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TITLE

Men's views and experiences of infant feeding: A qualitative systematic review

ABSTRACT

While the advantages of breastfeeding are well documented, rates for breastfeeding often fall short of international and national targets. Increasing attention has been paid to the role of men in infant feeding but a lot of the research about men has been elicited from women, rather than from men themselves. To explore these issues further, a systematic review of the qualitative research on infant feeding was carried out, focusing specifically on men's own views and experiences. Evidence was identified by searching electronic databases (CINAL, Cochrane, PubMed and Scopus), manually searching citations, and by searching the grey literature. Studies were included in the review if they discussed men's views and experiences of infant feeding and if they reported primary qualitative data. A total of 20 research papers were included in the review and each study was summarised and then analysed thematically to produce a synthesis. Five major analytical themes were identified: men's knowledge of infant feeding; men's perceptions of their role in infant feeding; positive views on breastfeeding; negative views on breastfeeding; and, men's experiences of health promotion and support. The review concludes by highlighting that while men can play an important role in supporting women, they do not have a significant role in infant feeding decisions.

INTRODUCTION

In May 2016, the World Health Organisation (World Health Organisation, 2016a) endorsed global targets for improving infant, young child and maternal nutrition including the aim to 'increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%' in order 'to achieve optimal growth, development and health' (World Health Organisation 2016b). The beneficial short and long-term health effects of breastfeeding for both mother and baby,

wherever they live, are well documented (Victora *et al.* 2016; World Health Organisation 2016c). However, despite World Health Organisation, United Nations, and national policies for the promotion of breastfeeding over the past 25 years, the rate of exclusive breastfeeding to six months in low and middle-income countries was 37% in 2013 (Rollins *et al.* 2016: 491). For high-income countries Victora *et al.* (2016) suggest that the rate of breastfeeding to 12 months is 20%, noting the range between Norway (35%), the USA (27%), Sweden (16%) and the UK (<1%). A UNICEF-UK study reported that 75% of babies in the UK receive no breastmilk at all (Renfrew *et al.* 2012: 17). To summarise, in low- and middle-income countries poor women breastfeed for longer than rich women but in high-income countries, the situation is reversed (Victora *et al.* 2016).

Aspects that influence breastfeeding behaviours, decisions and practices vary over time and include historical, cultural and socio-economic factors (Britton, *et al.* 2007; Rollins *et al.* 2016). It has been widely reported that the attitudes of partners and female relatives are likely to affect infant feeding decisions (Bar-Yam & Darby 1997; Britton *et al.* 2007; Earle 2002; Gibson-Davis & Brooks-Gunn 2007; Morrison *et al.* 2008; Rollins *et al.* 2016; Sherriff *et al.* 2014). Moreover, the father of the baby has been shown to be particularly influential especially with respect to breastfeeding intention, engagement and continuance (Giugliani *et al.* 1994; Bar-Yam & Darby 1997; Earle, 2000; Freed *et al.* 1992; Mueffelman *et al.* 2015; Shaker *et al.* 2004; Sherriff *et al.* 2009; Hoffman 2011; Sherriff *et al.* 2014). However, many studies are quantitative in nature and measure a particular intervention at a certain time and with a specific population (for example, see Molzan Turan *et al.* 2001 or Rempel & Rempel, 2004). Fewer studies adopt qualitative methods that focus on views and experiences of infant feeding more generally and of those that do, the majority draw on the views and experiences of women rather than involving men directly themselves. The paucity of data on

fathers' involvement in breastfeeding was highlighted by Roll and Cheater's (2016) literature review of the factors that influence expectant parents' views on infant feeding. They found only one study that briefly mentioned fathers and as a result their findings 'principally addresses expectant mothers' views' (Roll & Cheater 2016: 148). Recent research has highlighted the value of qualitative research methods in understanding infant feeding (Leeming *et al.* 2017).

Given the perceived significance of fathers in infant feeding decision-making and practice, it is important to investigate their role more fully. Therefore, the aim of this review was to explore and summarise qualitative insights into men's views and experiences of infant feeding. The findings have implications for health promotion policy and practice, including the design of interventions.

KEY MESSAGES

- This international review identified 20 papers that reported original qualitative data on men's views and experiences of infant feeding.
- Men are rarely responsible for infant feeding decisions although they play a supportive role, especially in the decision to continue with breastfeeding.
- There is a need for dedicated health promotion materials aimed at men.
- In the majority of studies, infant feeding was synonymous with breastfeeding; further research could explore infant feeding in its broadest sense to include formula feeding, bottle feeding and mixed feeding methods.

METHODS

Identification of studies

A systematic review of the qualitative research on men's views and experiences of infant feeding was carried out between April and August 2016 using a combination of search strategies to maximise identification of relevant studies (and using the CRD (2009) guidance). The aim of this review was to explore men's views and experiences of infant feeding drawing on original qualitative research from data elicited only from men themselves (in this context the focus was on husbands and partners including biological and non-biological fathers). Following advice from a data information specialist, database searching using keywords, titles and abstracts was conducted via four databases: CINAL, Cochrane, PubMed and Scopus (for search terms see Table 1). The same search terms were repeated across all databases. Manual searches were also carried out using the citations of the selected studies to identify further papers. The grey literature was also searched using Google (first 100 hits) and specialist sites that might contain information on men and infant feeding (La Leche League, The Breastfeeding Network, The Fatherhood Institute, National Childbirth Trust and UNICEF: The Baby Friendly Initiative).

Selection of studies

Papers were selected for inclusion if they discussed men's views and experiences of infant feeding and if they reported original qualitative data elicited from men. Studies were only included where direct quotations from men were given (see Noyes & Lewin 2011). For pragmatic reasons given limited financial and time constraints, the systematic review was restricted to studies published between 1 January 2000 and 30 March 2016. Studies published in languages other than English and Spanish were also excluded as they could not be translated by the project team. Given the focus on original qualitative data, studies that reported men's views and experiences based on data elicited from women were excluded. On this basis, papers that drew on secondary data analysis and literature reviews were also excluded.

