time to eat, then, I [will] have enough milk … it would be easy.” (M8)*  *“… unfortunately, here my partner was not doing it [helping], it was like me, me, me… really because I’m not working here… it doesn't make much difference whether you have support or not. Maybe I will give thanks to whatever medication or help I got from the hospital because after my CS in Ghana…the sore was so painful… you were given so many instructions…so it means you really needed someone… but here… I was just home, home, I could do my household chores and still take care of my baby without any support or any help from anyone, and I didn't even feel frustrated or anything, I was very fine.” (M18)* | *“Well, if they've got family, their family are very supportive. Mothers come and sit and help and they always have lovely food brought in for them…I think they do have good support.” (HP14)*  *“It seems like they always have a good family network, it seems like that. It comes across, I can’t comment for everybody, but it seems as though they’re quite happy...” (HP15)*  *“But the fathers are very… I’ve not noticed this specifically, breastfeeding-wise, but I think the men seem to have a lot of control and are quite persuasive… forward.” (HP7)*  HPs mentioned that mothers desired the practical support more than emotional or technical – *“In the families that I worked with, the husbands were quite supportive and supported breastfeeding as well so that had an impact on their choices… it's that practical and emotional support… if women haven't got that and if their partner or their husband isn't supportive, that adds to the burden as well… those kind of common things that put pressure on women to stop breastfeeding” (HP9)*  HPs believe that the mothers have support, even if not family, they’ve got friends and church (and mothers agree) but mothers who haven’t got family still crave the practical support. Hence the practical support received from friends and family is usually insufficient (especially during the night) as these will return to their homes and leave the mothers by themselves. | **Agreement** |
| * **Friends** | *“…for my friend, she was always there to make sure I was feeding the baby properly and eating well… she cooked for me for three months, I didn’t stand there in the kitchen until the evening.” (M11)*  *“…my best friend… from my pregnancy… wouldn't even let me touch a needle… will clean, cook for my husband, do everything… when I had the baby… even when I wanted to put clothes in the washing machine… wouldn't let me do it… even take her away for a while so I can get rest.” (M13)* | *“A lot of support within the community, in the black African community… most of the black African ladies that I know have got a really good social network of other black African women who aren’t necessarily- not relatives.” (HP8)* | **Agreement** |
| * **Church support** | *“… if I was struggling that they [church members] would just come round and kind of take over once I’ve finished breastfeeding, they would take the baby off me… they’ll actually talk to me about it, they’ll say how are you feeling, explain how you’re feeling… and give me a couple of hours to sleep, I felt better with myself… and I could see my child in a different light rather than arrggh you’re stressing me out… [church] people cook meals for the family, so actually that took a lot of pressure off me because that was something I was worried [about]…” (M3)*  *“my church members… really did well… They came, see us for about a week and a half, everyday they will come different people. They’d come and visit, be here with us talk to us…” (M1)* | *“Say if a mum has moved up from Africa. I say, "Have you got any friends?", "Oh yes." They can't believe I'm asking if they've got no friends, because the Church is a massive thing. That is a massive support. That's huge…” (HP3)*  *“… a lot of them have a lot of support from church… not relatives, but they will call them sisters, and a lot of it is through their church. I don’t know if the Muslim black Africans have as much support, actually.” (HP8)*  *“… to be honest, lots of even the asylum-seeking mums that we might have tend to have a friend or someone somewhere. So they have their own network, and church seems to play a large [part]… they will refer to church friends, or religion, as being their community.” (HP2)*  *“Well, I think if they haven’t got the church support, they may not have as much support.” (HP10)* | **Agreement** |
| * **Pressure from support circle** | *“… the breastfeeding group were very persistent, like when I say persistent, I mean per-sis-tent. They will text me, if I didn’t answer text, get the letter through the mail, call a few times a day, they called me like three times a week… I had to be the one to initiate a cut off from them” (M5)*  *“it was like so much so much pressure like this person has agreed to breastfeed, let’s make sure she breastfeeds” (M6)*  *“…it was frustrating because my sister-in-law thought that I didn’t want to breastfeed. They were judging me. Like, whenever I say, “Oh, this milk is still not coming,” they’ll be like, “You just don’t want to breastfeed because you’re thinking of going to uni, or you still want to be a young girl… Pressure everywhere, yes. Anyone that comes in, the first thing that’ll do, “Why are you not breastfeeding her?”…some of them were just visiting to see if I’m breastfeeding” (M13)*  *“when I stopped [breastfeeding] at nine months…she [infant’s grandmother] was like “no, you need to do it for longer because its good for the child, its good for you” … I did feel the pressure to, and I tried, I tried, I did put her on but … she just didn’t want it…” (M3)* | *“… I have met a few families where mums have asked me about maybe adding formula feed, but the fathers have been very against it, and quite pushy, “No, breastfeeding’s best for your baby.” I have come across that with a couple of families. That they have really pushed them to breastfeed when they have maybe wanted a little break from it…” (HP8)* | **Some agreement and some silence** |
| * **Valued sources of support + Response** | *“I think I trust more the Health visitors.” (Mother 9)* | *“They really accept, and are receptive to, health visiting input.” (HP3)*  *“…the African ladies that we see are all very happy to take on any advice that we give… I think they’re very happy that they have this service to reflect on… and you know, people [African mothers] follow advice... They want the best for the child…” (HP8)* | **Agreement** |
| * **Engagement with support groups** | Mothers spoke about engaging with services from HP and signposted services | *“I find they engage really well [with community groups].” (HP1)*  *“I think it’s quite different if it’s a mum with a first baby, who wants all the advice, but I think sometimes some mums who have got quite a few children, quite a busy life, take them to and from school, sometimes don’t really want the intervention of somebody else. They want to just get on with their lives...” (H8)*  *“No not really, I think they just get on with it, they have their own church group.”(HP18)* |  |
| * **Sufficient/Not?** | Most mothers said yes | HPs thought that the mothers had a good support network |  |
| **Barriers**   * **Language** | Only English speaking mothers were interviewed | *“I think the only thing might be language barrier… because some people have limited understanding of English but they will nod in the right places and I think does she understand or she’s just nodding… so I’ll have to use an interpreter and sometimes that can be difficult as well…” (HP1)*  *“I think sometimes there’s a language barrier, which makes it harder, I think, for people to help… if there is a language barrier, it’s kind of hard to… You don’t want to make people feel awkward either by asking questions and they don’t know what they mean. They don’t understand, and they get worried. It’s creating problems where you shouldn’t type of thing.” (HP13)* | **Silence** |
| * **Mental health** |  | *“… sometimes they don’t recognise it [mental health] in the same way as we do… they believe there’s… some sort of animistic kind of thing… or they talk about it in terms of physical symptoms… than actual emotional symptoms… a lot of my African mums are quite religious,… and they see it as a sort of spiritual battle or something between evil and good… and not want to admit to it if they are feeling not so good but they’ll say something about their religion, that God is our strength or something like that, as if that is going to sort of solve the problem.” (HP18)*  *“You have to ask them. I don’t think they would just come out and say… because they might tell you they’re fine, but then you might actually see that they’re really low on the [assessment].” (HP7)* | **Silence** |

## Appendix 10: Reflexive notes – samples

I have included here excerpts from my research diary.

02/05/2017– Diary entry pre-interview

I am having my first interview today and I feel quite excited but also uncertain about what to expect. I am mostly concerned about managing silence and allowing time for the mum to say more during the silence.

02/05/2017 – Dairy entry post-interview

I feel like I had a really good first interview and had a good rapport. New interesting thoughts came out of this interview that I will need to explore in a lot more detail in future interviews.

10/05/2017 Diary entry post -supervisory meeting

Speaking with Judy today about my first 2 interviews, I feel a lot more confident about interviewing and the emerging data. Knowing that ‘no findings’ can be a finding in itself makes me feel less worried about a mother not supplying as much information as I expect. I just need to ensure that I have tried to prompt and encourage sharing of information as much as possible.

14/05/2017 – Dairy entry post- interview

I didn’t feel like I build a rapport as I interviewed Mother 2. I felt like she was unwilling to divulge information although she also seemed distracted by her infant quite a lot. It was a struggle to get her to speak at length or in-depth.

