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"Surely you're not still breastfeeding": A qualitative exploration of women's experiences of breastfeeding beyond infancy

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TITLE PAGE

"Surely you're not still breastfeeding":

A qualitative exploration of women's experiences of breastfeeding beyond infancy

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ABSTRACT

Objectives: To explore women's experiences of breastfeeding beyond infancy (>1 year). Understanding these experiences, including the motivators, enablers and barriers faced, may help inform future strategies to support and facilitate mothers to breastfeed for an optimal duration.

Design: An exploratory qualitative study using an interpretive approach. Semi-structured interviews were conducted (in-person, or via phone or Skype), transcribed and thematically analysed using the Framework Method.

Setting: Participants drawn from across the United Kingdom through online breastfeeding support groups.

Participants: Maximum variation sample of women currently breastfeeding a child older than one year, or who had done so in the previous five years. Participants were included if over 18, able to speak English at conversational level and resident in the UK.

Results: The findings offer insights into the challenges faced by women breastfeeding older children, including perceived social and cultural barriers. Three core themes were interpreted: (1) Parenting philosophy; (2) Breastfeeding beliefs; (3) Transition from babyhood to toddlerhood. Women had not intended to breastfeed beyond infancy prior to delivery, but developed a 'child-led' approach to parenting and internalised strong beliefs that breastfeeding is the biological norm. Women perceived a negative shift in approval for continued breastfeeding as their child transitioned from 'baby' to 'toddler'. This compelled woman to conceal breastfeeding and fostered a reluctance to seek advice from healthcare professionals. Mothers reported feeling pressured to breastfeed when their babies were young, but discouraged as children grew. They identified best with the term "natural-term breastfeeding".

Conclusions: This study suggests that providing antenatal education regarding biological weaning-ages and promotion of guidelines for optimum breastfeeding duration may encourage more women to breastfeed for longer. Promoting the concept of natural-term breastfeeding to mothers, and healthcare professionals, employers and the public is necessary to normalise and encourage acceptance of breastfeeding beyond infancy.

KEYWORDS

Breastfeeding; Lactation; Social Stigma; Social Support; natural-term breastfeeding; Qualitative Research

STRENGTHS AND LIMITATIONS OF THIS STUDY

- This interpretive, exploratory qualitative study contributes to the growing, but limited, literature on longer-term breastfeeding and identifies some potential practical solutions which may support women to breastfeed for an optimal duration.
- Due to the potentially sensitive nature of the topic, it can be difficult to identify and
 access breastfeeding women; however, this study used social media as a platform
 for recruitment, which allowed construction of a maximum variation sample,
 thereby increasing transferability.
- This study has a relatively large sample size with rich data, and analytic data saturation was achieved.
- Participants were predominantly white and highly educated, which could limit transferability, however, this may also reflect that this demographic is most likely to breastfeed past infancy.
- One of the authors has breastfed an older child, so a reflexive approach was
 important to mitigate the ways in which this may have inadvertently shaped data
 collection; a second analyst provided a different stance.

MAIN TEXT

INTRODUCTION

The fundamental importance of breastfeeding to the health and development of children is well established (1). The Lancet Breastfeeding Series synthesises comprehensive evidence demonstrating that breastfeeding offers the best nutritional start for infants, conferring short-term benefits such as lower infectious morbidity and mortality, as well as life-long protection against obesity and diabetes mellitus (1, 2). Mothers who breastfeed also benefit from reduced risk of breast cancer, and potentially ovarian cancer and diabetes (1).

The World Health Organization (WHO) currently recommends that infants in all settings should be exclusively breastfed until six months of age, after which they should receive nutritious complementary foods alongside continued breastfeeding for two years or beyond (3). However, it is important to highlight that the WHO recommendation lacks clarity regarding the duration for which the benefits of breastfeeding are sustained beyond 24 months.

Significant efforts have been made to promote breastfeeding, often focused on educating new and expectant mothers regarding benefits of breastfeeding (4), which to some extent have been successful. The last national Infant Feeding Survey (IFS) was conducted in 2010, and the results showed that 81% of babies born in the UK were breastfed at birth (5). However, that proportion fell sharply: at six months postpartum, the proportion of mothers exclusively breastfeeding was around 1%, and only 25% of infants were still receiving any breastmilk (5). Breastfeeding status after six months was not recorded and so it is difficult to estimate breastfeeding rates beyond this (6). The IFS has now been discontinued, and data

relating to breastfeeding initiation in England is captured and reported by NHS Digital via the Maternity Services Data Set (MSDS), and breastfeeding status at 6-8 weeks through the Children and Young People's Health Services (CYPHS) Data Set (7). As such, more recent data on breastfeeding rates at six months is unavailable. However, in 2018 Scotland published the results of its Maternal and Infant Nutrition Survey, in which 43% of respondents reported providing breastmilk to their infants at six months (8), although no data were provided about exclusive breastfeeding at six months. These data suggest that more women are breastfeeding and for longer. It is therefore important to understand the experiences and needs of these mothers who continue breast feeding beyond six months.

A recent large meta-analysis determined that breastfeeding should continue until at least two years to achieve its full effect (1). Protection from infectious diseases has been shown to persist into at least the second year of life, and longer breastfeeding durations were associated with a higher Intelligence Quotient (IQ), and a lower risk of obesity in the long-term (1,2). Additionally, fostering optimal breastfeeding duration has economic advantages, both in terms of reducing healthcare expenditure through decreasing infant morbidity and mortality (9), and increasing children's educational potential and likely future earnings, while simultaneously promoting social equity (10).

Almost all women are biologically able to breastfeed, except for those with a (very) few limiting medical disorders (11). Whilst initiation rates are high (5), most women discontinue much earlier than recommendations advise. It has been suggested that once breastfeeding has been established, one of the main factors influencing breastfeeding duration is the social environment in which breastfeeding occurs (12), with a wide range of social, cultural

and market factors shaping decision to continue, or persist (13). Research has found that worries about breastfeeding in public are prevalent (14), and negative reactions from others, and the feelings invoked by those reactions, contribute to decisions about how long to breastfeed (15). Previous qualitative research with breastfeeding mothers has found that many receive persistent, unsolicited advice about the need to wean and are encouraged to discontinue from nursing "too long" (4). Breastfeeding behaviours are, it seems, open to public evaluation, commented upon and criticised by family, friends, and strangers (16), resulting in stigma and social sanctioning (4,17). Whilst a substantial body of qualitative research exists examining women's breastfeeding experiences there are relatively fewer studies that have explored experiences of breastfeeding beyond six months (18). The small number of more recent studies have found that women nursing older children feel highly scrutinized (19), frequently face negative attitudes and criticism from others (18-21), and experience marginalization (19).

Building on this limited literature, this interpretive qualitative study aims to focus explicitly on women's experiences of breastfeeding beyond infancy (> 1 year of age). Understanding women's experiences, including the motivators, enablers and barriers faced, may help inform future strategies to support and facilitate mothers to breastfeed for an optimal or 'natural-term' duration. Throughout the paper, the term "weaning" is used to describe the process of stopping breastfeeding and is distinct from the process of introducing supplementary foods.

METHODS

AIM

To explore women's experiences of breastfeeding beyond one year of age including: beliefs and motivations regarding breastfeeding beyond infancy; perceptions of support; perceptions of enablers, facilitators and barriers to continued breastfeeding, and the influence of these factors on feeding decisions.

DESIGN AND SETTING

This exploratory, interpretive qualitative study was deemed the most appropriate design to explore decision-making processes, beliefs and experiences (23), and particularly well-suited to researching breastfeeding experiences (24). The study is reported using COREQ guidelines (22) (see Additional File 2). Semi-structured interviews were chosen to better elicit accounts that provided a deep understanding of women's perceptions and their impact upon their behaviour (25). They were favoured over a group data collection approach in order to allow individual narratives to be explored. Interviews were conducted face to face, or via phone or Skype, depending on participant preference and location.

PARTICIPANTS

Participants were women aged at least 18 years currently breastfeeding a child older than one year, or who had done so in the previous five years. Participants were included if able to speak English at conversational level and willing and able to provide informed consent. Given that the social and cultural climate in which breastfeeding occurs has been shown to influence women's experiences (12), only women resident in the UK who had breastfed for an extended period were eligible to participate.

SAMPLING AND RECRUITMENT

A purposive sample using a maximum variation sampling frame (26) including: age; number of children, and longest duration breastfeeding one child was employed. Recruitment adverts were posted through online Facebook breastfeeding support groups. Potential participants were invited to complete an online screening survey, which assessed eligibility and collected data on selected sampling variables to facilitate sample construction. 191 women completed the survey, all of which were eligible. Based on sampling frame variables highlighted above, 30 women were contacted via email with further detailed study information: 27 were willing to take part; three did not respond. Data collection continued to be scheduled until analytic saturation was achieved, defined as the point when no further themes or concepts were surfaced from further interviews. Nineteen interviews contributed to the final dataset from across the UK. Women who were not interviewed were politely informed by email that data was no longer being actively collected. A flowchart of this process is shown in Figure 1.