The authors met on a regular basis to discuss the study. RH conducted the database searches and manually searched citations. Both authors conducted the manual search of other sources. RH screened paper titles and abstracts and identified papers that did not meet inclusion criteria and removed duplicates; SE checked titles and abstracts independently and agreed whether papers met criteria for inclusion. Eligible papers were shortlisted and both authors individually assessed full-text articles separately and then met to discuss their reasoning. Any discrepancies were dealt between them; there were no differences in judgement.

We identified a total of 121 records through database searching and an additional 85 were identified through other sources. After removing duplicates, 176 records remained and were screened using keywords, title and abstract. Following screening, 39 full-text articles were read to assess for eligibility. Of the 39 articles assessed, 20 met the criteria for inclusion (see figure 1).

Quality appraisal

Quality appraisal of the selected studies was conducted by both authors following the criteria described by Walsh and Downe (2008), a method that is intended to be used reflexively in the spirit of the qualitative research tradition. They suggest using criteria to give an indication of research quality without relying on checklists, ratings or scoring. Data were extracted on the following: Scope and purpose of study; study design; sampling strategy; analysis; interpretive framework; issues relating to reflexivity; issues relating to ethics; the relevance and transferability of the study; and, a narrative summary of the study quality (see Appendix 1-Supplementary Material). None of the studies were excluded from the review on the basis of the quality appraisal although it was used reflexively to provide context for data analysis and as suggested by CRD (2009: 10) 'assessed at the synthesis stage'. It was clear at this stage

that the weakest studies were less important in analytical terms and thus were less likely to be represented within the findings. In weaker studies, the quality of analysis and the quality of any interpretive framework applied were particularly relevant, especially in relation to how the findings were discussed and the extent to which primary data were used to confirm the findings.

Data summary and synthesis

We used two main approaches in order to analyse the data: summary and thematic synthesis. First, we summarised each study (see Table 2). Second, using QSR NVivo 11 for Mac, a qualitative data analysis software package, we conducted an inductive thematic analysis, as broadly proposed by Braun and Clarke (2006), using the method of constant comparison (Lincoln and Guba 1985) to produce a synthesis of men's views and experiences of infant feeding. While there are many methods that can be employed in the systematic review of qualitative studies (Thomas & Harden 2008; Barnett-Page & Thomas 2009), we used the findings of each paper and the primary data (quotes) contained therein to carry out the line-by-line coding. SE read the selected studies three times and then analysed inductively, generating 65 initial codes; we discussed these initial codes together. Using a dynamic process of constant comparison, or 'going back and forth' (Lincoln & Guba 1985: 342), we reviewed the codes and collapsed some of them. After completing this process, 48 codes remained and we grouped them into descriptive categories. We then compared the codes and categories for completeness and robustness. At this stage some of the categories were collapsed and some codes were moved between categories. In the final stage of analysis, the categories were grouped into five main analytical themes as described in the findings below. As Thomas & Harden (2008) have argued, while the line-by-line coding and the descriptive categories remain 'close' to the primary studies included in the review, the analytical themes

represent a stage of interpretation that goes beyond this while still remaining rooted in the data.

FINDINGS

The included studies (19 papers in peer-reviewed journals and one dissertation) were based on a range of qualitative methods including interviews (n13), focus groups (n7), questionnaires (n2) and online surveys (n1) and provided data for 457 men. The majority of studies were based in the UK (n8), six were based in the USA, two in Australia and one each in Brazil, Canada, Eastern Uganda and Pakistan. The earliest paper was published in 2000 but the majority were published from 2009 onwards. Two of the papers (Sherriff *et al.* 2009; Sherriff & Hall 2011) reported data from the same study but reported sufficiently different qualitative data to include them both. Men were recruited to the studies using a variety of methods and sometimes used multiple methods due to difficulties with recruitment. Eleven studies recruited participants through service providers (including ante- and post-natal, gynaecology and obstetrics), six advertised at local settings and events; three studies relied on social networks and snowballing and one study recruited from the general population. Eleven studies were designed to recruit men only and the remainder (n9) to recruit both men and women. In all but two of the studies data were gathered from men on their own, or with other men (for example, in focus groups). In one study, it was clear that men were interviewed as part of a couple (Hoddinott *et al.* 2012) and in another, some men participated in mixed-sex group discussions (Pontes *et al.* 2009). See Table 2 and Appendix 1 for further details.

Our analysis of the 20 included papers revealed five analytical themes: men's knowledge of infant feeding; men's perceptions of their role in infant feeding; positive views on breastfeeding; negative views on breastfeeding; and, men's experiences of health promotion

and support. See Table 3 for a summary of the analysis. As discussed above, these themes are derived from an analysis of the findings and the primary data found in the included studies. The analysis aim was to remain ‘close’ to the original primary data while allowing a synthesis of the studies to emerge and so quotes are used to illustrate each analytical theme.

Men’s knowledge of infant feeding

The majority of studies (n17) were concerned with men’s knowledge of infant feeding and referred specifically to the ways in which men learn about breastfeeding. While some men sought to inform themselves, the primary data suggest that men do not generally consider themselves experts in the matter of infant feeding. All but three of the studies (Okon 2004; Smith *et al.*, 2006; Pontes *et al.*, 2009) stated that men learned about breastfeeding from books, health promotion materials (e.g. posters and pamphlets), the internet and from classes. For example, one man said:

‘I went on the internet and did some reading myself.’ (Brown & Davies 2014: 517)

Men described how they went about finding information out for themselves and seldom reported receiving information directly from health professionals (Sweet & Darbyshire 2009; Anderson *et al.* 2010; Avery & Magnus 2011). When they did, it tended to be in very specific contexts. For example, one father described receiving advice from doctors about the benefits of breast milk for his pre-term baby:

‘I think the information we got was quite sufficient. [...] it’s like, you know, best for the baby, immune system and, you know’ (Sweet & Darbyshire 2009: 545).