14/06/2017 – Dairy entry post-interview

Mother 8 had a very different and interesting perspective to breastfeeding based on her personal experience. It’s different from all others I have interviewed so far and I wonder if there may be any others that share similar views. She had fed her first bady with breastmilk and water only for the first 12 months as advised by a friend and was unwavering in her decision even when advised to introduce solids by health professionals. She felt the health professionals did not understand her culture and were suggesting an English approach.

11/07/2017 – Dairy entry post- interview

I experienced a lot of communication challenge with this interview as it was evident that English is not her first language. But I like that I took my time with her and she used images and objects to express herself. I don’t think I managed the silence very well though – I think I was too quick to step in once there was a little silence and may have missed some thoughts she was trying to communicate. I will need to practice and get better at managing silence during an interview.

25/09/2017 – Diary entry pre-interview

This is my first health professional interview and I feel more confident about interviewing than I felt with the mothers especially because I have been informed that health professionals are more likely to volunteer information.

09/10/2017 – Dairy entry

As I continue to analyse my data – transcription, coding etc and think about the emerging data, I am becoming more aware of things that I have experienced as a mother in the UK that I have not necessarily paid much attention to until now.

31/10/2017 – Diary entry post-interview

The interviews with health professionals have been very enlightening but this one came out with a new idea about a difference in experience between Christian and Muslim mothers. I need to try to recruit Muslim mothers and hear their thoughts.

06/11/2017 – Diary entry pre-interview

I like that I am getting health professionals that work in various settings and different capacities to interview because then I can compare what happened in different settings – within hospital, SCBU, community, and even 9 moths postpartum. But so far, majority of the health professionals have expressed similar thoughts about African mothers.

01/05/2018 – Diary entry post-supervisory meeting

It felt really good to just talk about my research and that helped to clear my thoughts and give me a structure to writing up my findings. I was feeling really overwhelmed with having so much data and not knowing where to start off trying to group them into themes but just talking about it has helped me to arrive at the core themes that have emerged. I know that the themes may still evolve as I continue to analyse, having a structure to start with should make the process less daunting.

05/05/2018 – Diary entry during analysis

I am thinking of returning to NViVo to complete my analysis of data because I find that the ones I have done manually are stressing me a bit – scrambling through papers and the mess it creates. I have already coded most of my transcripts’ data in NViVo but I thought the software was stressful to use. Comparing it to working manually, I think it is so much better and tidier and I just need to get better at using the software. This definitely means a little extra work to transfer what has been done manually into the software but I’m sure it will pay off in the end. And afterall, I will have gained knowledge of using the software once my PhD is done.

# References

1. UNICEF. Breastfeeding 2015 [updated 29th July 2015; cited 2016 3rd April]. Available from: <http://www.unicef.org/nutrition/index_24824.html>.

2. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS. How many child deaths can we prevent this year? The Lancet. 2003;362(9377):65-71.

3. Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M, et al. Maternal and child undernutrition: global and regional exposures and health consequences. The Lancet. 2008;371(9608):243-60.

4. Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. The Lancet. 2016;387(10017):475-90.

5. UNICEF. Programme guide: Infant and young child feeding. New York: UNICEF; 2011 [updated 2011; cited 2019 May 12]. Available from: <https://www.unicef.org/nutrition/files/Final_IYCF_programming_guide_2011.pdf>.

6. The World Bank. World Bank Country and Lending Groups 2018 [cited 2018 24th July]. Available from: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

7. Kramer MS. "Breast is best": The evidence. Early Human Development. 2010;86(11):729-32.

8. Cunningham AS, Jelliffe DB, Jelliffe EF. Breast-feeding and health in the 1980s: a global epidemiologic review. The Journal of Pediatrics. 1991;118(5):659-66.

9. Duijts L, Ramadhani MK, Moll HA. Breastfeeding protects against infectious diseases during infancy in industrialized countries. A systematic review. MaternAL & Child Nutrition. 2009;5(3):199-210.

10. Hanson LA, Korotkova M, Haversen L, Mattsby-Baltzer I, Hahn-Zoric M, Silfverdal SA, et al. Breast-feeding, a complex support system for the offspring. Pediatrics international. 2002;44(4):347-52.

11. Riordan JM. The cost of not breastfeeding: a commentary. Journal of Human Lactation. 1997;13(2):93-7.

12. VanDerslice J, Popkin B, Briscoe J. Drinking-water quality, sanitation, and breast-feeding: their interactive effects on infant health. Bulletin of the World Health Organization. 1994;72(4):589-601.

13. Kanaaneh H. The relationship of bottle feeding to malnutrition and gastroenteritis in a pre-industrial setting. The Journal of Tropical Pediatrics and Environmental Child Health. 1972;18(4):302-6.

14. Mitchell EA, Taylor BJ, Ford RP, Stewart AW, Becroft DM, Thompson JM, et al. Four modifiable and other major risk factors for cot death: the New Zealand study. Journal of Paediatrics and Child Health. 1992;28 Suppl 1:S3-8.

15. UNICEF. Breastfeeding on the worldwide agenda: findings from a landscape analysis on political commitment for programmes to protect, promote and support breastfeeding. New York: UNICEF; 2013.

16. United Nations. Sustainable Development Goals: 17 goals to transform our world 2015 [cited 2016 29 March]. Available from: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

17. Dewey K, Heinig M, Nommsen L. Maternal weight-loss pattern during prolonged lactation. American Society for Clinical Nutrition. 1993;58(2):162 - 6.

18. Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease. Lancet (London, England). 2002;360(9328):187-95.

19. Labbok MH. Effects of Breastfeeding on the Mother. Pediatric Clinics. 2001;48(1):143-58.

20. Tung KH, Goodman MT, Wu AH, McDuffie K, Wilkens LR, Kolonel LN, et al. Reproductive factors and epithelial ovarian cancer risk by histologic type: a multiethnic case-control study. American Journal of Epidemiology. 2003;158(7):629-38.

21. Riman T, Dickman PW, Nilsson S, Correia N, Nordlinder H, Magnusson CM, et al. Risk factors for invasive epithelial ovarian cancer: results from a Swedish case-control study. American Journal of Epidemiology. 2002;156(4):363-73.

22. Mezzacappa ES. Breastfeeding and Maternal Stress Response and Health. Nutrition Reviews. 2004;62(7):261-8.

23. Hart S, Boylan LM, Carroll S, Musick YA, Lampe RM. Brief Report: Breast-fed One-Week-Olds Demonstrate Superior Neurobehavioral Organization. Journal of Pediatric Psychology. 2003;28(8):529-34.

24. Rea MF. [Benefits of breastfeeding and women's health]. Jornal de pediatria. 2004;80(5 Suppl):S142-6.

25. World Health Organisation. Infant and young child feeding 2018 [updated 2018 16th February; cited 2018 21st May]. Available from: <https://www.who.int/en/news-room/fact-sheets/detail/infant-and-young-child-feeding>.

26. UNICEF. Breastfeeding: a mother's gift, for every child. 2018 [cited 2019 20th May]. Available from: <https://www.unicef.org/publications/files/UNICEF_Breastfeeding_A_Mothers_Gift_for_Every_Child.pdf>.

27. Scientific Advisory Committe on Nutrition (SACN) Subgroup on Maternal and Child Nutrition (SMCN). Paper for discussion: introduction of solids. Agenda item: 3. 2003.

28. UNICEF. Breastfeeding Could Save the NHS Millions, says New Report 2012 [26 May 2013]. Available from: <http://www.unicef.org.uk/BabyFriendly/News-and-Research/News/Breastfeeding-could-save-the-NHS-millions/>.

29. World Health Organisation. Maternal, newborn, child and adolescent health: increasing breastfeeding could save 800 000 children and US$ 300 billion every year [cited 2019 21st May]. Available from: <https://www.who.int/maternal_child_adolescent/news_events/news/2016/exclusive-breastfeeding/en/>.

30. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, et al. Why invest, and what it will take to improve breastfeeding practices? The Lancet. 2016;387(10017):491-504.

31. Public Health Policy and Strategy Unit. Improving outcomes and supporting transparency. Part 2 Summary technical specification of public health indicators. London: Department of Health; 2016 [updated August 201620 May 2019]. Available from: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/545605/PHOF_Part_2.pdf>.

32. UNICEF. Breastfeeding in the UK 2019 [cited 2019 20th May]. Available from: <https://www.unicef.org.uk/babyfriendly/about/breastfeeding-in-the-uk/>.