DATA COLLECTION

Prior to interview, all participants provided informed consent. In the case of telephone or Skype interviews, this was competed electronically. Participants were requested to complete a short demographic questionnaire to facilitate description of the sample (shown in Table 3). Interviews were conducted by AJT (female, medical student, two children). A topic guide was developed, informed by the existing literature on breastfeeding determinants (see Table 1), and used flexibly as a framework for the semi-structured interviews. Analysis occurred concurrently with data collection, allowing iterative updating of the topic guide and coding frame. Open questions were used to facilitate extended answers, and probes to extract further detail. Interviews were conducted either face-to-face

(n=6), via telephone (n=8), or via Skype (n=5), and lasted an average of 45 minutes (range: 28 to 77 minutes). Face-to-face interviews were conducted in the participants' own homes at mutually agreed times. Participants' children or other family members could be present, at participants' discretion. Interviews were digitally audio-recorded with consent, and brief field notes made to aid reflection. All participants were offered a £10 shopping voucher upon interview completion.

Table 1. Sample of discussion guide prompts

Sample prompts for discussion

When you were pregnant with your first baby, what were your thoughts on breastfeeding?

Can you tell me your thoughts on weaning? How did you/do you plan to manage the process?

Why have you chosen/did you choose to continue breastfeeding your child?

How do you feel about nursing in public? Has this changed over time and how?

Can you tell me about support you have had for continuing to breastfeed?

Are you part of any breastfeeding support groups? Why did you join, and what do you get from these groups?

Has anything ever made you consider stopping breastfeeding?

ANALYSIS

Audio-recordings were transcribed verbatim and anonymised, removing any personal identifying information. Transcripts were read repeatedly to enable familiarisation and immersion. Interview transcripts were coded inductively by one of the authors (AJT), facilitated by NVivo version 11 software, and analysed thematically, guided by the Framework Method (see Table 2) (27). Initial codes and themes were discussed and agreed

by two authors (AJT and LLJ), before developing an analytical framework into which subsequent transcripts were charted. Charting produced a highly organised matrix of summarised data, which allowed data to be compared and contrasted whilst retaining the wider context of each case, thereby encouraging thick description. The analytical framework was finalised after extensive discussion between authors.

Table 2. Analysis process (27)

Summary of Framework Approach Analysis Procedure					
Stage 1:	Audio recordings are used to produce a verbatim transcription of the				
Transcription	interview. Since the content is what is of primary interest, clean				
	verbatim transcriptions are sufficient. The transcription process is a				
	good opportunity to begin immersion in the data.				
Stage 2:	Familiarisation with whole interviews using audio-recordings and/or				
Familiarisation	transcripts and any field notes is a vital stage in interpretation. Any				
	initial analytical notes, thoughts or impressions are recorded.				
Stage 3:	Transcripts are read line-by-line, and a label ('code') is applied to each				
Coding	passage which summarises the important messages from that section.				
	Because this study was inductive in nature, an open coding framework				
	was applied i.e. coding anything potentially relevant rather than				
	applying pre-defined codes.				
Stage 4:	When some initial transcripts have been coded, the researcher decides				
Development of	on a set of codes which will then be applied to all subsequent				
analytical	transcripts. Codes can be grouped together into categories or themes.				
framework					
Stage 5:	The working analytical framework is applied to all subsequent				
Application of	transcripts, and is iteratively updated as new codes emerge. In this				
analytical	study NVivo software was used to facilitate this stage.				
framework					

Stage 6:	A matrix is generated using a spreadsheet, and the data from each			
Charting data	transcript are 'charted' into the matrix. Data is summarised by category			
into framework	from each transcript, in a way which reduces the volume of data while			
matrix	still retaining the original meanings and sentiments of the participan			
	Interesting or illustrative quotations are also included in the matrix.			
Step 7:	Gradually, characteristics of the data are identified, and theories or			
Interpretation	models explaining the narrative can be developed.			

RESULTS

19 interviews contributed to the final dataset. Table 3 contains a summary of participants' demographic characteristics.

Table 3: Participant characteristics table

ID	Age (years)	Number of Children	Duration breast- feeding(years)	Currently breast-feeding?	Marital status	Employment status	Highest level of education	Ethnicity
P1	40-49	1	3-4	Yes	Married	Employed – Part-time	Postgraduate	White British
P2	30-39	1	1-2	Yes	Married	Employed – Part-time	Postgraduate	White British
Р3	30-39	2	2-3	No	Married	Employed – Full-time	Postgraduate	White British
P4	30-39	2	3-4	Yes	Married	Student	Postgraduate	White British
P5	30-39	2	2-3	No	Married	Self- employed	Postgraduate	White British
P6	40-49	2	5-6	Yes	Married	Employed – Full-time	Postgraduate	White British
P7	40-49	4	5-6	Yes	Married	Homemaker	Bachelor's degree	White Other
P8	30-39	1	1-2	Yes	Married	Employed – Full-time	Postgraduate	White Other
P9	40-49	1	7-8	Yes	Single	Self- employed	Bachelor's degree	White British
P10	20-29	2	3-4	Yes	Married	Employed – Full-time	Bachelor's degree	White British
P11	30-39	1	3-4	Yes	Co- habiting	Employed – Full-time	Bachelor's degree	White British
P12	20-29	1	1-2	Yes	Co-	Employed –	Bachelor's	White

					habiting	Full-time	degree	British
P13	30-39	3	3-4	Yes	Married	Homemaker	Bachelor's	White
							degree	British
P14	30-39	1	3-4	Yes	Co-	Employed –	A-Level	White
					habiting	Part-time		British
P15	30-39	4	4-5	Yes	Married	Self-	Postgraduate	White
						employed		British
P16	30-39	2	3-4	Yes	Married	Homemaker	Postgraduate	White
								British
P17	20-29	2	5-6	Yes	Single	Homemaker	GCSE	White
								British
P18	30-39	1	2-3	Yes	Married	Employed –	Postgraduate	Asian
						Full-time		British
P19	30-39	1	1-2	Yes	Married	Employed –	Bachelor's	White
						Part-time	degree	British

Three core themes were interpreted within the dataset: (1) Parenting philosophy; (2)

Breastfeeding beliefs; (3) Transition from babyhood to toddlerhood (Figure 2). Exemplar quotations are embedded in the text, and further quotes are available in Additional File 1.

1 PARENTING PHILOSOPHY

1.1 Attachment Parenting Paradigm

Women's parenting styles and choices fell under the theme labelled attachment parenting paradigm (see Discussion for more explanation of this term), and women described their approach as "gentle parenting" (P14) which they felt contributed to their successful breastfeeding relationships. Some women identified themselves as "attachment parents" (P16), while others were unfamiliar with the term but described parenting practices consistent with the philosophy. All women breastfed their children on demand during infancy, all but two regularly co-slept with their children, and all felt it was important to rapidly respond to infant crying: "I've not been one to leave my child crying on their own. Children cry, that's fine, if they're with somebody." (P11). Most women had not intended to

be 'attachment parents' prior to delivery, but instead adopted the approach after the child was born through an instinctive desire to respond to their child's cues and subsequently learned more about the philosophy. Forming a secure attachment with children was identified as being important. Continuing to breastfeed they felt promoted child security and confidence:

"...because they [child] have that closeness with you, security of breastfeeding, they're generally much more comfortable and settled when they're away from you. And we've never had an issue with him going to someone else, he'll quite happily go and play or go and be in a classroom." (P1)

Women felt their chosen parenting style was different but gave their child the self-assurance to be more independent. Participants felt there was a culture of forcing babies to be overly independent at a young age, "the majority of people still cry it out" (P14). They described parents were under social pressure to conform to certain behaviours, such as sleep training. As this mother describes:

"There were so many things that I felt I had to stop, like I had to stop sleeping with the baby, they have to go to their cot, you have to sleep train them." (P14).

Women felt that societal attitudes surrounding infant sleep were particularly unhelpful for breastfeeding mothers, and could damage nursing relationships:

"Health visitors telling you to sleep train your baby that's breastfed because they wake up to feed at night time. It's quite normal for a breastfed child to wake to feed at night."

(P10)

"That's also something that you see in the press and the national health recommendations 'don't co-sleep, don't bedshare'. I think they put the wrong slant on it, because it's such an important part of a successful breastfeeding relationship." (P2)

The women were aware of the link between co-sleeping and SIDS (see Discussion), but most felt that the perceived benefits of co-sleeping outweighed the risk narrative from other sources.

1.2 Child-led Approach

In all aspects of parenting, women emphasized the importance of following the child's cues and allowing the child to do things at their own pace: "I'm very much about letting him do things when he's ready" (P9). For most participants, this philosophy also extended to weaning. Women explained that they continued to breastfeed because their child was not yet ready to stop: "I would have quite happily have stopped two years ago but he's kind of led it, and I've just let him really" (P6). Women generally felt that allowing their child to self-wean was more important than continuing to breastfeed for a specified length of time:

"No one gives you a medal for breastfeeding, but I feel like I'll get one if I can complete his breastfeeding journey on his terms...I feel like I'll give myself one for it." (P10)

2 BREASTFEEDING BELIEFS

2.1 Benefits of Breastfeeding

All the women strongly believed that breastfeeding had been, and continued to be, beneficial for their children in terms of nutrition and bonding. Health benefits were cited as

the most important, including improved long-term health outcomes, and avoidance of short-term illnesses: "Although he got ill when he was a toddler, I do believe his illnesses were shorter and probably less frequent." (P6). Participants also explained that when their children were ill they would often continue nursing even if they refused other foods and liquids, and were reassured that this would provide hydration and antibodies:

"When he is sick he can have my milk and I don't have to worry quite so much about whether he's hydrated and I know that he'll probably get better faster." (P7)

2.2 Biological Norm

A narrative repeatedly expressed was the strong belief that continued breastfeeding is the biological norm: "For me the biggest thing is that it's biologically normal. And it's a normal thing to do. Other cultures see it as normal." (P5). Women believed that by adhering to the practices to which our ancestors were adapted would allow children to achieve their biological potential. Most participants discussed human biological weaning-ages as a justification: "It's the biological norm for us as organisms...they naturally wean when they lose their milk teeth and their jaw shape changes so they can't latch." (P11). Participants also cited traditional societies who continue to breastfeed their child beyond infancy:

"I've read about other societies that children will feed until they get their back molars when they're about 6 or 7" (P4).