The selected studies also highlighted how men greatly valued experiential knowledge, be it their own (Sweet & Darbyshire 2009), Anderson *et al.* 2010), their partners (Sweet & Darbyshire 2009) or that of family and friends (Schmidt 2000; Anderson *et al.* 2010; Brown & Davies 2014). Some men valued advice more from health professionals that also possessed personal experiential knowledge of raising children. For example, in the study by Anderson *et al.* (2010) one man questioned the value of professional advice:

‘[...] You know, like is this person telling me this and they probably don’t even have any children? You know?’ (Anderson et al. 2010: 527)

Many men learned about breastfeeding directly from their partners (Rempel & Rempel 2011; Mitchell-Box & Braun 2012; Brown & Davies 2014; Mithani *et al.* 2015). For example, one man said *‘she knows all that stuff’* (Mitchell-Box & Braun 2012: E44) and another remarked that: *‘It is easy to feel that the mother knows what to do and for the dad to stand back...’* (Tohotoa *et al.* 2009: 9). Women were seen to be better informed and more knowledgeable about infant feeding than men.

Men’s perceptions of their role in infant feeding

Given that men consider themselves less knowledgeable than women about infant feeding, the data show that most men leave decision-making to women. Thirteen of the selected studies reported men’s views and experiences on infant feeding decisions (Schmidt & Sigman-Grant 2000; Okon 2004; Sherriff *et al.* 2009; Sweet & Darbyshire 2009; Anderson *et al.* 2010; Engebretson *et al.* 2010; Harwood 2011; Avery & Magnus 2011; Rempel & Rempel 2011; Datta *et al.* 2012; Mitchell-Box & Braun 2012; Brown & Davies 2014;

230 Sherriff, Hall & Panton 2014). Regarding the decision to breastfeed or not, one of the men
231 summarises his perspective thus:

232 *I don't think that really concerns me because the way I look at it, I mean, she's*
233 *carrying the child and she's got to deliver the child and she's the one that's got*
234 *the milk so I, I feel that I don't think I really have a say' (Sweet & Darbyshire*
235 *2009: 544)*
236

237 Some men said that their views were taken into account and that they were entitled to offer an
238 opinion or encouragement (to breastfeed), although views were in the minority. Occasionally,
239 men reported making decisions jointly with their partner (Anderson *et al.* 2010; Datta *et al.*
240 2012). Very rarely men said that they were entitled to exert a stronger influence. For
241 example, in the Canadian study by Rempel and Rempel (2011), which included fathers of
242 breastfed babies, some men had quite strong views about initiating and maintaining
243 breastfeeding and were prepared to push their views:

245 *'I have always pushed it with her to. Even if she would want to stop I don't think*
246 *I would just let her stop right away.'* (Rempel & Rempel 2011: 117)
247

248 More rarely still, Engebretsen *et al.* (2010) reported data from a study carried out in Eastern
249 Uganda where a decision not to breastfeed would carry sanctions. In a society where
250 breastfeeding is an important part of the local infant feeding culture and where not
251 breastfeeding is perceived as a neglect of maternal responsibility, men reported that they
252 would be prepared to take extreme (including violent) action should the mother not
253 breastfeed:

255 *'I would report her to the LCs [local chairman] and she will cease being my*
256 *wife.'* (Engebretsen *et al.* 2010: 8)

257

258 Most commonly, interfering with women's infant feeding decisions was largely considered
259 unthinkable. As one man commented:

260

261 *'I'd like to see her face if I walked in and said, you know, "I've decided."'*

262 *(Avery & Magnus 2011: 151)*

263

264 Many of the studies we analysed considered men's role in breastfeeding (n13) (Schmidt &
265 Sigman-Grant 2000; Okon 2004; Smith *et al.* 2006; Pontes *et al.* 2009; Sherriff *et al.* 2009;
266 Sweet & Darbyshire 2009; Anderson *et al.* 2010; Avery & Magnus 2011; Harwood 2011;
267 Rempel & Rempel 2011; Datta *et al.* 2012; Sherriff *et al.* 2014; Mithani *et al.* 2015). The
268 majority of men described how they provided practical support to women and this included
269 taking on more of the household chores and caring for other children (Schmidt & Sigman-
270 Grant 2000; Okon 2004; Smith *et al.* 2006; Sherriff *et al.* 2009; Anderson *et al.* 2010; Avery
271 & Magnus 2011; Datta *et al.* 2012). Men also said that they tried to provide assistance to
272 women during breastfeeding (Pontes *et al.* 2009; Rempel & Rempel 2011; Sherriff *et al.*
273 2014; Harwood 2011; Avery & Magnus 2011; Mithani *et al.* 2015). One man described his
274 role:

275

276 *'She's got two objectives: to look after the baby and to look after herself. My*

277 *objectives are to look after everything else. [...]' (Datta et al. 2012: 7)*

278

279 Six of the papers referred specifically to men's role in supporting breast pumping or men's
280 involvement in bottle feeding babies with expressed breast milk (Schmidt & Sigman-Grant
281 2000; Okon 2004; Sweet & Darbyshire 2009; Harwood 2011; Rempel & Rempel 2011; Datta

et al. 2012). Men spoke with enthusiasm about taking responsibility for the various tasks involved in breast-pumping (for example, cleaning and transporting equipment) and spoke about the enjoyment of feeding their babies.

Approximately half of all the selected studies discussed the role that men played in the provision of emotional support for women that were breastfeeding (Okon 2004; Smith et al. 2006; Sweet & Darbyshire 2009; Tohotoa et al. 2009; Anderson et al. 2010; Harwood 2011; Rempel & Rempel 2011; Datta et al. 2012; Sherriff et al. 2014; Mithani et al. 2015). For some men this meant being patient and understanding of their partners because breastfeeding was a ‘gender-specific role’, as one man said:

‘It meant waiting and hoping this period of breastfeeding...should have ended.’
(Okon 2004: 390)

For the majority of men, providing emotional support meant taking on a ‘cheer-leader’ role and providing encouragement when women felt tired, upset or felt like ‘giving up’ breastfeeding (Okon 2004; Smith 2006; Sweet & Darbyshire 2009; Harwood 2011; Datta et al. 2012; Sherriff et al. 2014; Mithani et al. 2015). In two of the studies men also talked about being an advocate for their breastfeeding partner, and defending their decision to breastfeed (Tohotoa et al. 2009; Anderson et al. 2010). In the Australian study conducted by Tohotoa et al. (2009) one father explained the importance of breastfeeding to his extended family:

‘This is our parenting journey. Please be respectful, we feel it's best to do it this way [breastfeed]. Thank you for understanding.’ (Tohotoa et al. 2009: 8)

To summarise, the primary data indicate that men's role in infant feeding is to provide practical and emotional support rather than to take the lead in infant feeding decisions.