33. Relton C, Strong M, Thomas KJ, Whelan B, Walters SJ, Burrows J, et al. Effect of Financial Incentives on Breastfeeding: A Cluster Randomized Clinical Trial Effect of Financial Incentives on Breastfeeding Effect of Financial Incentives on Breastfeeding. JAMA Pediatrics. 2018;172(2):e174523-e.

34. Singletary N, Chetwynd E, Goodell LS, Fogleman A. Stakeholder views of breastfeeding education in schools: a systematic mixed studies review of the literature. International Breastfeeding Journal. 2017;12:14-.

35. Renfrew M.J. PS, Quigley M., McCormick F., et al. Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK. United Kingdom; 2012 October 2012.

36. McAndrew F, Thompson J, Fellows L, Large A, Speed M, Renfrew MJ. Infant Feeding Survey 2010. 2012 20 November 2012.

37. Earle S. Factors affecting the initiation of breastfeeding: implications for breastfeeding promotion. Health Promotion International. 2002;17(3):205-14.

38. Choudhry K, Wallace LM. 'Breast is not always best': South Asian women's experiences of infant feeding in the UK within an acculturation framework. Maternal & Child Nutrition. 2012;8(1):72-87.

39. Ingram J, Johnson D, Hamid N. South Asian grandmothers' influence on breast feeding in Bristol. Midwifery. 2003;19(4):318-27.

40. Ingram J, Cann K, Peacock J, Potter B. Exploring the barriers to exclusive breastfeeding in black and minority ethnic groups and young mothers in the UK. Maternal & Child Nutrition. 2008;4(3):171-80.

41. Hufton E, Raven J. Exploring the infant feeding practices of immigrant women in the North West of England: a case study of asylum seekers and refugees in Liverpool and Manchester. Maternal & Child Nutrition. 2016;12(2):299-313.

42. Twamley K, Puthussery S, Harding S, Baron M, Macfarlane A. UK-born ethnic minority women and their experiences of feeding their newborn infant. Midwifery. 2011;27(5):595-602.

43. Office of National Statistics. Population of the United Kingdom by Country of Birth and Nationality. Dataset: Stock Table 1.1 2019 [updated 24 May 2019; cited 2019 27 May]. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/datasets/populationoftheunitedkingdombycountryofbirthandnationality>.

44. Cai X, Wardlaw T, Brown DW. Global trends in exclusive breastfeeding. International Breastfeeding Journal. 2012;7(1):1-5.

45. UNICEF. Infant and young child feeding 2018 [updated July 2018; cited 2019 17 May]. Available from: <https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/>.

46. Balogun OO, Dagvadorj A, Anigo KM, Ota E, Sasaki S. Factors influencing breastfeeding exclusivity during the first 6 months of life in developing countries: a quantitative and qualitative systematic review. Maternal & Child Nutrition. 2015;11(4):433-51.

47. Ibanez G, Martin N, Denantes M, Saurel-Cubizolles MJ, Ringa V, Magnier AM. Prevalence of breastfeeding in industrialized countries. Revue d'Epidemiologie et de Sante Publique. 2012;60(4):305-20.

48. World Health Organisation. The World Health Organization's infant feeding recommendation 2001 [Available from: <http://www.who.int/nutrition/topics/infantfeeding_recommendation/en/>.

49. Dop MC. [Breastfeeding in Africa: will positive trends be challenged by the AIDS epidemic?]. Sante (Montrouge, France). 2002;12(1):64-72.

50. UNICEF. Failing to breastfeed costs the global economy around US$302 billion every year. 2019 [cited 2019 24 May]. Available from: <https://www.unicef.org.uk/babyfriendly/lancet-increasing-breastfeeding-worldwide-prevent-800000-child-deaths-every-year/>.

51. Bhattacharjee NV, Schaeffer LE, Marczak LB, Ross JM, Swartz SJ, Albright J, et al. Mapping exclusive breastfeeding in Africa between 2000 and 2017. Nature Medicine. 2019;25(8):1205-12.

52. Arts M, Geelhoed D, De Schacht C, Prosser W, Alons C, Pedro A. Knowledge, Beliefs, and Practices Regarding Exclusive Breastfeeding of Infants Younger Than 6 Months in Mozambique: A Qualitative Study. Journal of Human Lactation. 2010.

53. Audet CM, Burlison J, Moon TD, Sidat M, Vergara AE, Vermund SH. Sociocultural and epidemiological aspects of HIV/AIDS in Mozambique. BMC International Health and Human Rights. 2010;10:15-.

54. The World Bank Group. Stigma Borne With Hope: Mothers, Children Face Dual Challenges 2013 [Available from: <http://go.worldbank.org/3LBFOEB7H0>.

55. Fjeld E, Siziya S, Katepa-Bwalya M, Kankasa C, Moland KM, Tylleskär T. 'No sister, the breast alone is not enough for my baby' a qualitative assessment of potentials and barriers in the promotion of exclusive breastfeeding in southern Zambia. International Breastfeeding Journal. 2008;3(1):1-12.

56. Kamudoni P, Maleta K, Shi Z, Holmboe-Ottesen G. Infant Feeding Practices in the First 6 Months and Associated Factors in a Rural and Semiurban Community in Mangochi District, Malawi. Journal of Human Lactation. 2007;23(4):325-32.

57. Agunbiade OM, Ogunleye OV. Constraints to exclusive breastfeeding practices among breastfeeding mothers in southwest Nigeria: implications for scaling up. International Breastfeeding Journal. 2012;7(5).

58. Ogbo FA, Agho KE, Page A. Determinants of suboptimal breastfeeding practices in Nigeria: evidence from the 2008 demographic and health survey. BMC Public Health. 2015;15(1):1-12.

59. World Health Organisation. Infant nutrition: Data by country 2015 [updated 14 August 2018; cited 2019 21 May]. Available from: <http://apps.who.int/gho/data/node.main.52?lang=en>.

60. Kakute PN, Ngum J, Mitchell P, Kroll KA, Forgwei GW, Ngwang LK, et al. Cultural Barriers to Exclusive Breastfeeding by Mothers in a Rural Area of Cameroon, Africa. The Journal of Midwifery & Women’s Health. 2005;50(4):324-8.

61. Daglas M, Antoniou E. Cultural views and practices related to breastfeeding. Health Science Journal. 2012;6(2):353.

62. National Institute of Population Research and Training (NIPORT), Mitra and Associates, ICF International. Bangladesh Demographics and Health Survey 2011 USA: NIPORT; 2013 [29 March 2016]. Available from: <http://dhsprogram.com/pubs/pdf/fr265/fr265.pdf>.

63. UNICEF. A successful start in life: improving breastfeeding in West and Central Africa: UNICEF; 2010 [cited 2019 21 July]. Available from: <https://www.unicef.org/infobycountry/files/wcaro_improving_breastfeeding_en.pdf>.

64. Kruger R, Gericke G. Breastfeeding practices of mothers with children (aged 0-36 months) in a rural area of South Africa: A qualitative approach. Journal of Family Ecology and Consumer Science. 2001;29:60 - 71.

65. Otoo GE, Lartey AA, Perez-Escamilla R. Perceived incentives and barriers to exclusive breastfeeding among periurban Ghanaian women. Journal of Human Lactation. 2009;25(1):34-41.

66. Tamiru D, Belachew T, Loha E, Mohammed S. Sub-optimal breastfeeding of infants during the first six months and associated factors in rural communities of Jimma Arjo Woreda, Southwest Ethiopia. BMC Public Health. 2012;12:363.

67. Ahmed A, el-Guindy SR. Breastfeeding knowledge and attitudes among Egyptian baccalaureate students. International Nursing Review. 2011;58(3):372-8.

68. Aborigo RA, Moyer CA, Rominski S, Adongo P, Williams J, Logonia G, et al. Infant nutrition in the first seven days of life in rural northern Ghana. Pregnancy & Childbirth. 2012;12:76.

69. Oche MO, Umar AS, Ahmed H. Knowledge and practice of exclusive breastfeeding in Kware, Nigeria. African Health Sciences. 2011;11(3):518-23.

70. Okafor I, Olatona F, Olufemi O. Breastfeeding practices of mothers of young children in Lagos, Nigeria. Nigerian Journal of Paediatrics. 2014;41(1):43-7.