Women identified best with the term 'natural-term breastfeeding', explaining that breastfeeding beyond infancy is an aspect of biological heritage. All participants expressed dislike of the term 'extended breastfeeding' because "it makes it sound not-normal" (P18),

and believed that the practice was perceived as 'extended' due to culturally-imposed expectations:

"I believe in natural-term breastfeeding. It's important that people know it's not extended, it's normal!" (P13)

2.3 Sense of Achievement

All participants expressed pride in their breastfeeding and believed it was an important achievement. Paradoxically, successful breastfeeding engendered pride for participants while they simultaneously expressed the belief that breastfeeding was normal and natural. The women rationalized this inconsistency by describing breastfeeding as challenging and therefore that success demonstrated commitment. Some women expressed feelings of failure and guilt due to difficulties conceiving or traumatic births, but felt a sense of redemption having successfully breastfed:

"For me breastfeeding has been healing. I didn't give birth in the way that I wanted to so being able to breastfeed has been a gift. It will be one of my greatest achievements" (P9)

"I think that because I couldn't conceive them [naturally], I couldn't give birth to him naturally...I think it made me more determined to [breast] feed. It was the one thing I could do." (P6)

2.4 Supporting Others

All the women expressed a desire to support other breastfeeding mothers. Many acknowledged having experienced challenges in their own breastfeeding journeys, and felt

they would not have succeeded without support. Most participants reported that "there's a real lack of quality support" (P1), and worried that women are sometimes encouraged to give-up breastfeeding rather than supported to continue. Support was considered particularly important given that many people have mothers and grandmothers who did not breastfeed so: "There's not the natural support that we would traditionally have had in the family" (P11).

Additionally, participants found that conversations around breastfeeding were often a "very difficult discussion" (P1) with new or expectant mothers because their desire to support women could be perceived as pressure or criticism: "It's hard to say without sounding like I'm attacking people who do things differently." (P13). Although the women felt proud of their own breastfeeding achievements and wanted to share their experiences, they described concern that expressing this could be perceived by others as conceited.

3 TRANSITION FROM BABYHOOD TO TODDLERHOOD

3.1 Adjusting Expectations

All of the women had planned to initiate breastfeeding, but had not intended to breastfeed beyond one year at the time of their first pregnancy. Instead, participants re-adjusted their breastfeeding intentions as children grew. Many of the women reported that they had not been aware of the recommendations regarding breastfeeding duration antenatally, and had been unaware it was possible to continue to feed an older child:

"I think it's very ingrained in our society that kids don't breastfeed: Babies wean onto solids and that's the end of it. That's what I thought happened. I didn't realise it [lactation] carried on." (P12)

Moreover, prior to having children, many women felt that breastfeeding an older child was "weird" (P1) or "crazy" (P13), and as such had to overcome their own prejudices as their children grew and continued to breastfeed.

All women had breastfed on demand when their infants were very young, but began to introduce boundaries as their babies became toddlers. The reasons for introducing boundaries varied, but were commonly cited as practical reasons such as encouraging children to sleep for longer stretches, and to avoid the need for nursing outside the home. The women felt it was important that the child could understand these boundaries and therefore rationalise and negotiate to agree mutually acceptable restrictions. Some women night-weaned their children, while others would limit the number or length of feeds. This negotiation process was important in allowing mothers to continue nursing, because continued breastfeeding without restrictions became tiring and impractical:

"He has that little bit more understanding... We now have a limit that there's a time in the evening by which he needs to have milk because I find the later it gets the more uncomfortable. I'm tired, I get fed up, so he's respecting that." (P9)

3.2 Managing Perceived Disapproval

Women described how perceived approval for breastfeeding changed as their child transitioned from 'baby' to 'toddler'. Participants felt pressured to breastfeed when their babies were young, but discouraged as their child grew. Women were criticized for continuing to nurse and were openly questioned by family and co-workers about weaning intentions. The age at which they became aware of this sea change in attitudes varied, but was typically between one and two years. The child's chronological age was a factor in this

attitudinal shift, the child's physical size and developmental abilities were also influential. Milestones perceived as significant in transitioning to 'toddler' were walking and the child being "able to ask for it [breastmilk]" (P11). Participants described being made to feel like an "outcast" (P14) or "outsider" (P17). Although the women felt judged, perceived disapproval was not sufficient to motivate weaning for most women. When asked whether anything had ever made them consider stopping breastfeeding, one participant explained she had struggled to cope with persistent criticism from co-workers:

"I feel very under the microscope since I've come back to work. I've had comments like 'well you're still feeding her, what do you expect? She's still using you as a dummy." (P19)

The women perceived that their decision to breastfeed was not considered private by family members or co-workers, and found their choices being discussed publicly.

3.2.1. *Self-protection strategies*

In response to expressions of disapproval, women developed various self-protection strategies. Some women were open about their ongoing nursing but felt the need to have "scientific research to back it up" (P11) so they could "leap up and defend" (P5) their decisions. Several women felt protected by the WHO recommendation of breastfeeding for two years. However, most women concealed the fact they were breastfeeding an older child. Participants who had previously felt confident to breastfeed in public began to avoid feeding outside of the home:

"I would never feed him in public. I probably didn't feed him in public much after he was two." (P6)

"When I picked her up from nursery she would always want a feed and I didn't just feed her there, I would go and hide somewhere...I didn't even tell the nursery staff I was still breastfeeding" (P16)

Women avoided conversations about nursing and would "keep it quiet" (P12) or lead others to believe their children were weaned:

"You reach a point where other people assume that the child has weaned and there is no reason to correct that assumption...it's just easier for both parties" (P7)

3.2.2. Accessing support

Peer support groups were important for participants to feel "accepted" (P2) and women were comforted "knowing that other people are doing it" (P10). Many women attended inperson support groups, but online groups became increasingly important as children aged. Peer advice was often sought as many women felt unable to seek professional support for fear of disapproval. Participants reported that healthcare professionals (HCPs) advised weaning as a solution to problems: "They're like 'can't they just stop?"" (P10), and several participants reported being offended by comments made by doctors. One participant was asked: "Surely you're not *still* breastfeeding? Are you going to do that until she goes to university?" (P16), and another told that continuing to breastfeed would be detrimental to her child:

"The consultant made some comments about how I should be considering weaning and not feeding my baby anymore because of her age... he told me there were no benefits to breastfeeding beyond two, and he told me that breastfeeding hinders children's development." (P5)

Women perceived that many HCPs were not aware of the benefits of breastfeeding and often anticipated negative responses; they therefore did not trust advice if the provider was perceived as unsupportive.

Participants reported that they developed personal concerns during subsequent pregnancies, including uncertainty about whether nursing during pregnancy is safe, and questions regarding the possibility or practicalities of tandem nursing more than one child. Women sought advice on these topics from peer groups, as there was concern that professionals may have insufficient knowledge to provide support, or offer advice coloured by "opinion rather than evidence" (P5).

3.3 Breastfeeding as a parenting tool

When children became toddlers, women described using breastfeeding as a practical "parenting tool" (P2). Participants explained that breastfeeding was an effective way to calm and "reset" (P1) toddlers, and was useful to "control their behaviour" (P6). Women would offer breastmilk as a "modified cuddle" (P4) if children hurt themselves or became frightened:

"If he does get really upset about something and he can't calm down usually he can settle with having a little bit of milk. So for me it's like this cure all – it's so wonderful; I rely on it quite a lot." (P7)

One participant explained that breastfeeding had helped her child cope with a hospital admission:

"...they had to put a cannula in. I had him facing me while his arm was out, and I nursed him through that because it was so very distressing." (P9)

Many participants also found breastfeeding a useful tool to manage night-waking, and was described as an "easy way to get them back to sleep" (P12).

DISCUSSION

This study explored the experiences of 19 women who breastfed their child beyond one year of age and contributes to the limited, but growing, literature exploring experiences of longer-term breastfeeding. Women in this study actively expressed dislike for the term "extended breastfeeding", which is the label often used to describe the practice of breastfeeding beyond infancy in the academic literature (28) and by HCPs; they identified best with the term "natural-term breastfeeding". Women reported feeling pressured to breastfeed when their babies were young, but equally felt pressured to discontinue as children grew. Most participants were unaware of WHO guidelines for duration of breastfeeding and thought breastfeeding an older child was 'weird' prior to delivery. Women described having to overcome their own prejudices towards breastfeeding older children, and perceived that doing so was considered socially deviant. It was perceived by the women that most HCPs disapprove of breastfeeding beyond infancy, which fostered reluctance to seek advice and support.