Positive views on breastfeeding

Our analysis highlights that positive views on breastfeeding were expressed by men where a culture of breastfeeding is normalised. We think this is an important analytical theme because the studies we reviewed associated men's positive views on breastfeeding with women's likelihood to initiate and maintain breastfeeding. For example, in Okon's (2004) UK study, which included men from different ethnic backgrounds, normalised cultures of breastfeeding had a positive impact on the decision to breastfeed. One man said:

'At home (Nigeria)...most of the time our parents did breastfeed.' (Okon 2004: 390)

Similarly, in the study carried out in Hawai'i by Mitchell-Box and Braun (2012) men from Brazil and Indonesia commented on how they supported breastfeeding because they had grown up surrounded by breastfeeding women. In the Pakistani study by Mithani *et al.* (2015) religious beliefs were seen to be a major facilitating factor for initiating breastfeeding, as one father commented:

'... because I want to follow the guidance of the Quran ... if God has given diet for the child, how can we human beings disrespect and devalue the child's right [...]?' (Mithani et al. 2015: 254)

In five of the studies, men specifically referred to the ideology of 'breast is best' although were not always able to specify why they believed this was so (Sherriff *et al.* 2009; Sweet &

Darbyshire 2009; Henderson *et al.* 2011; Sherriff & Hall 2011; Brown & Davies 2014). In other studies (n13), men described breastfeeding as something that was ‘natural’:

‘It is the most natural way of feeding a newborn baby.’ (Okon, 2004: 389)

‘I don’t know, it’s just a normal part of life, nature’s way of feeding the babies, so, yeah, it’s just the normal thing to do.’ (Sweet & Darbyshire 2009: 545)

Many men also regarded breastfeeding as being healthier for babies and mothers:

‘I’ve heard BF [breastfeeding] reduces the chances of food allergies.’ (Schmidt & Sigman-Grant 2000: 36)

Men described many reasons for their positive views on breastfeeding. Breastfeeding was also seen by some men as being cheaper and more convenient than formula feeding (Schmidt & Sigman-Grant 2000; Brown & Davies 2014), as having a positive impact on women’s bodies postnatally (Henderson *et al.* 2011) and as being a transient phase (Pontes *et al.* 2009).

Negative views on breastfeeding

The findings of our analysis revealed that men sometimes held negative views on breastfeeding either because they felt discomfort about breastfeeding in public; had a lack of support from the wider family; had feelings of exclusion; were concern for partners; or because they believed that bottle-feeding was better or more convenient. This analytical theme seemed important in so far as the studies we reviewed regarded men’s negative views on breastfeeding as a barrier to the initiation and continuation of breastfeeding. Eight of the studies discussed men’s concerns with breastfeeding in public, which men found

embarrassing and made them feel uncomfortable (Pontes *et al.* 2009; Tohotoa *et al.* 2009; Henderson *et al.* 2011; Avery & Magnus 2011; Rempel & Rempel 2011; Mitchell-Box & Braun 2012; Brown & Davies 2014; Sherriff *et al.* 2014). It is interesting to note that, in this context, this does not just refer to breastfeeding in public spaces in the company of strangers, but breastfeeding in front of family and friends, and in the private space of the home. Men often acknowledged that while breastfeeding was ‘natural’, it still made them feel uncomfortable and were concerned that it could be seen as socially unacceptable:

‘I would be a little uncomfortable with my wife doing it in public, you know....I think society sort of is not really that welcoming to that sort of thing [...]’ (Avery & Magnus 2011: 151)

In the study by Henderson *et al.* (2011), the authors commented on the way that men often used humour to deal with embarrassment. This study reported the experiences of men living in socially deprived areas in England and Scotland, including the experiences of younger men and potential fathers. It was clear that there was a tension between the sexualisation of women’s breasts and their role in infant feeding. Breastfeeding was sometimes seen as morally inappropriate and some young men described women who breastfed as ‘slappers’ (morally loose) (Henderson *et al.*, 2011: 66).

A lack of family support also influenced men’s views of breastfeeding in a quarter of the studies (Pontes *et al.* 2009; Tohotoa *et al.* 2009; Anderson *et al.* 2010; Sherriff *et al.* 2014; Mithani *et al.* 2015). The evidence suggests that families can undermine efforts to breastfeed or can encourage the use of formula milk. Some men sought to defend their decision to

breastfeed against interference from family. In the study by Mithani *et al.* (2015) one man described the pressure from extended family:

'My family [elder sister] did not support our breastfeeding decision, and my wife was pressured to keep the baby on both [breastfeeding and bottle feeding].'
(Mithani 2015: 254)

Thirteen of the studies we reviewed highlighted men's feelings of exclusion from breastfeeding (Schmidt & Sigman-Grant 2000; Okon 2004; Pontes *et al.* 2009; Sweet & Darbyshire 2009; Tohotoa *et al.* 2009; Harwood 2011; Sherriff & Hall 2011; Avery & Magnus 2011; Rempel & Rempel 2011; Hoddinott *et al.* 2012; Mitchell-Box & Braun 2012; Brown & Davies 2014; Sherriff *et al.* 2014). As one man succinctly said: 'I felt very much excluded' (Pontes *et al.* 2009: 199). Whilst most men supported women's decision to breastfeed and often believed that 'breast was best' they wanted more opportunities to 'bond' with their babies and breastfeeding was seen as a barrier to bonding. Men talked about how feelings of exclusion lead to tensions in their relationships with partners, as one man said:

'I'm really ashamed at it now but I did take it out on my partner sometimes by being miserable with her or even shouting sometimes. I felt excluded and stressed but it wasn't her fault. [...]'(Brown & Davies 2014: 517)

However, men also expressed concern for their partners, particularly when breastfeeding was difficult to establish, when problems occurred, or when partners were feeling tired or upset. Men sometimes said that they felt 'helpless' and 'guilty' because they could not help to overcome these problems (Avery & Magnus 2011; Brown & Davies 2014). One of the

participants in the study by Sherriff *et al.* (2014) advised his partner to ‘give up’ trying to breastfeed:

‘I said to her “just give up”. A friend of mine she tried for a few days it didn’t work for her and she stopped... [my wife] was more determined to persevere with it than me...I could see the agony she was in.’ (Sherriff et al. 2014: 674)

Discontinuation of breastfeeding, moving to mixed feeding or introducing solids was often a pragmatic response to perceived problems. Seven of the studies indicate that some men believed that formula feeding was better or more convenient than breastfeeding (Mithani *et al.* 2015), describing it as ‘a lot safer’ or as something that ‘gives you independence’. It was often assumed that breastfeeding would come ‘naturally’ and be ‘easy’ and when this was not so, bottle-feeding was the solution (Sweet & Darbyshire 2009; Sherriff *et al.* 2009; Sherriff & Hall 2011; Hoddinott *et al.* 2012) Even when breastfeeding was the preferred choice of infant feeding, formula-feeding was often introduced when women returned to work, as one man comments:

‘Ultimately, we’ve preferred breastfeeding. The only reason we switched over was because she had to go back to work. [...]’ (Mitchell-Box & Braun 2012: 45)

This pragmatic approach was often a barrier to breastfeeding.

Men’s experiences of health promotion and support

Many of the studies (n10) discussed men’s experiences of health promotion and support, especially those that sought to explore this issue in order to make recommendations for

practice (Anderson *et al.* 2010; Brown & Davies 2014; Datta *et al.* 2012; Hoddinott *et al.* 2012; Mithani *et al.* 2015; Okon 2004; Sherriff *et al.* 2009; Sherriff & Hall 2011; Sherriff *et al.* 2014; Tohotoa *et al.* 2009). Some men reported that they felt excluded and wanted to be included in health promotion related to breastfeeding. Many men said that they felt either directly or indirectly excluded:

'The information was all aimed at my wife. What she could eat, do, experience etc. I know she was the key player here but I felt that it was nothing to do with me. When we went to antenatal classes they did a session on breastfeeding. They sent all the dads down the pub that night.' (Brown & Davies 2014: 518)

They also said that they sometimes felt patronised by health professionals:

'One midwife actually told me in front of my wife that breastfeeding was a good thing as it would make her breasts bigger. I'm not that shallow.' (Brown & Davies 2014: 519)

Even when men were explicitly included they often felt like 'the odd one out':

'[...] It felt a bit weird cos I was the only bloke there at the class, at the breastfeeding one...They say on the letter "partners welcome", but I was the only male, it was a bit funny: "am I supposed to be here?" (Sherriff & Hall 2011: 471)

In five of the studies, men said that they wanted health promotion to be more ‘father-friendly’ and more focused on their needs; this ranged from scheduling classes at appropriate times (for example in the evenings) to showing positive images of men and breastfeeding in health promotion literature (Sherriff *et al.* 2009; Sherriff & Hall 2011; Sherriff *et al.* 2014; Mitchell-Box & Braun 2012; Brown & Davies 2014).

The studies suggest that men value two particular types of information above all others. First, all of the men that discussed their information needs said that they wanted information that was ‘factual’ and ‘specific’ rather than vague. They were critical of information that claimed ‘breast was best’ without explaining how and why this was the case. For example:

‘I read somewhere that if you breastfed you saved £500 a year on formula and bottles and things and were saving the NHS money too. I like figures.’ (Brown & Davies 2014: 518)

Second, men said that they valued pragmatic and realistic advice that would help them support their partners and would help prepare them for the realities of breastfeeding (Schmidt & Sigman-Grant 2000; Smith *et al.* 2006). Men were consistent in their request for ‘warts and all’ information:

‘A no bullshit idea of what to expect and how to help even if that means doing nothing but being there with her and the baby.’ (Tohotoa et al. 2009: 9)

Some men talked negatively about information that was overly idealistic or ideological and which put pressure on women to breastfeed at all costs, for example:

483

484 *'My partner got very distressed when she gave up breastfeeding [...] I got quite*
485 *angry at people telling my wife she had to breastfeed when they couldn't give me*
486 *evidence that it wasn't as catastrophic to formula feed as they implied.'* (Brown
487 *& Davies 2014: 518)*

488

489 As discussed earlier, men valued experiential knowledge, and given their preference for
490 information that was realistic, some men said that they would welcome peer education and
491 support (Brown & Davies 2014). In the study by Hoddinott *et al.* (2012), one man suggested:

492

493 *'If you had mums with babies coming along (to classes before birth) I'd be*
494 *interested to see where difficulties lay so that I could be there to support and*
495 *say, "well that's kind of normal" and "d'you remember that woman had that*
496 *particular issue for a couple of months but then it kind of came good in the*
497 *end?", kind of thing.'* (Hoddinott 2012: 6)

498

499 Very generally men said that they wanted to be included more in health promotion. The
500 literature suggests they wanted to be supported and wanted their feelings to be
501 acknowledged. However, men said that they needed information that was factual, specific
502 and realistic.