71. Arabi M, Frongillo EA, Avula R, Mangasaryan N. Infant and young child feeding in developing countries. Child Development. 2012;83(1):32-45.

72. Oche MO, Umar AS. Breastfeeding practices of mothers in a rural community of Sokoto, Nigeria. Nigeria Postgraduate Medical Journal. 2008;15(2):101-4.

73. Engebretsen IM, Wamani H, Karamagi C, Semiyaga N, Tumwine J, Tylleskar T. Low adherence to exclusive breastfeeding in Eastern Uganda: a community-based cross-sectional study comparing dietary recall since birth with 24-hour recall. Pediatrics. 2007;7:10.

74. Agho KE, Dibley MJ, Odiase JI, Ogbonmwan SM. Determinants of exclusive breastfeeding in Nigeria. Pregnancy & Childbirth. 2011;11:2.

75. Buskens I, Jaffe A, Mkhatshwa H. Infant feeding practices: Realities and mind sets of mothers in southern Africa. AIDS Care. 2007;19(9):1101-9.

76. Khanal V, Adhikari M, Sauer K, Zhao Y. Factors associated with the introduction of prelacteal feeds in Nepal: findings from the Nepal Demographic and Health Survey 2011. International Breastfeeding Journal. 2013;8:9-.

77. Roy MP, Mohan U, Singh SK, Singh VK, Srivastava AK. Determinants of Prelacteal Feeding in Rural Northern India. International Journal of Preventive Medicine. 2014;5(5):658-63.

78. Sibeko L, Dhansay MA, Charlton KE, Johns T, Gray-Donald K. Beliefs, attitudes, and practices of breastfeeding mothers from a periurban community in South Africa. Journal of Human Lactation. 2005;21(1):31-8.

79. AIHW (Australian Institute of Health and Welfare). 2010 Australian National Feeding Survey: indicator results. Canberra: AIHW; 2011.

80. Thomson G, Ebisch-Burton K, Flacking R. Shame if you do--shame if you don't: women's experiences of infant feeding. Maternal & Child Nutrition. 2015;11(1):33-46.

81. Dennis C-L. Breastfeeding Initiation and Duration: A 1990-2000 Literature Review. Journal of Obstetric, Gynecologic, & Neonatal Nursing. 2002;31(1):12-32.

82. Meedya S, Fahy K, Kable A. Factors that positively influence breastfeeding duration to 6 months: A literature review. Women and Birth. 2010;23(4):135-45.

83. Health Canada. Duration of Exclusive Breastfeeding in Canada: Key Statistics and Graphics (2009 - 2010) 2012 [updated 27th June 2012; cited 2016 4th May]. Available from: <http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/prenatal/exclusive-exclusif-eng.php>.

84. Centre for Disease Control and Prevention. Breastfeeding Report Card: United States 2014. Atlanta: National Centre for Chronic Disease Prevention and Health Promotion, Nutrition PAaO; 2014.

85. Scott JA, Kwok YY, Synnott K, Bogue J, Amarri S, Norin E, et al. A comparison of maternal attitudes to breastfeeding in public and the association with breastfeeding duration in four European countries: results of a cohort study. Birth. 2015;42(1):78-85.

86. Callen J, Pinelli J. Incidence and Duration of Breastfeeding for Term Infants in Canada, United States, Europe, and Australia: A Literature Review. Birth. 2004;31(4):285-92.

87. Shealy KR, Scanlon KS, Labiner-Wolfe J, Fein SB, Grummer-Strawn LM. Characteristics of Breastfeeding Practices Among US Mothers. Pediatrics. 2008;122(Supplement 2):S50-S5.

88. Bentley ME, Dee DL, Jensen JL. Breastfeeding among low income, African-American women: power, beliefs and decision making. The Journal of Nutrition. 2003;133(1):305s-9s.

89. Giovannini M, Riva E, Banderali G, Scaglioni S, Veehof SHE, Sala M, et al. Feeding practices of infants through the first year of life in Italy. Acta Pædiatrica. 2004;93(4):492-7.

90. Dyson L, Renfrew MJ, McFadden A, McCormick F, Herbert G, Thomas J. Promotion of breastfeeding initiation and duration: Evidence into practice briefing: NICE; 2006 [cited 2016 29 March]. Available from: <http://www.breastfeedingmanifesto.org.uk/doc/publication/EAB_Breastfeeding_final_version_1162237588.pdf>.

91. Cattaneo A, Burmaz T, Arendt M, Nilsson I, Mikiel-Kostyra K, Kondrate I, et al. Protection, promotion and support of breast-feeding in Europe: progress from 2002 to 2007. Public Health Nutrition. 2009;13(6):751-9.

92. Armstrong J, Reilly JJ. Breastfeeding and lowering the risk of childhood obesity. Lancet (London, England). 2002;359(9322):2003-4.

93. Dennis CLE. Identifying predictors of breastfeeding self-efficacy in the immediate postpartum period. Research in Nursing & Health. 2006;29(4):256-68.

94. Gallegos D, Vicca N, Streiner S. Breastfeeding beliefs and practices of African women living in Brisbane and Perth, Australia. Maternal & Child Nutrition. 2015;11(4):727-36.

95. Howie PW, Forsyth JS, Ogston SA, Clark A, Florey CD. Protective effect of breast feeding against infection. BMJ. 1990;300(6716):11-6.

96. Baghurst P, Pincombe J, Peat B, Henderson A, Reddin E, Antoniou G. Breast feeding self-efficacy and other determinants of the duration of breast feeding in a cohort of first-time mothers in Adelaide, Australia. Midwifery. 2007;23(4):382-91.

97. Bhopal RS. Ethnicity, race, and health in multicultural societies : foundations for better epidemiology, public health and health care. Oxford; New York: Oxford University Press; 2007.

98. Piwoz EG, Huffman SL. The Impact of Marketing of Breast-Milk Substitutes on WHO-Recommended Breastfeeding Practices. Food and Nutrition Bulletin. 2015;36(4):373-86.

99. Mason F, Greer H. Don't push it: why the formula milk industry must clean up its act. London; 2018.

100. Blyth R, Creedy DK, Dennis CL, Moyle W, Pratt J, De Vries SM. Effect of maternal confidence on breastfeeding duration: An application of breastfeeding self-efficacy theory. Birth-Issue Perinatal Care. 2002;29(4):278-84.

101. Wutke K, Dennis CL. The reliability and validity of the Polish version of the Breastfeeding Self-Efficacy Scale-Short Form: Translation and psychometric assessment. International Journal of Nursing Studies. 2007;44(8):1439-46.

102. Molina Torres M, Davila Torres RR, Parrilla Rodriguez AM, Dennis CL. Translation and validation of the breastfeeding self-efficacy scale into Spanish: data from a Puerto Rican population. Journal of human lactation. 2003;19(1):35-42.

103. Kannan S, Carruth BR, Skinner J. Cultural influences on infant feeding beliefs of mothers. Journal of the American Dietetic Association. 1999;99(1):88-90.

104. McFadden A, Atkin K, Renfrew MJ. The impact of transnational migration on intergenerational transmission of knowledge and practice related to breast feeding. Midwifery. 2014;30(4):439-46 8p.

105. Clayton HB, Li R, Perrine CG, Scanlon KS. Prevalence and reasons for introducing infants early to solid foods: variations by milk feeding type. Pediatrics. 2013;131(4):e1108-14.

106. Hurley KM, Black MM, Papas MA, Quigg AM. Variation in breastfeeding behaviours, perceptions, and experiences by race/ethnicity among a low-income statewide sample of Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) participants in the United States. Maternal & Child Nutrition. 2008;4(2):95-105.

107. Newby RM, Davies PS. A prospective study of the introduction of complementary foods in contemporary Australian infants: What, when and why? Journal of Paediatrics & Child Health. 2015;51(2):186-91.

108. Ware JL, Webb L, Levy M. Barriers to breastfeeding in the African American population of Shelby County, Tennessee. Breastfeeding Medicine. 2014;9(8):385-92.

109. Earle S. Why some women do not breast feed: bottle feeding and fathers' role. Midwifery. 2000;16(4):323-30.

110. Agboado G, Michel E, Jackson E, Verma A. Factors associated with breastfeeding cessation in nursing mothers in a peer support programme in Eastern Lancashire. BMC Pediatrics. 2010;10:3.