Strengths of this study include its relatively large sample size with rich data, and that analytic data saturation was achieved. Due to the potentially sensitive nature of breastfeeding beyond infancy, women are often difficult to identify and access (28). Many

previous studies have recruited via advocacy groups (6,17,29,30); however, these women may be considerably more open about their breastfeeding status and findings may not be transferable to breastfeeding mothers in general. This study used social media as a platform for recruitment, which allowed construction of a maximum variation sample including women of a range of ages, with different numbers of children, and a wide range of breastfeeding duration, thereby increasing transferability. Limitations of the study include that participants were predominantly white and highly educated, however, this may also reflect that this demographic is most likely to breastfeed past infancy (28). As in all qualitative research, researcher position and reflexivity were important considerations. The interviewer (AJT) is a mother of two who has breastfed an older child herself, and therefore it was important to adopt a reflexive approach (31) to mitigate the ways in which this may have inadvertently shaped data collection. The 'insider' (32) position of the interviewer may have been advantageous as participants can be more willing to share their experiences with someone who they perceive to be understanding of their situation (32). In addition, the researcher was equipped with insights to understand implied content, and hence potentially elicit a deeper understanding of the phenomenon (32). An inductive approach to analysis was adopted to ensure that interpreted themes were rooted in the data (33), with a second analyst (LLJ) providing a different stance during interpretation as this researcher had not breastfed beyond infancy.

In line with other studies (19,20,34,35) the decision to continue breastfeeding beyond infancy was shaped by parenting philosophy, and women reported childcare practices consistent with the attachment parenting paradigm. However, this study found that the adoption of this strategy was gradual, and not necessarily held prior to delivery. The

adoption of it occurs as the breastfeeding mother learns to parent, and instinctually follows the cues of her infant, ultimately leading to the re-alignment of parenting beliefs and reinterpretation of health advice. The philosophy holds such importance that the women ultimately adopt subversive and secretive behaviour to continue breastfeeding, which they perceive as necessary to optimally nurture the child. Further, this study found that the philosophy evolved as children grew. Initially it was entirely 'child-led', but as children became able to rationalise and negotiate the women introduced boundaries. This negotiation was important for women to continue, as breastfeeding without boundaries became arduous or impractical. Attachment parenting has its roots in Attachment Theory (36), which posits that a strong emotional and physical connection to at least one primary caregiver is critical to development. The term "attachment parenting" describes a style of parenting which is highly responsive to infant cues (37), and typical behaviours include cosleeping, feeding on demand, extensive carrying and holding of infants, and rapid response to crying (38). Research suggests that this parenting style is associated with enhanced brain and social development, including peer relationships and schooling, and in the longer term more favorable responses to stress (38).

Co-sleeping was believed to be important in establishing a successful nursing relationship, however, co-sleeping and night-feeding are not aligned with contemporary western cultural expectations (28) which value prolonged periods of independent sleep (39). For women who wish to co-sleep, the provision of safe co-sleeping advice may help facilitate establishment and maintenance of successful breastfeeding. It is important to note that there is an association between co-sleeping and sudden infant death syndrome (SIDS)(40,41). The

of this association, but the guidance also states the causes of SIDS are likely to be multifactorial and a possible causality link with co-sleeping is not clearly established (41).

One motivator for breastfeeding beyond infancy which was repeatedly discussed was a strong belief in breastfeeding as a biological norm. This echoes prior studies on longer-term breastfeeding, in which mothers narrated their decisions to continue breastfeeding as "natural" (34) and "evolutionarily appropriate" (19). From an evolutionary perspective, modern human children are adapted to be breastfed for several years (42,43).

Anthropological research estimates that the human biological weaning-age falls between two and seven-and-a-half years of age, if based on physiological parameters alone (42).

Providing education on biological weaning-ages could contribute to normalisation of this behaviour and motivate more women to breastfeed for longer.

Women perceived that breastfeeding an older child was considered socially deviant, and experienced open comments and criticism, mirroring the findings of previous research (6, 17-21, 34). Women also perceived that most HCPs disapprove of, or are uneducated about, breastfeeding beyond infancy, which fostered reluctance to seek advice and support from professionals. Although UK child health records contain documentation to facilitate conversations regarding infant feeding, the last section which formally documents a discussion about breastfeeding occurs during the 9-12-month developmental review. Given that women were hesitant to actively seek support, inclusion of a discussion around breastfeeding at the two-year-review may promote normalcy and afford women a 'safe' opportunity to discuss any issues with a HCP. It may also be prudent for midwives to discuss breastfeeding with multiparous women early during subsequent pregnancies, as women

reported that becoming pregnant again prompted breastfeeding concerns. Assessing the views and knowledge of HCPs about this is an important area for future research, to establish whether additional training or guidance is needed.

CONCLUSION

Enabling optimal breastfeeding duration has potentially enormous health, social and economic advantages (1,2,9). Women experience cultural and social barriers to breastfeeding their children beyond infancy, which may compel women to conceal the behaviour. Moreover, women are reluctant to seek support from HCPs due to fear of judgement or pressure to wean. HCPs should be aware of the benefits of optimal duration breastfeeding, and be mindful of their terminology when consulting with women, for example, using language such as "natural-term breastfeeding" rather than "extended breastfeeding". Inclusion of a breastfeeding section, to facilitate formal documentation, at the two-year-review may promote normalcy and afford women a 'safe' window of opportunity to discuss potential issues. Education regarding biological weaning-ages and promotion of WHO guidelines for minimum breastfeeding duration may encourage more women to breastfeed for longer. As well as promoting natural-term breastfeeding to mothers, education targeting the public and HCPs is necessary to encourage normalisation and acceptance.

LIST OF ABBREVIATIONS

CYPHS: Children and Young People's Health Services

HCP: Healthcare professional

IFS: Infant Feeding Survey

MSDS: Maternity Services Data Set

NICE: National Institute of Clinical Excellence

NHS: National Health Service

SIDS: Sudden Infant Death Syndrome

WHO: World Health Organisation

DECLARATIONS

Ethics approval and consent to participate: Ethical approval was sought and a favourable decision obtained from the University of Birmingham Internal Ethics Review Committee (ref: IREC2017/1319061). All participants provided informed consent prior to participation.

Consent for publication: Not applicable.

Availability of data and material: The datasets generated and analysed during the current study are not publicly available due to the risk of compromising the individual privacy of participants, but are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

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Patient and public involvement: There were no funds or time allocated for PPI so we were unable to involve patients. We have invited patients to help us develop our dissemination strategy.

Author contributions: AJT conceived the study and designed it in collaboration with LLJ. AJT conducted and transcribed the interviews. Data were coded by AJT. All authors contributed to analysis and interpretation. Initial drafts of the manuscript were written by AJT, which

were reviewed and edited by LLJ and AET. All authors have read and approved the final manuscript.

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FIGURE TITLES

Figure 1. Flowchart summary of recruitment and sampling process

Figure 2. Schematic representation of themes

ADDITIONAL FILES

Additional file 1

Word document file (.docx)

Title: Supplementary Quotes Table

Description: Provides additional quotations to support themes

- Additional file 2

Word document file (.docx)

Title: COREQ Checklist

Description: Reports page numbers for each COREQ reporting criteria

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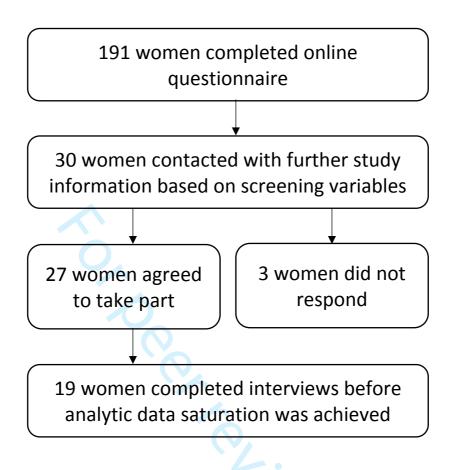
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Parenting philosophy

- Attachment parenting paradigm
- · Child-led approach
- · Benefits of breastfeeding
- Biological norm
- · Sense of achievement
- Supporting others

Transition from babyhood to toddlerhood

- · Adjusting expectations
- Managing perceived disapproval
- Breastfeeding as a parenting tool
- → Self-protection strategies
- Importance of peer support

Breastfeeding beliefs

ADDITIONAL FILE 1

Theme	Sub-Theme	Quote	Participant
Parenting	Attachment	"My daughter was very demanding and quite communicative even as a newbornShe told us	16
Philosophy	parenting	what she wanted and what she wanted was for us to be attachment parents, basically. That	
	paradigm	was not something I went into parenting thinking. I had no particular opinions on co-sleeping	
		or anything else, really. It's just she slept better in bed with us so she slept in bed with us. She	
		wanted to be on the breast so I put her on the breast. She didn't like the buggy, so I had her	
		in a sling. I would find it hard to imagine that somebody who did extended breastfeeding	
		never ever coslept or never baby carried, but it's entirely possible I suppose."	
		"I intended to follow the attachment parenting route, so I've kind of done that, but I have	9
		made different decisions along the way, or not made decisions and let him lead it more than I	
		thought I would have done."	
		"When we were running around in caves we didn't put our babies in cots in the next room,	6
		our babies were next to us because that's where they feel safe."	
	Child-led	"We've carried on because it seems to be important to him."	10
	approach	. 612	
		"If she wants to carry on I'm not going to cause her anxiety and stress by saying 'oh no you	12
		can't do that'. Obviously, I do every now and then, I have to distract her but I'm not going to	
		wean her intentionally when that's what she wants."	
		"It also didn't sit well with me emotionally, to force her into these things that didn't seem	16
		right for her. Her one comfort was breastfeeding. That was the thing that worked for her."	
		"I have no intention of stopping until he wants to stop."	2
Breastfeeding	Benefits of	"Anything that he needs at that moment, my milk is going to change to his needs. And if I get	18
Beliefs	breastfeeding	a cold, the antibodies will get passed through to him."	
		"The main one in our house at the moment is the immunity because we have had continuous	10
		bugs in our house since the smallest one has been born, so I wonder where we would be if we	
		didn't have that. And I know that that doesn't dissipate no matter what the age of the child,	
		so I don't want to give that up."	