503

504 **DISCUSSION AND CONCLUSION**

505 This review provides a synthesis of the qualitative literature on men's views and experiences
506 of infant feeding and has identified five major analytical themes. It is interesting to note that
507 while our review focuses on men and *infant feeding*, in the majority of studies, infant feeding
508 was synonymous with breastfeeding. We imagine that this focus reflects the concerns of

509 funders and policy-makers as well as national and international imperatives and targets
510 (World Health Organisation 2016b; 2016c) that set out to promote exclusive breastfeeding.
511

512 In contrast to previous literature, which suggested that men are important in decisions
513 concerning infant feeding (Freed *et al.* 1992, Bar-Yam & Darby 1997; Earle, 2000; Shaker *et*
514 *al.* 2004, Mueffelman *et al.* 2015), our review found that men are seldom the decision-
515 makers. Rather, men tend to see their role as supporting the decisions made by women, rarely
516 exerting influence even when they might feel strongly on the matter, thus reinforcing the
517 view that infant feeding is ‘women’s business’. This was particularly so in relation to
518 breastfeeding initiation. Only very exceptionally did men offer strong opinions or advice
519 contrary to their partner’s views (for example, see Engebretsen 2010 and Rempel & Rempel
520 2011). Our findings are generally consistent with previous research which indicated that men
521 are significant in the continuation of breastfeeding (Giugliani *et al.* 1994). Although men do
522 not decide on whether breastfeeding should continue or be discontinued, the studies we
523 reviewed showed that men play an important role in supporting women, providing practical
524 and emotional support, and advocacy. Men were also instrumental in the discontinuation of
525 breastfeeding as a pragmatic response to perceived problems, but their role is one of
526 facilitator, rather than decision-maker.

527

528 Our review indicates that men could feel excluded from the business of infant feeding and
529 feel excluded from the process of breastfeeding. In some of the studies (Schmidt and Sigman-
530 Grant 2000; Okon 2004; Sweet and Darbyshire 2009; Harwood 2011; Rempel and Rempel
531 2011; Datta, Graham and Wellings 2012), authors reported men’s enjoyment of bottle-
532 feeding and breast-pumping, both of which provided opportunities for involvement and
533 ‘bonding’ with their infants. Men rarely learn about infant feeding from health professionals

and health promotion rarely speaks to their needs. The findings show that men often learn about breastfeeding from their partners and appear to value experiential knowledge over information that is overly idealistic or theoretical again highlighting their preference for information that is practical and specific.

This review has a number of limitations. We set out to carry out the review because we were interested in the increasing focus on men and infant feeding. Consequently, we wanted to explore men's views and experiences and how far they were involved in the process. Given this specific focus, the review has focused on papers that have collected primary qualitative data exploring men's perceptions, opinions, experiences, views and conceptualisations of infant feeding. For pragmatic reasons, we only included studies published in English or Spanish and published between January 2000 and March 2016. Although systematic reviews of qualitative research are not necessarily driven by the imperative to find every single published paper in the field (Thomas & Harden 2008), we may have missed some studies published before 2000 and those written in languages other than English or Spanish. That said, there was limited interest in men and infant feeding before this time and the majority of studies have been published since 2009. It is also worth noting that the studies are relatively homogenous in so far as they tended to involve men that were planning to/or were involved in breastfeeding. The homogeneity of these studies no doubt affects our findings and knowledge of this field in general. There is no one agreed approach to conducting a qualitative systematic review and this paper is based on a summary and thematic analysis of the primary research findings. As other researchers have argued (for example, Lorenc 2012: 354) this method may have 'under-estimated the complexity and diversity of individuals' views' and other approaches may have yielded qualitatively different findings from those presented here. We must also note that we did not exclude papers on the basis of quality

appraisal. Given that there is no agreed methodology by which to do this within a qualitative framework (Thomas & Harden 2009) we chose to include them all, but note that in the synthesis stage the poorer quality studies tended to contribute less to the synthesis.

In spite of these limitations, to our knowledge, this review on men and infant feeding is the first of its kind to draw solely on primary qualitative data that focus on men's views and experiences, rather than on studies that infer about men from research conducted predominantly with women (for example, see Bar-Yam & Darby 1997). As such, this paper presents important findings for clinical practice. It highlights men's role in supporting infant feeding (especially breastfeeding continuation) but indicates that women are key to infant feeding decisions more generally. The findings also indicate that more targeted health promotion for men is required which addresses their needs for factual, specific and practical information while also speaking to their emotional needs and potential feelings of anxiety, helplessness and exclusion.

Future research in this area might benefit from focusing on infant feeding in its broadest sense rather than focusing on breastfeeding, as though these practices were synonymous. This would allow for a deeper understanding concerning decisions, motivations, practices and experiences of formula-feeding, bottle-feeding and mixed-feeding methods. There is also scope to widen research to include men who have no experience of breastfeeding or who are against the idea of breastfeeding. The current literature is informative because it tells us about the factors that influence breastfeeding but there is, no doubt, much to be gained from exploring men's views and experiences of breastfeeding when they have no experience of it or reject it entirely. Health practitioners may gain more from understanding the views and

experiences of these men than from those men who are already ‘warm’ to the idea of breastfeeding.