111. Baker D, Garrow A, Shiels C. Inequalities in immunisation and breast feeding in an ethnically diverse urban area: cross-sectional study in Manchester, UK. Journal of Epidemiology and Community Health. 2010.

112. Turcksin R, Bel S, Galjaard S, Devlieger R. Maternal obesity and breastfeeding intention, initiation, intensity and duration: a systematic review. Maternal & Child Nutrition. 2014;10(2):166-83.

113. Griffiths LJ, Tate AR, Dezateux C. Do early infant feeding practices vary by maternal ethnic group? Public Health Nutrition. 2007;10(9):957-64.

114. Oakley LL, Renfrew MJ, Kurinczuk JJ, Quigley MA. Factors associated with breastfeeding in England: an analysis by primary care trust. BMJ Open. 2013;3(6):e002765.

115. Goebel N. Breastfeeding rates too low in developed countries, UNICEF says.2018 2018 10 May [cited 2019 27 May]. Available from: <https://www.dw.com/en/breastfeeding-rates-too-low-in-developed-countries-unicef-says/a-43727348>.

116. Nguyen ND, Allen JR, Peat JK, Schofield WN, Nossar V, Eisenbruch M, et al. Growth and feeding practices of Vietnamese infants in Australia. European Journal of Clinical Nutrition. 2004;58(2):356-62.

117. Rossiter JC. Attitudes of Vietnamese women to baby feeding practices before and after immigration to Sydney, Australia. Midwifery. 1992;8(3):103-12.

118. Dancel LD, Perrin E, Yin SH, Sanders L, Delamater A, Perreira KM, et al. The relationship between acculturation and infant feeding styles in a Latino population. Obesity. 2015;23(4):840-6.

119. Gibson-Davis CM, Brooks-Gunn J. Couples' immigration status and ethnicity as determinants of breastfeeding. American Journal of Public Health. 2006;96(4):641-6.

120. Harley K, Stamm NL, Eskenazi B. The effect of time in the U.S. on the uration of breastfeeding in women of Mexican descent. Maternal & Child Health. 2007;11(2):119-25.

121. Hawkins SS, Lamb K, Cole TJ, Law C. Influence of moving to the UK on maternal health behaviours: Prospective cohort study. BMJ. 2008;336(7652):1052-5.

122. Textor L, Tiedje K, Yawn B. Mexican and Somali immigrant breastfeeding initiation and counseling: a qualitative study of practices. Minnesota Medicine. 2013;96(12):46-50.

123. Tyler L, Kirby R, Rogers C. Infant feeding practices among Sudanese women now living in regional south east Queensland, Australia. Breastfeeding Review. 2014;22(3):13-9.

124. Bhugra D. Migration and mental health. Acta psychiatrica Scandinavica. 2004;109(4):243-58.

125. Carta MG, Bernal M, Hardoy MC, Haro-Abad JM. Migration and mental health in Europe (the state of the mental health in Europe working group: appendix 1). Clinical Practice and Epidemiology in Mental Health. 2005;1:13-.

126. Thomas SL, Thomas SD. Displacement and health. British Medical Bulletin. 2004;69:115-27.

127. Messias DK, Rubio M. Immigration and health. Annual Review of Nursing Research. 2004;22:101-34.

128. Lassetter JH, Callister LC. The impact of migration on the health of voluntary migrants in western societies. Journal of Transcultural Nursing. 2009;20(1):93-104.

129. Frisbie WP, Cho Y, Hummer RA. Immigration and the health of Asian and Pacific Islander adults in the United States. American Journal of Epidemiology. 2001;153(4):372-80.

130. Singh GK, Miller BA. Health, life expectancy, and mortality patterns among immigrant populations in the United States. Canadian journal of public health. 2004;95(3):I14-21.

131. Uitenbroek DG, Verhoeff AP. Life expectancy and mortality differences between migrant groups living in Amsterdam, the Netherlands. Social Science & Medicine. 2002;54(9):1379-88.

132. Merten S, Wyss C, Ackermann-Liebrich U. Caesarean sections and breastfeeding initiation among migrants in Switzerland. International Journal of Public Health. 2007;52(4):210-22.

133. de Amici D, Gasparoni A, Guala A, Klersy C. Does ethnicity predict lactation? A study of four ethnic communities. European Journal of Epidemiology. 2001;17(4):357-62.

134. Franzini L, Fernandez-Esquer ME. Socioeconomic, cultural, and personal influences on health outcomes in low income Mexican-origin individuals in Texas. Social Science & Medicine (1982). 2004;59(8):1629-46.

135. Wingate MS, Alexander GR. The healthy migrant theory: variations in pregnancy outcomes among US-born migrants. Social science & medicine (1982). 2006;62(2):491-8.

136. Landrine H, Klonoff EA. Culture change and ethnic-minority health behavior: an operant theory of acculturation. Journal of Behavioral Medicine. 2004;27(6):527-55.

137. Rassin DK, Markides KS, Baranowski T, Bee DE, Richardson CJ, Mikrut WD, et al. Acculturation and breastfeeding on the United States-Mexico border. The American Journal of the Medical Sciences. 1993;306(1):28-34.

138. Yu SM, Huang ZJ, Singh GK. Health status and health services utilization among US Chinese, Asian Indian, Filipino, and other Asian/Pacific Islander Children. Pediatrics. 2004;113(1 Pt 1):101-7.

139. Choudhry UK. Traditional practices of women from India: pregnancy, childbirth, and newborn care. Journal of Obstetric, Gynecologic, and Neonatal Nursing. 1997;26(5):533-9.

140. Bonuck KA, Freeman K, Trombley M. Country of origin and race/ethnicity: impact on breastfeeding intentions. Journal of Human Lactation. 2005;21(3):320-6.

141. HM Treasury. Gross domestic product (GDP): what it means and why it matters.: HM Treasury; 2017 [updated 26 July 2017; cited 2019 20 July]. Available from: <https://www.gov.uk/government/news/gross-domestic-product-gdp-what-it-means-and-why-it-matters>.

142. Scrimshaw SC, Engle PL, Arnold L, Haynes K. Factors affecting breastfeeding among women of Mexican origin or descent in Los Angeles. American Journal of Public Health. 1987;77(4):467-70.

143. Gibson MV, Diaz VA, Mainous AG, 3rd, Geesey ME. Prevalence of breastfeeding and acculturation in Hispanics: results from NHANES 1999-2000 study. Birth. 2005;32(2):93-8.

144. Riordan J, Gill-Hopple K. Breastfeeding Care in Multicultural Populations. Journal of Obstetric, Gynecologic & Neonatal Nursing. 2001;30(2):216-23.

145. Bowes A, Domokos TS. Negotiating breastfeeding: Pakistani and White women, and their experiences in hospital and at home. Sociological Research Online [Internet]. 1998 [cited 2016 02 April]; 3(3). Available from: <http://www.socresonline.org.uk/3/3/5.html>.

146. Persad MD, Mensinger JL. Maternal breastfeeding attitudes: association with breastfeeding intent and socio-demographics among urban primiparas. Journal of Community Health. 2008;33(2):53-60.

147. Goel KM, House F, Shanks RA. Infant-feeding practices among immigrants in Glasgow. BMJ. 1978;2(6146):1181-3.

148. Chan M, Pillay N, Swing WL. International migration, health and human rights Geneva: International Organisation for Migration; 2013 [2 April 2016]. Available from: <http://www.ohchr.org/Documents/Issues/Migration/WHO_IOM_UNOHCHRPublication.pdf>.

149. Office of National Statistics. Migration Statistics Quarterly Report: November 2015 2015 [updated 26 November 2015; cited 2016 4 April]. Available from: <http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/migrationstatisticsquarterlyreport/november2015>.

150. Office of National Statistics. Migration Statistics Quarterly Report: May 2019 2019 [updated 24 May 2019; cited 2019 28 May]. Available from: <http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/migrationstatisticsquarterlyreport/february2016#net-migration-to-the-uk>.

151. Krausova A, Vargas-Silva C. Briefing North East: Census Profile 2013 [cited 2016 4 May 2016]. Available from: <http://www.migrationobservatory.ox.ac.uk/sites/files/migobs/North%20East%20census%20profile.pdf>.

152. Andrew S, Halcomb EJ. Mixed Methods Research for Nursing and the Health Sciences. Hoboken, United Kingdom: John Wiley & Sons; 2009.