	"When my child is sick, that's the best time. That's the best reassurance of knowing that I'm doing the best thing for him. Because he won't eat anything else, not keeping anything else down, or if he's lethargic, you know that they're getting their vitamins and that's the best feeling in the world."	14		
	"Some days my mum will say I offered her this but she didn't have that, she did have a bit of cake or banana or yogurt, so sometimes nothing savory, but I know that at least at the start and the end of the day she's getting that goodness from me. That's a real plus point for still	19		
	"For me it wasn't really about nutrition, although certainly there are nutritional benefits, but it was more about health benefits, bonding, the parenting tool which you can't get from cow's milk because it's not the same thing."	15		
Biological norm	"Just that it is biologically normal. That's the main reason for feeding. We are mammals, and mammals are designed to feed their children. Evolution would tell you that that's what is best for them."			
	"And the more I learned about how babies are, and about the breastfeeding dyad, and breastfeeding from an evolutionary perspective, baby brain and physical development, it just really made me realise the importance of breastfeeding as opposed to other feeding methods."	5		
	"I never thought this would be something I'd do, but when I looked into the fact that it is biologically normally, I decided to, why not? And it's worked out for us."	15		
Sense of achievement	"My choice is to breastfeed my baby. Every other choice about my birth had been taken away from me – and that's okay because we came out of it alive and that's the main thing – but I was so determined not to lose thisFor me, it's this amazing achievement"			
	"I feel lucky that I was able to breastfeed because I had a very difficult birth and my birth was not how I wanted it to be. For me, being able to breastfeed has been a gift to my child. And for me breastfeeding has been healing. I didn't give birth in the way that I wanted to so being able to breastfeed has been a gift. It will be one of my greatest achievements and one of the greatest gifts that I could give to my son in lots of ways; health, emotionally that's why I want it to end well. I want it to be something that is beautiful."	9		

	Supporting	"I needed breastfeeding counsellors coming to home to show me things. It's all very well	13
	others	saying oh well go out to a group, but at first it took me 10 days to leave the house and even	
		them I was like oh my god, what am I doing? I want people coming to my house to help me	
		and reassure that it's okay. Because we've lost all that. We've lost seeing other people feed. I	
		think there should be way more support than there is."	
		"I think the more help there is to enable people to breastfeed then the better it will be.	14
		Which is why I do what I do and spend so much time helping mums, giving advice, approving	
		posts, become a peer support worker, because when I started I didn't even know I could go to	
		a breastfeeding group, which I think would've really helped me and I might have made more	
		friends with mums that are actually still breastfeeding"	
		"It just made me really want to support people, breastfeeding made me feel good so I just	5
		want to see more support for other women."	
Transition	Adjusting	"I thought he would wean when we started solids, and then I thought he would wean when I	10
from	expectations	went back to work – convinced he was going to wean when I went back to work because I	
Babyhood to		was doing night shifts. Then I was convinced he would wean when he started walking,	
Toddlerhood		because that was delayed. Then – when was the next time? – when I got pregnant. But he	
		didn't, and then I gave up thinking he would wean after that."	
		"It's good to see that people are going for longer and feeding for longer, because I didn't	12
		presume it happened to be honest. You never really see it so I didn't know the time that	
		you're supposed to breastfeed for."	
		"I wanted to manage 6 weeks because I thought that was what people did, and then babies	4
		have bottles. The same way that babies wear nappies, babies have bottles."	
	Managing	"It seems like past a year, then people are like 'what are you doing? They can have cow's	10
	perceived	milk. Why would you bother?"	
	disapproval		
		"There are so many people that would say that it's weird and what are you doing. And 'why	11
		hasn't he weaned, is there something wrong?'"	
		"I didn't want to feed in public. And when she was around 2 and having these tantrums I	16
		knew that breastfeeding would calm her down but I didn't want to do it and I was very self-	
		conscious of that and I would get more stressed and she would get stressed."	

Self- protection	"But the toddler, I don't do it [breastfeed] out in public. I annoy myself by not doing it out in public, because you don't see people doing it out in public, so it's not normalised, and I'm	4
strategies	perpetuating this."	
	"I find myself using really apologetic language about it. And I have to sort of justify it."	19
	"I think once we got to the age of 1 you start to feel like you need to have the science to back it up."	1
Accessing	"There was a breastfeeding class, not a class, a support group But when my daughter got to	12
support	a year old I realised that she was the oldest baby there, and people have given up a long time	12
зарроге	before. So I realised I was a bit of an outlier in terms of the duration but I am involved in a lot	
	of breastfeeding groups on Facebook. I think you need that support."	
	"Having a network and a group of other women who have gone through it, peer supporters	6
	and that, that's a really important factor. Finding that group of people that share your views	Ü
	on breastfeeding. Without that, it would be a fairly lonely experience. I've made friends	
	through breastfeeding that I still meet up with now."	
	"I hear from a lot of mums that they are being told to stop night feeds by the health visitors	5
	and I think there's a lot of opinion rather than evidence-based information out there. I see it	
	as a big factor."	
Breastfeeding	"If he's scared, that's the first place he goes and he calms down like that. If he's upset, he'll	2
as a	have literally 20 seconds if that – it's the best parenting tool I've ever had."	
parenting		
tool		
	"To cure all problems – whether she's warm or whether she's cold or whether she's thirsty or	12
	whether she's just feeling a bit insecure or just needs a cuddle, you know that there's one	
	thing that fixes everything. Rather than having to do a checklist of saying well check her	
	temperature, change the outfit, put her in the bath, or whatever, and having to go through	
	the checklist and wonder what could possibly be wrong, it fixes everything."	
	"It certainly makes life with a toddler so much easier if they fall down and scrape their knee	7
	or are scared about a situation or something it was so easy to have them nurse for a few	
	seconds and them they're back to being happy"	

ADDITIONAL FILE 2

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Developed from:

Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health C. 2007; 19(6): 349–357. http://dx.doi.org/10.1093/intqhc/mzm042

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research te	am reflexi	vity	•
Personal characteristic	s		
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	8
Credentials	2	What were the researcher's credentials?	8
Occupation	3	What was their occupation at the time of the study?	8
Gender	4	Was the researcher male or female?	8
Experience and training	5	What experience or training did the researcher have?	8
Relationship with parti	cipants	<u></u>	
Relationship established	6	Was a relationship established prior to study commencement?	23
Participant 7 knowledge of the interviewer		What did the participants know about the researcher? E.g. personal goals, reasons for doing the research	23
Interviewer characteristics	8	What characteristics were reported about the interviewer? E.g. bias, assumptions, reasons and interests in the research topic	8, 23
Domain 2: Study desig	n	0,	
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was used to underpin the study? E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	7
Participant selection			
Sampling 10		How were participants selected? E.g. purposive, convenience, consecutive, snowball	8
Method of approach	11	How were participants approached? E.g. face-to-face, telephone, mail, email	8
Sample size 12		How many participants were in the study?	8
Non-participation	13	How many people refused to participate or dropped out? Reasons?	8

Setting			
Setting of data	14	Where was the data collected? E.g. home,	8,9
collection		clinic, workplace	
Presence of non-	15	Was anyone else present besides the	9
participants		participants and researchers?	
Description of sample	16	What are the important characteristics of	11 (table
		the sample? E.g. demographic data	3)
Data collection	1		1 - 7
Interview guide	17	Were questions, prompts, guides provided	9 (table
miter trem games		by the authors? Was it pilot tested?	1)
Repeat interviews	18	Were repeat interviews carried out? If yes,	N/A
repeat interviews	10	how many?	14/7
Audio/visual	19	Did the research use audio or visual	9
recording	19	recording to collect the data?	
Field notes	20	Were field notes made during and/or after	9
rieiu iiotes	20		9
Duration	21	the interview or focus group? What was the duration of the interviews or	8
Duration	21		0
Data astronation	22	focus group?	0
Data saturation	22	Was data saturation discussed?	8
Transcripts returned	23	Were transcripts returned to participants	N/A
		for comment and/or correction?	
Domain 3: analysis and	tindings		
Data analysis	I -		T -
Number of data	24	How many data coders coded the data?	9
coders			
Description of the	25	Did authors provide a description of the	N/A
coding tree		coding tree?	
Derivation of themes	26	Were themes identified in advance or	7
		derived from the data?	
Software	27	What software, if applicable, was used to	9
		manage the data?	
Participant checking	28	Did participants provide feedback on the	N/A
		findings?	
Reporting			
Quotations presented	29	Were participant quotations presented to	12-21
		illustrate the themes/findings? Was each	
		quotation identified? E.g. participant	
		number	
Data and findings	30	Was there consistency between the data	12-21
consistent		presented and the findings?	
Clarity of major	31	Were major themes clearly presented in	12-21
themes		the findings?	
Clarity of minor	32	Is there a description of diverse cases or	12-21
themes		discussion of minor themes?	