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733 **Figure captions**

734 Figure 1 Flow diagram showing review process

735

736 **Table captions**

737 Table 1 Search terms used for review

738 Table 2 Summary of characteristics of included studies

739

740 **Supplementary material**

741 Appendix 1 Quality appraisal of included studies

Figure 1 Flow diagram showing review process

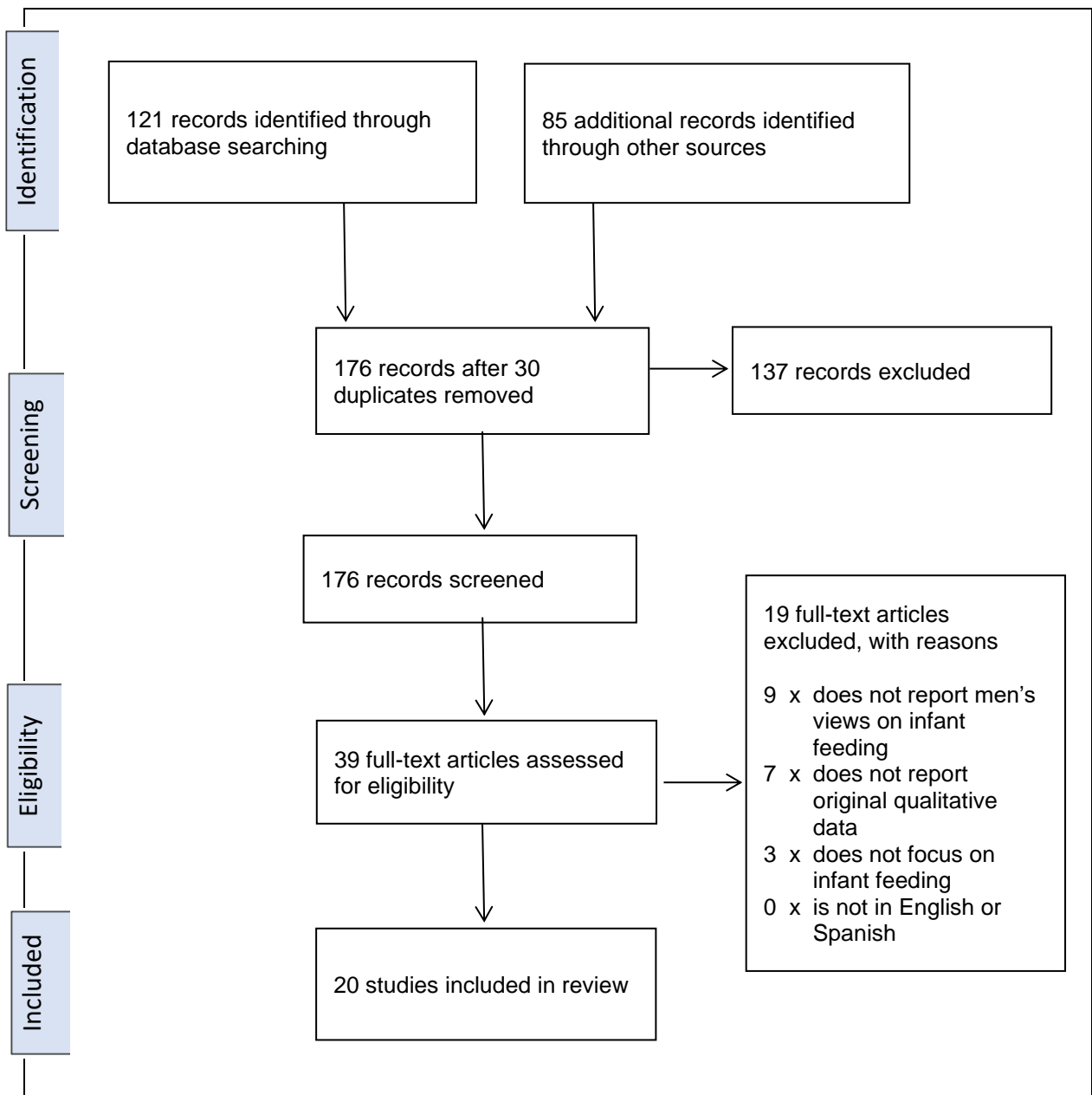


Table 1 - A summary of characteristics of the included studies

Study reference	Aims of study	Participants	Method of data collection	Method of analysis	Recruitment, Setting & Context	Country
Anderson, Spence and Kavanagh (2010)	To explore how male caregiver (father or partner) of mothers in low-income households perceive the role they play in feeding and caring for their infants	21 men aged 21- 57 years from variety of racial backgrounds and education levels. 18 biological fathers; 10 first-time fathers; 10 were married	Semi-structured telephone interviews	Standard grounded theory procedure	Recruited via women attending a Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	USA
Avery and Magnus (2011)	To better understand how pregnant women and male partners conceptualise infant feeding and support for breastfeeding	40 men who expected to become fathers in next 12 months; various professional education and income levels; White American and African American	Focus group interviews	Based on Grounded Theory approach	Recruited from general population of three US cities where woman was expecting or planning first child within 12 months	USA
Brown and Davies (2014)	To explore fathers' experiences of supporting their partner during breastfeeding and to examine their attitudes towards the education, information and support they received	117 men whose partner had given birth and initiated breastfeeding	Cross-sectional, self-report questionnaire	Qualitative descriptive approach; content analysis	Flyers, face-to-face and intermediary requests at local nurseries, mother and baby groups plus online	UK

Study reference	Aims of study	Participants	Method of data collection	Method of analysis	Recruitment, Setting & Context	Country
Datta, Graham and Wellings (2012)	To explore couples' decision making regarding infant feeding, parents' views on the father's role in relation to breastfeeding, and examines some dilemmas fathers face when supporting a breastfeeding partner	14, generally well-educated, men aged 23-64 years	Telephone interview	Thematic coding	Majority of participants recruited through ultrasound department or postnatal ward at one County Hospital	UK
Engebretsen et al. (2010)	To explore how EBF (Exclusive breastfeeding) and ERF (Exclusive replacement feeding) were perceived among parents in communities in Eastern Uganda and the norms and social environments of infant feeding practices	38 men living in rural and urban areas, aged 16-40 years	Focus groups – part of larger multi-centre trial	Thematic coding	Local village vaccinators or local chairmen	Eastern Uganda
Harwood (2011)	To assess the intent of expecting fathers to encourage breastfeeding; to explore perceptions of the father's involvement in breastfeeding and barriers to encouraging breastfeeding.	10 expecting fathers aged 19-24 years	Questionnaire and 1:1 interview	Questionnaire scored according to Theory of Planned Behaviour; plus thematic analysis	Crisis pregnancy centre and Special Supplemental Nutrition Programme for Women, Infants and Children (WIC)	USA