153. University of London, Institute of Education, Centre for Longitudinal Studies. Millenium Cohort Study: First Survey, 2001-2003. [data collection]. UK Data Service; 2017 [cited 2019 3rd April]. 12th Edition:[Available from: <http://doi.org/10.5255/UKDA-SN-4683-4>.

154. University of Bristol, Department of Social Medicine, Avon Longitudinal Study of Parents and Children. Avon Longitudinal Study of Parents and Children, 1990-2003: Social Science Sampler Datasets. [data collection]. UK Data Service; 2009 [cited 2019 3rd April]. Available from: <http://doi.org/10.5255/UKDA-SN-6147-1>.

155. Labaree RV. Organizing your social science research paper: types of research design. Los Angeles, CA: Universiy of Southern California; 2013.

156. Brikci N, Green J. A guide to using qualitative research methodology UK: Medecins San Frontieres; 2007 [cited 2016 March 30]. Available from: <https://evaluation.msf.org/sites/evaluation/files/a_guide_to_using_qualitative_research_methodology.pdf>.

157. Bryman A. Social research methods. 4th ed ed. Oxford: Oxford University Press; 2012.

158. Collins H. Creative Research: The Theory and Practice of Research for the Creative Industries: Bloomsbury Publishing; 2017.

159. Madill A, Jordan A, Shirley C. Objectivity and reliability in qualitative analysis: realist, contextualist and radical constructionist epistemologies. The British Psychological Society. 2000;91:1-20.

160. Pidgeon N, Henwood K. Using grounded theory in psychological research. Doing qualitative analysis in psychology. Hove, England: Taylor & Francis; 1997. p. 245-73.

161. Tindall C. Issues of evaluation. In: Banister P, Burman E, Parker I, Taylor M, Tindall C, editors. Qualitative methods in psychology: a research guide. Berkshire: Open University Press; 1994. p. 142-59.

162. Morse JM, editor. Qualitative health research. Newbury Park, CA: Sage; 1992.

163. Population UK. England population 2019. 2019 [cited 2019 27 May]. Available from: <https://www.ukpopulation.org/england-population/>.

164. Office of National Statistics. England [cited 2019 21 May]. Available from: <https://www.ons.gov.uk/methodology/geography/ukgeographies/administrativegeography/england>.

165. Daniel J. Choosing the type of nonprobability sampling. 2012 2020/06/14. In: Sampling Essentials: Practical Guidelines for Making Sampling Choices [Internet]. Thousand Oaks, California: SAGE Publications, Inc.; [81-124]. Available from: <https://methods.sagepub.com/book/sampling-essentials>.

166. Fusch P, Ness L. Are We There Yet? Data Saturation in Qualitative Research. 2015;20(9):1408-16.

167. Grady MP. Qualitative and action research : a practitioner handbook. Bloomington, Ind.: Phi Delta Kappa Educational Foundation; 1998.

168. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006;3(2):77-101.

169. White K. An Introduction to the Sociology of Health and Illness: SAGE Publications; 2002.

170. Giddens A, Sutton PW. Sociology: Polity Press; 2017.

171. Holman D, Borgstrom E. Applying social theory to understand health-related behaviours. Medical Humanities. 2016;42(2):143-5.

172. Marteau T, Dieppe P, Foy R, Kinmonth A-L, Schneiderman N. Behavioural medicine: changing our behaviour. BMJ. 2006;332(7539):437-8.

173. National Cancer Institute. Making health communication programs work. Bethesda, Md: US Department of Health and Human Services, Public Health Service, National Institute of Health; 2002.

174. Warin M, Turner K, Moore V, Davies M. Bodies, mothers and identities: rethinking obesity and the BMI. Sociology of Health & Illness. 2008;30(1):97-111.

175. Groleau D, Rodriguez C. Breastfeeding and poverty: negotiating cultural change and symbolic capital of motherhood in Quebec, Canada. In: Dykes F, Hall Moran V, editors. Infant and young child feeding: challenges to implementing a global strategy. Oxford: Blackwell Publishing; 2009. p. 19.

176. Ferzacca S. Lived Food and Judgments of Taste at A Time of Disease. Medical Anthropology. 2004;23(1):41-67.

177. Amir LH. Social theory and infant feeding. International Breastfeeding Journal. 2011;6(1):7.

178. Jenkins R. Pierre Bourdieu: Routledge; 2002.

179. Power EM. An Introduction to Pierre Bourdieu's Key Theoretical Concepts. Journal for the Study of Food and Society. 1999;3(1):48-52.

180. Thompson JB. Editor's introduction. In: Bourdieu P, editor. Language and symbolic power. Cambridge: Harvard University Press; 1991.

181. Bourdieu P. The Forms of Capital. In: Richardson J, editor. Handbook of Theory and Research for the Sociology of Education. New York: Greenwood Press; 1986. p. 241-58.

182. Williams SJ. Theorising class, health and lifestyles: can Bourdieu help us? Sociology of Health & Illness. 1995;17(5):577-604.

183. Griffiths P, Gossop M, Powis B, Strang J. Reaching hidden populations of drug users by privileged access interviewers: methodological and practical issues. Addiction. 1993;88(12):1617-26.

184. Haraway D. Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. Feminist Studies. 1988;14(3):575-99.

185. van Meter KM. Methodological and design issues: techniques for assessing the representatives of snowball samples. NIDA research monograph. 1990;98:31-43.

186. Oakley A. Interviewing women: A contradiction in terms. In: Roberts H, editor. Doing Feminist Research. London: Routledge and Kegan Paul; 1981. p. 30-61.

187. United Nations Economic Commission for Africa. Member States 2018 [cited 2019 13 February]. Available from: <https://www.uneca.org/pages/member-states>.

188. Davie P, Bick D, Chilcot J. Measuring milk: A call for change in quantifying breastfeeding behaviour. Midwifery. 2018;63:A6-A7.

189. Groleau D, Souliere M, Kirmayer LJ. Breastfeeding and the cultural configuration of social space among Vietnamese immigrant woman. Health & Place. 2006;12(4):516-26.

190. Golin R, Marzari F, Zanardo V. Incidence and correlates of breast-feeding practices in the non-European Community migrant women. Nutrition Research. 2003;23(8):983-90.

191. Celi AC, Rich-Edwards JW, Richardson MK, Kleinman KP, Gillman MW. Immigration, race/ethnicity, and social and economic factors as predictors of breastfeeding initiation. Archives of Pediatrics & Adolescent Medicine. 2005;159(3):255-60.

192. Gorman JR, Madlensky L, Jackson DJ, Ganiats TG, Boies E. Early postpartum breastfeeding and acculturation among Hispanic women. Birth. 2007;34(4):308-15.

193. Sussner KM, Lindsay AC, Peterson KE. The influence of acculturation on breast-feeding initiation and duration in low-income women in the US. Journal of Biosocial Science. 2008;40(5):673-96.

194. Singh GK, Kogan MD, Dee DL. Nativity/immigrant status, race/ethnicity, and socioeconomic determinants of breastfeeding initiation and duration in the United States, 2003. Pediatrics. 2007;119 Suppl 1:S38-46.

195. Giles M, Connor S, McClenahan C, Mallett J, Stewart-Knox B, Wright M. Measuring young people’s attitudes to breastfeeding using the Theory of Planned Behaviour. Journal of Public Health. 2007;29(1):17-26.

196. Morse JM, Jehle C, Gamble D. Initiating breastfeeding: a world survey of the timing of postpartum breastfeeding. International Journal of Nursing Studies. 1990;27(3):303-13.

197. Pickett E. A closer look at cultural issues surrounding breastfeeding: Lactation matters; 2012 [updated 30 October 2012; cited 2019 29 July]. Available from: <https://lactationmatters.org/2012/10/30/a-closer-look-at-cultural-issues-surrounding-breastfeeding/>.

198. Bupa Global. Breastfeeding: is breastfeeding the same around the world? 2019 [cited 2019 29 July]. Available from: <https://www.bupaglobal.com/en/your-wellbeing/family-life/breastfeeding-around-the-world>.

199. Moher D, Liberati A, Tetzlaff J, Altman DG, The PG. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLOS Medicine. 2009;6(7):e1000097.