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TITLE PAGE

"Surely you're not still breastfeeding":

A qualitative exploration of women's experiences of breastfeeding beyond infancy in the United Kingdom

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ABSTRACT

Objectives: To explore women's experiences of breastfeeding beyond infancy (>1 year). Understanding these experiences, including the motivators, enablers and barriers faced, may help inform future strategies to support and facilitate mothers to breastfeed for an optimal duration.

Design: An exploratory qualitative study using an interpretive approach. Nineteen semi-structured interviews were conducted (in-person, or via phone or Skype), transcribed and thematically analysed using the Framework Method.

Setting: Participants drawn from across the United Kingdom through online breastfeeding support groups.

Participants: Maximum variation sample of women currently breastfeeding a child older than one year, or who had done so in the previous five years. Participants were included if over 18, able to speak English at conversational level and resident in the UK.

Results: The findings offer insights into the challenges faced by women breastfeeding older children, including perceived social and cultural barriers. Three core themes were interpreted: (1) Parenting philosophy; (2) Breastfeeding beliefs; (3) Transition from babyhood to toddlerhood. Women had not intended to breastfeed beyond infancy prior to delivery, but developed a 'child-led' approach to parenting and internalised strong beliefs that breastfeeding is the biological norm. Women perceived a negative shift in approval for continued breastfeeding as their child transitioned from 'baby' to 'toddler'. This compelled woman to conceal breastfeeding and fostered a reluctance to seek advice from healthcare professionals. Mothers reported feeling pressured to breastfeed when their babies were young, but discouraged as children grew. They identified best with the term "natural-term breastfeeding".

Conclusions: This study suggests that providing antenatal education regarding biological weaning-ages and promotion of guidelines for optimum breastfeeding duration may encourage more women to breastfeed for longer. Promoting the concept of natural-term breastfeeding to mothers, and healthcare professionals, employers and the public is necessary to normalise and encourage acceptance of breastfeeding beyond infancy.

KEYWORDS

Breastfeeding; Lactation; Social Stigma; Social Support; natural-term breastfeeding; Qualitative Research

STRENGTHS AND LIMITATIONS OF THIS STUDY

- This interpretive, exploratory qualitative study contributes to the growing, but limited, literature on longer-term breastfeeding and identifies some potential practical solutions which may support women to breastfeed for an optimal duration.
- Due to the potentially sensitive nature of the topic, it can be difficult to identify and
 access breastfeeding women; however, this study used social media as a platform
 for recruitment, which allowed construction of a maximum variation sample,
 thereby increasing transferability.
- This study has a relatively large sample size with rich data, and analytic data saturation was achieved.
- Participants were predominantly white and highly educated, which could limit transferability, however, this may also reflect that this demographic is most likely to breastfeed past infancy.
- One of the authors has breastfed an older child, so a reflexive approach was
 important to mitigate the ways in which this may have inadvertently shaped data
 collection; a second analyst provided a different stance.

MAIN TEXT

INTRODUCTION

The fundamental importance of breastfeeding to the health and development of children is well established (1). The Lancet Breastfeeding Series synthesises comprehensive evidence demonstrating that breastfeeding offers the best nutritional start for infants, conferring short-term benefits such as lower infectious morbidity and mortality, as well as life-long protection against obesity and diabetes mellitus (1, 2). Mothers who breastfeed also benefit from reduced risk of breast cancer, and potentially ovarian cancer and diabetes (1).

The World Health Organization (WHO) currently recommends that infants in all settings should be exclusively breastfed until six months of age, after which they should receive nutritious complementary foods alongside continued breastfeeding for two years or beyond (3). However, it is important to highlight that the WHO recommendation lacks clarity regarding the duration for which the benefits of breastfeeding are sustained beyond 24 months.

Significant efforts have been made to promote breastfeeding, often focused on educating new and expectant mothers regarding benefits of breastfeeding (4), which to some extent have been successful. The last national Infant Feeding Survey (IFS) was conducted in 2010, and the results showed that 81% of babies born in the UK were breastfed at birth (5). However, that proportion fell sharply: at six months postpartum, the proportion of mothers exclusively breastfeeding was around 1%, and only 25% of infants were still receiving any breastmilk (5). Breastfeeding status after six months was not recorded and so it is difficult to estimate breastfeeding rates beyond this (6). The IFS has now been discontinued, and data

relating to breastfeeding initiation in England is captured and reported by NHS Digital via the Maternity Services Data Set (MSDS), and breastfeeding status at 6-8 weeks through the Children and Young People's Health Services (CYPHS) Data Set (7). As such, more recent data on breastfeeding rates at six months is unavailable. However, in 2018 Scotland published the results of its Maternal and Infant Nutrition Survey, in which 43% of respondents reported providing breastmilk to their infants at six months (8), although no data were provided about exclusive breastfeeding at six months. These data suggest that more women are breastfeeding and for longer. It is therefore important to understand the experiences and needs of these mothers who continue breast feeding beyond six months.

A recent large meta-analysis determined that breastfeeding should continue until at least two years to achieve its full effect (1). Protection from infectious diseases has been shown to persist into at least the second year of life, and longer breastfeeding durations were associated with a higher Intelligence Quotient (IQ), and a lower risk of obesity in the long-term (1,2). Additionally, fostering optimal breastfeeding duration has economic advantages, both in terms of reducing healthcare expenditure through decreasing infant morbidity and mortality (9), and increasing children's educational potential and likely future earnings, while simultaneously promoting social equity (10).

Almost all women are biologically able to breastfeed, except for those with a (very) few limiting medical disorders (11). Whilst initiation rates are high (5), most women discontinue much earlier than recommendations advise. It has been suggested that once breastfeeding has been established, one of the main factors influencing breastfeeding duration is the social environment in which breastfeeding occurs (12), with a wide range of social, cultural

and market factors shaping decisions to continue, or persist (13). Research has found that worries about breastfeeding in public are prevalent (14), and negative reactions from others, and the feelings invoked by those reactions, contribute to decisions about how long to breastfeed (15). Previous qualitative research with breastfeeding mothers has found that many receive persistent, unsolicited advice about the need to wean and are encouraged to discontinue from nursing "too long" (4). Breastfeeding behaviours are, it seems, open to public evaluation, commented upon and criticised by family, friends, and strangers (16), resulting in stigma and social sanctioning (4,17). Whilst a substantial body of qualitative research exists examining women's breastfeeding experiences there are relatively fewer studies that have explored experiences of breastfeeding beyond six months (18). The small number of more recent studies have found that women nursing older children feel highly scrutinized (19), frequently face negative attitudes and criticism from others (18-21), and experience marginalization (19).

Building on this limited literature, this interpretive qualitative study aims to focus explicitly on women's experiences of breastfeeding beyond infancy (> 1 year of age). Understanding women's experiences, including the motivators, enablers and barriers faced, may help inform future strategies to support and facilitate mothers to breastfeed for an optimal or 'natural-term' duration. Throughout the paper, the term "weaning" is used to describe the process of stopping breastfeeding and is distinct from the process of introducing supplementary foods.

METHODS

ETHICS

Ethical approval was sought and a favourable decision obtained from the University of Birmingham Internal Ethics Review Committee (ref: IREC2017/1319061).

AIM

To explore women's experiences of breastfeeding beyond one year of age including: beliefs and motivations regarding breastfeeding beyond infancy; perceptions of support; perceptions of enablers, facilitators and barriers to continued breastfeeding, and the influence of these factors on feeding decisions.

DESIGN AND SETTING

This exploratory, interpretive qualitative study was deemed the most appropriate design to explore decision-making processes, beliefs and experiences (22), and particularly well-suited to researching breastfeeding experiences (23). The study is reported using COREQ guidelines (24) (see Additional File 1). Semi-structured interviews were chosen to better elicit accounts that provided a deep understanding of women's perceptions and their impact upon their behaviour (25). They were favoured over a group data collection approach in order to allow individual narratives to be explored. Interviews were conducted face to face, or via phone or Skype, depending on participant preference and location so as not to limit participation due to geographical location or cost.

PARTICIPANTS

Participants were women aged at least 18 years currently breastfeeding a child older than one year, or who had done so in the previous five years. Participants were included if able to speak English at conversational level and willing and able to provide informed consent.

Given that the social and cultural climate in which breastfeeding occurs has been shown to influence women's experiences (12), only women resident in the UK who had breastfed for an extended period were eligible to participate.

SAMPLING AND RECRUITMENT

A purposive sample using a maximum variation sampling frame (26) including: age; number of children, and longest duration breastfeeding one child was employed. Recruitment adverts were posted through online Facebook breastfeeding support groups. Potential participants were invited to complete an online screening survey, which assessed eligibility and collected data on selected sampling variables to facilitate sample construction. 191 women completed the survey, all of which were eligible. Based on sampling frame variables highlighted above, 30 women were contacted via email with further detailed study information: 27 were willing to take part; three did not respond. Data collection continued to be scheduled until analytic saturation was achieved, defined as the point when no further themes or concepts were surfaced from further interviews (27). Nineteen interviews contributed to the final dataset from across the UK. Women who were not interviewed were politely informed by email that data was no longer being actively collected. A flowchart of this process is shown in Figure 1.