Study reference	Aims of study	Participants	Method of data collection	Method of analysis	Recruitment, Setting & Context	Country
Henderson et al. (2011)	To explore men's perceptions of breastfeeding and formula feeding and examine cultural associations and beliefs concerning infant feeding practices among men	28 white British men living in areas of social deprivation, aged 16-45 years; incl. fathers, expectant fathers and potential fathers	Focus groups	Used principles of grounded theory	Used unpublished data from two previous studies; recruitment via social networks	UK
Hoddinott et al. (2012)	To investigate the infant feeding experiences of women and their significant others from pregnancy until 6 months after birth to establish what would make a difference	28 partners of women living in areas of social deprivation	Qualitative serial interview study	Framework Analysis	Letters sent to women from lead health professional via Maternity Unit databases	UK
Mitchell-Box and Braun (2012)	To explore male partner's perceptions of breastfeeding to inform the development of interventions to increase their support of breastfeeding	14 male partners of low-income pregnant women or new mothers	Interviews	Qualitative grounded theory	Convenience sample from two Special Supplemental Nutrition Programmes for Women, Infants and Children (WIC) clinics	USA
Mithani et al. (2015)	To explore fathers' perceptions about breastfeeding infants	12 fathers whose partner had 2-4 children and had breastfed at least one child	Semi-structured-depth interviews	Thematic analysis	Two maternity homes in urban and semi-urban settings	Pakistan
Okon (2004)	To explore partners' perceptions of breastfeeding and the extent of their influence on infant-feeding decisions	8 male partners from different ethnic backgrounds	Open-ended in-depth interviews	Thematic analysis	Convenience sampling	UK

Study reference	Aims of study	Participants	Method of data collection	Method of analysis	Setting & Context	Country
Pontes, Osório and Alexandrino (2009)	To analyse the opinions of men and women on the father's participation in breastfeeding	11 men (inc. fathers and non-fathers)	Discussion groups	Content analysis	An event supported by the Federal University of Pernambuco, Brazil	Brazil
Rempel and Rempel (2011)	To describe what it is like to be the father of a breastfed baby and what role they play in the breastfeeding family	21 involved fathers of breastfeeding babies aged 27-48 years	Interviews	Thematic analysis	Flyers at provincial parenting resource centres plus snowballing	Canada
Schmidt and Sigman-Grant (2000)	To describe the processes used by low-income fathers who support breastfeeding and to identify a theoretical framework	17 predominantly White, low-income fathers living in rural communities	Discussion groups	Content analysis	Recruited as part of couple at Special Supplemental Nutrition Programme for Women, Infants and Children (WIC)	USA
Sherriff, Hall and Pickin (2009)	To explore fathers' experiences during pregnancy, birth and up to the first year	8 White British fathers, 8 fathers aged 28-47; all employed	In-depth semi-structured interviews	Content analysed using thematic analysis	Through partners plus local community breastfeeding co-ordinator	UK

Study reference	Aims of study	Participants	Method of data collection	Method of analysis	Setting & Context	Country
Sherriff and Hall (2011)	To conduct initial pilot scoping of fathers' views on breastfeeding in order to provide insights into possible interventions which could contribute to increasing rates of inclusive breastfeeding	8 White British fathers, aged 28-47; all employed	In-depth semi-structured interviews	Framework analysis	Through partners previously interviewed plus local community breastfeeding co-ordinator	UK
Sherriff, Hall and Panton (2014)	To analyse the concept of father support' in relation to maternity services and broader health settings	11 men who had been in a breastfeeding couple in past three years; over 18 years of age	Focus groups and telephone interviews	Concept analysis	Children's Centres	UK
Smith, Jamerson and Bernaix (2006)	To explore fathers' perceptions of behaviours used to support the provision of breastmilk to hospitalized premature infants	16 fathers with a hospitalized infant and a partner who has decided to provide breastmilk	Semi-structured interviews	Qualitative descriptive methods	NICU in academic medical center	USA
Sweet and Darbyshire (2009)	To explore fathers' experiences of the breastfeeding of their very-low-birthweight preterm babies from birth to 12 months of age	7 fathers (some first time fathers)	Longitudinal in-depth individual interviews	Interpretive phenomenology	NICU at publicly-funded tertiary level hospital that promotes breastfeeding	Australia
Tohotoa et al. (2009)	To identify parents' perceptions of what constitutes support for breastfeeding, particularly focusing on paternal support	28, predominantly first-time, fathers of breastfed infants aged 26-48 years; mostly married	Focus group, interviews and online survey	Thematic analysis/use of Social Cognitive Theory and Health Belief Model as analytical framework	Purposive sample recruited via posters in early learning centres and child health centres	Australia

Table 2 - A summary of the thematic analysis

<i>Analytical research themes</i>					
<i>Study references</i>	<i>Men's knowledge of infant feeding</i>	<i>Men's experiences of health promotion</i>	<i>Men's role in infant feeding</i>	<i>Positive views on breastfeeding</i>	<i>Negative views on breastfeeding</i>
Anderson, Spence and Kavanagh (2010)	✓	✓	✓		
Avery and Magnus (2011)	✓		✓	✓	✓
Brown and Davies (2014)	✓	✓	✓	✓	✓
Datta, Graham and Wellings (2012)	✓	✓	✓		✓
Engebretsen et al. (2010)	✓		✓	✓	✓
Harwood (2011)	✓		✓		
Henderson et al. (2011)	✓			✓	✓
Hoddinott et al. (2012)	✓	✓		✓	✓
Mitchell-Box and Braun (2012)	✓		✓	✓	✓
Mithani et al. (2015)	✓	✓	✓	✓	✓
Okon (2004)		✓	✓	✓	✓
Pontes, Osório and Alexandrino (2009)			✓	✓	✓
Rempel and Rempel (2011)	✓		✓	✓	✓
Schmidt and Sigman-Grant (2000)	✓		✓	✓	
Sherriff, Hall and Pickin (2009)	✓	✓	✓	✓	
Sherriff and Hall (2011)	✓	✓		✓	✓
Sherriff, Hall and Panton (2014)	✓	✓	✓	✓	✓
Smith, Jamerson and Bernaix (2006)			✓		
Sweet and Darbyshire (2009)	✓		✓	✓	✓
Tohotoa et al. (2009)	✓	✓	✓	✓	✓