200. World Health Organisation, UNAIDS, UNFPA, UNICEF. Guidelines on HIV and Infant Feeding 2010: principles and recommendations for infant feeding in the context of HIV and a summary of evidence: World Heath Organisation; 2010 [Available from: <https://www.unicef.org/aids/files/hiv_WHO_guideline_on_HIV_and_IF.pdf>.

201. Cooke A, Smith D, Booth A. Beyond PICO: the SPIDER tool for qualitative evidence synthesis. Qualitative Health Research. 2012. 1435-43 p.

202. Methley AM, Campbell S, Chew-Graham C, McNally R, Cheraghi-Sohi S. PICO, PICOS and SPIDER: a comparison study of specificity and sensitivity in three search tools for qualitative systematic reviews. BMC Health Services Research. 2014;14(1):579.

203. Khan K, ter Riet G, Popay J, al. e. Stage II: conducting the review, phase 5: study quality assessment. In: Khan KR, G.; Glanville, J.; et al., editor. Undertaking Systematic Reviews of Research Effectiveness: CRD's Guidance for Those Carrying Out or Commissioning Reviews 2nd ed. York, United Kingdom: NHS Centre for Reviews and Dissemination, University of York; 2001. p. 1-20. CRD Report 4.

204. The Joanna Briggs Institute. The Joanna Briggs Institute Reviewers' Manual: 2014 edition/Supplement. Australia: The Joanna Briggs Institute; 2014.

205. Barnett-Page E, Thomas J. Methods for the synthesis of qualitative research: a critical review. BMC Medical Research Methodology. 2009;9(1):59.

206. Steinman L, Doescher M, Keppel GA, Pak-Gorstein S, Graham E, Haq A, et al. Understanding infant feeding beliefs, practices and preferred nutrition education and health provider approaches: an exploratory study with Somali mothers in the USA. Maternal & Child Nutrition. 2010;6(1):67-88.

207. Wandel M, Terragni L, Nguyen C, Lyngstad J, Amundsen M, de Paoli M. Breastfeeding among Somali mothers living in Norway: Attitudes, practices and challenges. Women & Birth. 2016;29(6):487-93.

208. Hill N, Hunt E, Hyrkäs K. Somali Immigrant Women’s Health Care Experiences and Beliefs Regarding Pregnancy and Birth in the United States. Journal of Transcultural Nursing. 2012;23(1):72-81.

209. Kolanen H, Valimaki T, Vehvilainen-Julkunen K. Breastfeeding among Somali mothers living in Finland under Salutogenic Approach. International Journal of Caring Sciences. 2016;9(2):384.

210. Castaldo M, Mirisola C, Costanzo G, Marrone R. Multidisciplinary study on immigrants african and asian children's health: Socio-cultural factors influencing breastfeeding. Current Women's Health Review. 2017;13(1):58-65.

211. Fabiyi C, Peacock N, Hebert-Beirne J, Handler A. A Qualitative Study to Understand Nativity Differences in Breastfeeding Behaviors Among Middle-Class African American and African-Born Women. Maternal & Child Health. 2016;20(10):2100-11.

212. de Hoog ML, van Eijsden M, Stronks K, Gemke RJ, Vrijkotte TG. The role of infant feeding practices in the explanation for ethnic differences in infant growth: the Amsterdam Born Children and their Development study. British Journal of Nutrition. 2011;106(10):1592-601.

213. Busck-Rasmussen M, Villadsen S, Norsker F, Mortensen L, Andersen A-M. Breastfeeding Practices in Relation to Country of Origin Among Women Living in Denmark: A Population-Based Study. Maternal & Child Health. 2014;18(10):2479-88.

214. Brick A, Nolan A. Maternal Country of Birth Differences in Breastfeeding at Hospital Discharge in Ireland. Economic and Social Review. 2014;45(4):455-84.

215. Moore AP, Nanthagopan K, Hammond G, Milligan P, Goff LM. Influence of weaning timing advice and associated weaning behaviours in a survey of black and minority ethnic groups in the UK. Public Health Nutrition. 2013;17(9):2094-103.

216. Grewal NK, Andersen LF, Sellen D, Mosdol A, Torheim LE. Breast-feeding and complementary feeding practices in the first 6 months of life among Norwegian-Somali and Norwegian-Iraqi infants: the InnBaKost survey. Public Health Nutrition. 2016;19(4):703-15.

217. Bulk-Bunschoten AMW, Pasker-de Jong PCM, van Wouwe JP, de Groot CJ. Ethnic variation in infant-feeding practices in the Netherlands and Weight Gain at 4 months. Journal of Human Lactation. 2008;24(1):42-9.

218. Kelly YJ, Watt RG, Nazroo JY. Racial/ethnic differences in breastfeeding initiation and continuation in the United kingdom and comparison with findings in the United States. Pediatrics. 2006;118(5):e1428-35.

219. Rio I, Castello-Pastor A, Del Val Sandin-Vazquez M, Barona C, Jane M, Mas R, et al. Breastfeeding initiation in immigrant and non-immigrant women in Spain. European Journal of Clinical Nutrition. 2011;65(12):1345-7.

220. Meftuh AB, Tapsoba LP, Lamounier JA. Breastfeeding practices in Ethiopian women in southern California. Indian Journal of Pediatrics. 1991;58(3):349-56.

221. Dennis CL, Gagnon A, Van Hulst A, Dougherty G. Predictors of breastfeeding exclusivity among migrant and Canadian-born women: results from a multi-centre study. Maternal & Child Nutrition. 2014;10(4):527-44.

222. Farchi S, Asole S, Chapin EM, Di Lallo D. Breastfeeding initiation rates among immigrant women in central Italy between 2006 and 2011. Journal of Maternal-Fetal & Neonatal Medicine. 2016;29(2):344-8.

223. Merewood A, Patel B, Newton KN, MacAuley LP, Chamberlain LB, Francisco P, et al. Breastfeeding duration rates and factors affecting continued breastfeeding among infants born at an inner-city US Baby-Friendly hospital. Journal of Human Lactation. 2007;23(2):157-64.

224. Fawzi WW, Forman MR, Levy A, Graubard BI, Naggan L, Berendes HW. Maternal anthropometry and infant feeding practices in Israel in relation to growth in infancy: The North African Infant Feeding Study. American Journal of Clinical Nutrition. 1997;65(6):1731-7.

225. Griffiths LJ, Tate AR, Dezateux C. The contribution of parental and community ethnicity to breastfeeding practices: evidence from the Millennium Cohort Study. International Journal of Epidemiology. 2005;34(6):1378-86.

226. Jones RA, Belsey EM. Breast feeding in an inner London borough--a study of cultural factors. Social Science & Medicine. 1977;11(3):175-9.

227. Neault NB, Frank DA, Merewood A, Philipp B, Levenson S, Cook JT, et al. Breastfeeding and health outcomes among citizen infants of immigrant mothers. Journal of the American Dietetic Association. 2007;107(12):2077-86.

228. Nolan A, Layte R. The 'healthy immigrant effect': breastfeeding behaviour in Ireland. European Journal of Public Health. 2015;25(4):626-31.

229. Parker MGK, Colson ER, Provini L, Rybin DV, Kerr SM, Heeren T, et al. Variation in Safe Sleep and Breastfeeding Practices Among Non-Hispanic Black Mothers in the United States According to Birth Country. Academic Pediatrics. 2017.

230. Rubin L, Inbar SN, Rishpon S. Breastfeeding Patterns Among Ethiopian Immigrant Mothers, Israel, 2005-2006. Israel Medical Association Journal. 2010;12(11):657-61.

231. Treuherz J, Cullinan TR, Saunders DI. Determinants of infant-feeding practice in East London. Human Nutrion Applied Nutrition. 1982;36A(4):281-6.

232. Wallby T, Hjern A. Region of birth, income and breastfeeding in a Swedish county. Acta Paediatrica. 2009;98(11):1799-804.

233. Lindsay A, Le Q, Greaney M. Infant Feeding Beliefs, Attitudes, Knowledge and Practices of Chinese Immigrant Mothers: An Integrative Review of the Literature. International Journal of Environmental Research and Public Health. 2017;15:21.

234. Reay D. 'It's All Becoming a Habitus': Beyond the Habitual Use of Habitus in Educational Research. British Journal of Sociology of Education. 2004;25(4):431-44.