DATA COLLECTION

Prior to interview, all participants provided informed consent. In the case of telephone or Skype interviews, this was competed electronically. Participants were requested to complete a short demographic questionnaire to facilitate description of the sample (see Results). Interviews were conducted by AJT (female, two children). A topic guide was

developed, informed by the existing literature on breastfeeding determinants (see Table 1), and used flexibly as a framework for the semi-structured interviews. Analysis occurred concurrently with data collection, allowing iterative updating of the topic guide and coding frame. Open questions were used to facilitate extended answers, and probes to extract further detail. Interviews were conducted either face-to-face (n=6), via telephone (n=8), or via Skype (n=5), and lasted an average of 45 minutes (range: 28 to 77 minutes). Face-to-face interviews were conducted in the participants' own homes at mutually agreed times.

Participants' children or other family members could be present, at participants' discretion. Interviews were digitally audio-recorded with consent, and brief field notes made to aid reflection. All participants were offered a £10 shopping voucher upon interview completion.

Table 1. Sample of discussion guide prompts

Sample prompts for discussion

When you were pregnant with your first baby, what were your thoughts on breastfeeding?

Can you tell me your thoughts on weaning? How did you/do you plan to manage the process?

Why have you chosen/did you choose to continue breastfeeding your child?

How do you feel about nursing in public? Has this changed over time and how?

Can you tell me about support you have had for continuing to breastfeed?

Are you part of any breastfeeding support groups? Why did you join, and what do you get from these groups?

Has anything ever made you consider stopping breastfeeding?

ANALYSIS

Audio-recordings were transcribed verbatim and anonymised, removing any personal identifying information. Transcripts were read repeatedly to enable familiarisation and immersion. Interview transcripts were coded inductively by one of the authors (AJT), facilitated by NVivo version 11 software, and analysed thematically, guided by the Framework Method (see Table 2) (28). Initial codes and themes were discussed and agreed by two authors (AJT and LLJ), before developing an analytical framework into which subsequent transcripts were charted. Charting produced a highly organised matrix of summarised data, which allowed data to be compared and contrasted whilst retaining the wider context of each case, thereby encouraging thick description. The analytical framework was finalised after extensive discussion between authors.

Table 2. Analysis process

Summary of Fra	Summary of Framework Approach Analysis Procedure							
Stage 1:	Audio recordings are used to produce a verbatim transcription of the							
Transcription	interview. Since the content is what is of primary interest, clean							
	verbatim transcriptions are sufficient. The transcription process is a							
	good opportunity to begin immersion in the data.							
Stage 2:	Familiarisation with whole interviews using audio-recordings and/or							
Familiarisation	transcripts and any field notes is a vital stage in interpretation. Any							
	initial analytical notes, thoughts or impressions are recorded.							
Stage 3:	Transcripts are read line-by-line, and a label ('code') is applied to each							
Coding	passage which summarises the important messages from that section.							
	Because this study was inductive in nature, an open coding framework							
	was applied i.e. coding anything potentially relevant rather than							
	applying pre-defined codes.							

Stage 4:	When some initial transcripts have been coded, the researcher decides
Development of	on a set of codes which will then be applied to all subsequent
analytical	transcripts. Codes can be grouped together into categories or themes.
framework	
Stage 5:	The working analytical framework is applied to all subsequent
Application of	transcripts, and is iteratively updated as new codes emerge. In this
analytical	study NVivo software was used to facilitate this stage.
framework	
Stage 6:	A matrix is generated using a spreadsheet, and the data from each
Charting data	transcript are 'charted' into the matrix. Data is summarised by category
into framework	from each transcript, in a way which reduces the volume of data while
matrix	still retaining the original meanings and sentiments of the participant.
	Interesting or illustrative quotations are also included in the matrix.
Step 7:	Gradually, characteristics of the data are identified, and theories or
Interpretation	models explaining the narrative can be developed.

PATIENT AND PUBLIC INVOLVEMENT

There were no funds or time allocated for PPI so we were unable to involve patients. We have invited patients to help us develop our dissemination strategy.

RESULTS

19 interviews contributed to the final dataset. Table 3 contains a summary of participants' demographic characteristics.

Table 3: Participant characteristics table

ID	Age (years)	Number of Children	Duration breast- feeding(years)	Currently breast-feeding?	Marital status	Employment status	Highest level of education	Ethnicity
P1	40-49	1	3-4	Yes	Married	Employed –	Postgraduate	White
						Part-time		British

P2	30-39	1	1-2	Yes	Married	Employed –	Postgraduate	White
						Part-time		British
Р3	30-39	2	2-3	No	Married	Employed –	Postgraduate	White
						Full-time		British
P4	30-39	2	3-4	Yes	Married	Student	Postgraduate	White
								British
P5	30-39	2	2-3	No	Married	Self-	Postgraduate	White
						employed		British
P6	40-49	2	5-6	Yes	Married	Employed –	Postgraduate	White
						Full-time		British
P7	40-49	4	5-6	Yes	Married	Homemaker	Bachelor's	White
							degree	Other
P8	30-39	1	1-2	Yes	Married	Employed –	Postgraduate	White
						Full-time		Other
Р9	40-49	1	7-8	Yes	Single	Self-	Bachelor's	White
						employed	degree	British
P10	20-29	2	3-4	Yes	Married	Employed –	Bachelor's	White
						Full-time	degree	British
P11	30-39	1	3-4	Yes	Co-	Employed –	Bachelor's	White
					habiting	Full-time	degree	British
P12	20-29	1	1-2	Yes	Co-	Employed –	Bachelor's	White
					habiting	Full-time	degree	British
P13	30-39	3	3-4	Yes	Married	Homemaker	Bachelor's	White
							degree	British
P14	30-39	1	3-4	Yes	Co-	Employed –	A-Level	White
					habiting	Part-time		British
P15	30-39	4	4-5	Yes	Married	Self-	Postgraduate	White
						employed		British
P16	30-39	2	3-4	Yes	Married	Homemaker	Postgraduate	White
								British
P17	20-29	2	5-6	Yes	Single	Homemaker	GCSE	White
								British
P18	30-39	1	2-3	Yes	Married	Employed –	Postgraduate	Asian
						Full-time		British
P19	30-39	1	1-2	Yes	Married	Employed –	Bachelor's	White
						Part-time	degree	British

Three core themes were interpreted within the dataset: (1) Parenting philosophy; (2)

Breastfeeding beliefs; (3) Transition from babyhood to toddlerhood (Figure 2). Exemplar quotations are embedded in the text, and further quotes are available in Additional File 2.

1 PARENTING PHILOSOPHY

1.1 Attachment Parenting Paradigm

Women's parenting styles and choices fell under the theme labelled attachment parenting paradigm (see Discussion for more explanation of this term), and women described their approach as "gentle parenting" (P14) which they felt contributed to their successful breastfeeding relationships. Some women identified themselves as "attachment parents" (P16), while others were unfamiliar with the term but described parenting practices consistent with the philosophy. All women breastfed their children on demand during infancy, all but two regularly co-slept with their children, and all felt it was important to rapidly respond to infant crying: "I've not been one to leave my child crying on their own. Children cry, that's fine, if they're with somebody." (P11). Most women had not intended to be 'attachment parents' prior to delivery, but instead adopted the approach after the child was born through an instinctive desire to respond to their child's cues and subsequently learned more about the philosophy. Forming a secure attachment with children was identified as being important. Continuing to breastfeed they felt promoted child security and confidence:

"...because they [child] have that closeness with you, security of breastfeeding, they're generally much more comfortable and settled when they're away from you. And we've never had an issue with him going to someone else, he'll quite happily go and play or go and be in a classroom." (P1)

Women felt their chosen parenting style was different but gave their child the selfassurance to be more independent. Participants felt there was a culture of forcing babies to be overly independent at a young age, "the majority of people still cry it out" (P14). They described parents were under social pressure to conform to certain behaviours, such as sleep training. As this mother describes:

"There were so many things that I felt I had to stop, like I had to stop sleeping with the baby, they have to go to their cot, you have to sleep train them." (P14).

Women felt that societal attitudes surrounding infant sleep were particularly unhelpful for breastfeeding mothers, and could damage nursing relationships:

"Health visitors telling you to sleep train your baby that's breastfed because they wake up to feed at night time. It's quite normal for a breastfed child to wake to feed at night."

(P10)

"That's also something that you see in the press and the national health recommendations 'don't co-sleep, don't bedshare'. I think they put the wrong slant on it, because it's such an important part of a successful breastfeeding relationship." (P2)

The women were aware of the link between co-sleeping and SIDS (see Discussion), but most felt that the perceived benefits of co-sleeping outweighed the risk narrative from other sources.