235. Ngarachu AW. Applying Pierre Bourdieu's concepts of habitus and field to the study of ethnicity in Kenya. Journal of Language, Technology & Entrepreneurship in Africa. 2014;5(1):57-69.

236. Rapoport T, Lomsky-Feder E. 'Intelligentsia' as an Ethnic Habitus: The inculcation and restructuring of intelligentsia among Russian Jews. British Journal of Sociology of Education. 2002;23(2):233-48.

237. Di Maggio P. Review essay on Pierre Bourdieu. American Journal of Sociology. 1979;84:1460- 74.

238. Bourdieu P. Sociology in question. Cambridge: Polity Press; 1990.

239. Asare BY-A, Preko JV, Baafi D, Dwumfour-Asare B. Breastfeeding practices and determinants of exclusive breastfeeding in a cross-sectional study at a child welfare clinic in Tema Manhean, Ghana. International Breastfeeding Journal. 2018;13(1):12.

240. Tawiah-Agyemang C, Kirkwood BR, Edmond K, Bazzano A, Hill Z. Early initiation of breast-feeding in Ghana: barriers and facilitators. Journal Of Perinatology. 2008;28:S46.

241. Corbett KS. Explaining infant feeding style of low-income black women. Journal of Pediatric Nursing. 2000;15(2):73-81.

242. Ryan A, Zhou W, Acosta A. Breastfeeding Continues to Increase Into the New Millennium. Pediatrics. 2003;110:1103-9.

243. Dennis CL, Shiri R, Brown HK, Santos HP, Jr., Schmied V, Falah-Hassani K. Breastfeeding rates in immigrant and non-immigrant women: A systematic review and meta-analysis. Maternal & Child Nutrition. 2019;15(3):e12809.

244. Issaka AI, Agho KE, Renzaho AMN. Prevalence of key breastfeeding indicators in 29 sub-Saharan African countries: a meta-analysis of demographic and health surveys (2010–2015). BMJ Open. 2017;7(10):e014145.

245. Zhou Q, Younger KM, Cassidy TM, Wang W, Kearney JM. Breastfeeding practices 2008–2009 among Chinese mothers living in Ireland: a mixed methods study. Pregnancy and Childbirth. 2020;20(1):51.

246. Harley K, Stamm NL, Eskenazi B. The effect of time in the U.S. on the duration of breastfeeding in women of Mexican descent. Maternal & Child Health Journal. 2007;11(2):119-25.

247. Bigman G, Wilkinson AV, Pérez A, Homedes N. Acculturation and Breastfeeding Among Hispanic American Women: A Systematic Review. Maternal & Child Health. 2018;22(9):1260-77.

248. Hawkins SS, Lamb K, Cole TJ, Law C, Millennium Cohort Study Child H. Influence of moving to the UK on maternal health behaviours: prospective cohort study. BMJ. 2008;336(7652):1052-+.

249. Fallon VM, Harrold JA, Chisholm A. The impact of the UK Baby Friendly Initiative on maternal and infant health outcomes: A mixed-methods systematic review. Maternal & Child Nutrition. 2019;15(3):e12778.

250. UNICEF. UNICEF says exclusive breastfeeding of Somali children could save thousands of lives every year. In: Relief Web, editor. July 31 ed. Somalia: UNICEF; 2009.

251. Sheehan A, Gribble K, Schmied V. It’s okay to breastfeed in public but…. International Breastfeeding Journal. 2019;14(1):24.

252. Condon L, Ingram J, Hamid N, Hussein A. Cultural influences on breastfeeding and weaning: The Journal of the Health Visitors' Association. Community Practitioner. 2003;76(9):344-9.

253. Rayment J, McCourt C, Vaughan L, Christie J, Trenchard-Mabere E. Bangladeshi women's experiences of infant feeding in the London Borough of Tower Hamlets. Maternal & Child Nutrition. 2016;12(3):484-99.

254. Joseph J, Brodribb W, Liamputtong P. “Fitting-in Australia” as nurturers: Meta-synthesis on infant feeding experiences among immigrant women. Women and Birth. 2019;32(6):533-42.

255. Fair F, Raben L, Watson H, Vivilaki V, van den Muijsenbergh M, Soltani H. Migrant women's experiences of pregnancy, childbirth and maternity care in European countries: A systematic review. PLoS One. 2020;15(2):e0228378.

256. Joseph J, Liamputtong P, Brodribb W. Postpartum breastfeeding experiences in the traditional-biomedical crossroads: A qualitative study using drawing with Vietnamese and Myanmarese refugee women in Australia. Journal of Advanced Nursing. 2019;75(11):2855-66.

257. da Conceição F. Santiago M, Figueiredo MH. Immigrant Women’s Perspective on Prenatal and Postpartum Care: Systematic Review. Journal of Immigrant and Minority Health. 2015;17(1):276-84.

258. Cervera P, Ngo J. Dietary guidelines for the breast-feeding woman. Public Health Nutrition. 2001;4(6a):1357-62.

259. Amir L. Breastfeeding: managing 'supply' difficulties. Australian Family Physician. 2006;35:686-9.

260. Scott JA, Landers MC, Hughes RM, Binns CW. Factors associated with breastfeeding at discharge and duration of breastfeeding. Journal of Paediatrics and Child Health. 2001;37(3):254-61.

261. Fatherhood Institute. Fatherhood Institute Research Summary: Fathers and Breastfeeding 2007 [updated 20 March 200729 July 2019]. Available from: <http://www.fatherhoodinstitute.org/2007/fatherhood-institute-research-summary-fathers-and-breastfeeding/>.

262. Earle S, Hadley R. Men's views and experiences of infant feeding: A qualitative systematic review. Maternal & Child Nutrition. 2018;14(3):e12586.

263. Mills AJ, Durepos G, Wiebe E. Encyclopedia of Case Study Research. Thousand Oaks, California: SAGE Publications; 2010.

1. Low-income countries (LICs) are countries with less than or equal to $995 Gross National Income (GNI) per capita in 2017 and middle-income countries are countries with GNI of $996 and $12,055 per capita in 2017. Middle-income countries are classified as lower (between $996 and $3,895) or upper (between $3,896 and $12,055) [6]. These countries are also referred to as developing countries. [↑](#footnote-ref-2)
2. A high-income country (also known as developed country) according to the World Bank is used to describe countries which had GNI per capita of more than $12,736 per capita in 2014. [↑](#footnote-ref-3)
3. Ethnicity is used to describe the social group that a person is identified with, resulting from a mix of factors including culture, language, shared history, diet, geographical origin, religion, ancestry and physical features traditionally associated with race (17) [↑](#footnote-ref-4)
4. Acculturation is defined as the process by, and extent to which, people from one culture adapt to the attitudes, values, behaviours, thoughts and perceptions of the norm of a new culture [73, 74] [↑](#footnote-ref-5)
5. Gross Domestic Product (GDP) is a measure of the size of a country’s economy, obtained by measuring the total value of all goods produced and all services offered within a specific period of time [141]. [↑](#footnote-ref-6)
6. A charity organisation providing Black, Asian and Minority ethnic groups (BAME) with training, personal development, counselling, and legal advice on matters relating to immigration and domestic violence [↑](#footnote-ref-7)
7. Mothers born in Africa and migrated to the UK. [↑](#footnote-ref-8)
8. Mothers born in the UK but having one or both parents born in Africa. [↑](#footnote-ref-9)
9. *Cerelac* is the name of a wheat- or rice-based infant cereal, usually in powdered form that can be made up into a porridge by adding warm water or milk. It is common among the Afro-Caribbean community. [↑](#footnote-ref-10)
10. Eba is a meal made from cassava that has been processed by first drying and then grinding into flakes. It is then cooked in hot water into a lumpy texture. [↑](#footnote-ref-11)
11. Fufu is made from fermented cassava powder, cooked with hot water to form a lumpy texture. [↑](#footnote-ref-12)
12. Semo is an abbreviation for Semolina. Semolina meal is a ball-like porridge meal prepared by adding semolina to hot water. [↑](#footnote-ref-13)
13. Pap is a Nigerian corn meal porridge with a characteristic sour taste, made from soaked corn starch. [↑](#footnote-ref-14)
14. Establishing breastfeeding describes the process it takes for a mother and new born to learn the act of breastfeeding and to achieve maximal milk supply for the infants’ satisfaction. [↑](#footnote-ref-15)