1.2 Child-led Approach

In all aspects of parenting, women emphasized the importance of following the child's cues and allowing the child to do things at their own pace: "I'm very much about letting him do things when he's ready" (P9). For most participants, this philosophy also extended to weaning. Women explained that they continued to breastfeed because their child was not yet ready to stop: "I would have quite happily have stopped two years ago but he's kind of

led it, and I've just let him really" (P6). Women generally felt that allowing their child to selfwean was more important than continuing to breastfeed for a specified length of time:

"No one gives you a medal for breastfeeding, but I feel like I'll get one if I can complete his breastfeeding journey on his terms...I feel like I'll give myself one for it." (P10)

2 BREASTFEEDING BELIEFS

2.1 Benefits of Breastfeeding

All the women strongly believed that breastfeeding had been, and continued to be, beneficial for their children in terms of nutrition and bonding. Health benefits were cited as the most important, including improved long-term health outcomes, and avoidance of short-term illnesses: "Although he got ill when he was a toddler, I do believe his illnesses were shorter and probably less frequent." (P6). Participants also explained that when their children were ill they would often continue nursing even if they refused other foods and liquids, and were reassured that this would provide hydration and antibodies:

"When he is sick he can have my milk and I don't have to worry quite so much about whether he's hydrated and I know that he'll probably get better faster." (P7)

2.2 Biological Norm

A narrative repeatedly expressed was the strong belief that continued breastfeeding is the biological norm: "For me the biggest thing is that it's biologically normal. And it's a normal thing to do. Other cultures see it as normal." (P5). Women believed that by adhering to the practices to which our ancestors were adapted would allow children to achieve their biological potential. Most participants discussed human biological weaning-ages as a

justification: "It's the biological norm for us as organisms...they naturally wean when they lose their milk teeth and their jaw shape changes so they can't latch." (P11). Participants also cited traditional societies who continue to breastfeed their child beyond infancy:

"I've read about other societies that children will feed until they get their back molars when they're about 6 or 7" (P4).

Women identified best with the term 'natural-term breastfeeding', explaining that breastfeeding beyond infancy is an aspect of biological heritage. All participants expressed dislike of the term 'extended breastfeeding' because "it makes it sound not-normal" (P18), and believed that the practice was perceived as 'extended' due to culturally-imposed expectations:

"I believe in natural-term breastfeeding. It's important that people know it's not extended, it's normal!" (P13)

2.3 Sense of Achievement

All participants expressed pride in their breastfeeding and believed it was an important achievement. Paradoxically, successful breastfeeding engendered pride for participants while they simultaneously expressed the belief that breastfeeding was normal and natural. The women rationalized this inconsistency by describing breastfeeding as challenging and therefore that success demonstrated commitment. Some women expressed feelings of failure and guilt due to difficulties conceiving or traumatic births, but felt a sense of redemption having successfully breastfed:

"For me breastfeeding has been healing. I didn't give birth in the way that I wanted to so being able to breastfeed has been a gift. It will be one of my greatest achievements" (P9)

"I think that because I couldn't conceive them [naturally], I couldn't give birth to him naturally...I think it made me more determined to [breast] feed. It was the one thing I could do." (P6)

2.4 Supporting Others

All the women expressed a desire to support other breastfeeding mothers. Many acknowledged having experienced challenges in their own breastfeeding journeys, and felt they would not have succeeded without support. Most participants reported that "there's a real lack of quality support" (P1), and worried that women are sometimes encouraged to give-up breastfeeding rather than supported to continue. Support was considered particularly important given that many people have mothers and grandmothers who did not breastfeed so: "There's not the natural support that we would traditionally have had in the family" (P11).

Additionally, participants found that conversations around breastfeeding were often a "very difficult discussion" (P1) with new or expectant mothers because their desire to support women could be perceived as pressure or criticism: "It's hard to say without sounding like I'm attacking people who do things differently." (P13). Although the women felt proud of their own breastfeeding achievements and wanted to share their experiences, they described concern that expressing this could be perceived by others as conceited.

3 TRANSITION FROM BABYHOOD TO TODDLERHOOD

3.1 Adjusting Expectations

All of the women had planned to initiate breastfeeding, but had not intended to breastfeed beyond one year at the time of their first pregnancy. Instead, participants re-adjusted their breastfeeding intentions as children grew. Many of the women reported that they had not been aware of the recommendations regarding breastfeeding duration antenatally, and had been unaware it was possible to continue to feed an older child:

"I think it's very ingrained in our society that kids don't breastfeed: Babies wean onto solids and that's the end of it. That's what I thought happened. I didn't realise it [lactation] carried on." (P12)

Moreover, prior to having children, many women felt that breastfeeding an older child was "weird" (P1) or "crazy" (P13), and as such had to overcome their own prejudices as their children grew and continued to breastfeed.

All women had breastfed on demand when their infants were very young, but began to introduce boundaries as their babies became toddlers. The reasons for introducing boundaries varied, but were commonly cited as practical reasons such as encouraging children to sleep for longer stretches, and to avoid the need for nursing outside the home. The women felt it was important that the child could understand these boundaries and therefore rationalise and negotiate to agree mutually acceptable restrictions. Some women night-weaned their children, while others would limit the number or length of feeds. This negotiation process was important in allowing mothers to continue nursing, because continued breastfeeding without restrictions became tiring and impractical:

"He has that little bit more understanding... We now have a limit that there's a time in the evening by which he needs to have milk because I find the later it gets the more uncomfortable. I'm tired, I get fed up, so he's respecting that." (P9)

3.2 Managing Perceived Disapproval

Women described how perceived approval for breastfeeding changed as their child transitioned from 'baby' to 'toddler'. Participants felt pressured to breastfeed when their babies were young, but discouraged as their child grew. Women were criticized for continuing to nurse and were openly questioned by family and co-workers about weaning intentions. The age at which they became aware of this sea change in attitudes varied, but was typically between one and two years. The child's chronological age was a factor in this attitudinal shift, the child's physical size and developmental abilities were also influential.

Milestones perceived as significant in transitioning to 'toddler' were walking and the child being "able to ask for it [breastmilk]" (P11). Participants described being made to feel like an "outcast" (P14) or "outsider" (P17). Although the women felt judged, perceived disapproval was not sufficient to motivate weaning for most women. When asked whether anything had ever made them consider stopping breastfeeding, one participant explained she had struggled to cope with persistent criticism from co-workers:

"I feel very under the microscope since I've come back to work. I've had comments like 'well you're still feeding her, what do you expect? She's still using you as a dummy." (P19)

The women perceived that their decision to breastfeed was not considered private by family members or co-workers, and found their choices being discussed publicly:

"They all think I'm mad, the whole family! They're quite nice to my face... It's more that I know when I'm not in the room that comments are made about it, and I know she [my mother] has said things to my husband." (P6)

3.2.1. Self-protection strategies

In response to expressions of disapproval, women developed various self-protection strategies. Some women were open about their ongoing nursing but felt the need to have "scientific research to back it up" (P11) so they could "leap up and defend" (P5) their decisions. Several women felt protected by the WHO recommendation of breastfeeding for two years. However, most women concealed the fact they were breastfeeding an older child. Participants who had previously felt confident to breastfeed in public began to avoid feeding outside of the home:

"I would never feed him in public. I probably didn't feed him in public much after he was two." (P6)

"When I picked her up from nursery she would always want a feed and I didn't just feed her there, I would go and hide somewhere...I didn't even tell the nursery staff I was still breastfeeding" (P16)

Women avoided conversations about nursing and would "keep it quiet" (P12) or lead others to believe their children were weaned:

"You reach a point where other people assume that the child has weaned and there is no reason to correct that assumption...it's just easier for both parties" (P7)

3.2.2. Accessing support

Peer support groups were important for participants to feel "accepted" (P2) and women were comforted "knowing that other people are doing it" (P10). Many women attended inperson support groups, but online groups became increasingly important as children aged. Peer advice was often sought as many women felt unable to seek professional support for fear of disapproval. Participants reported that healthcare professionals (HCPs) advised weaning as a solution to problems: "They're like 'can't they just stop?"" (P10), and several participants reported being offended by comments made by doctors. One participant was asked: "Surely you're not *still* breastfeeding? Are you going to do that until she goes to university?" (P16), and another told that continuing to breastfeed would be detrimental to her child:

"The consultant made some comments about how I should be considering weaning and not feeding my baby anymore because of her age... he told me there were no benefits to breastfeeding beyond two, and he told me that breastfeeding hinders children's development." (P5)

Women perceived that many HCPs were not aware of the benefits of breastfeeding and often anticipated negative responses; they therefore did not trust advice if the provider was perceived as unsupportive.

Participants reported that they developed personal concerns during subsequent pregnancies, including uncertainty about whether nursing during pregnancy is safe, and questions regarding the possibility or practicalities of tandem nursing more than one child. Women sought advice on these topics from peer groups, as there was concern that

professionals may have insufficient knowledge to provide support, or offer advice coloured by "opinion rather than evidence" (P5).

3.3 Breastfeeding as a parenting tool

When children became toddlers, women described using breastfeeding as a practical "parenting tool" (P2). Participants explained that breastfeeding was an effective way to calm and "reset" (P1) toddlers, and was useful to "control their behaviour" (P6). Women would offer breastmilk as a "modified cuddle" (P4) if children hurt themselves or became frightened:

"If he does get really upset about something and he can't calm down usually he can settle with having a little bit of milk. So for me it's like this cure all – it's so wonderful; I rely on it quite a lot." (P7)

One participant explained that breastfeeding had helped her child cope with a hospital admission:

"...they had to put a cannula in. I had him facing me while his arm was out, and I nursed him through that because it was so very distressing." (P9)

Many participants also found breastfeeding a useful tool to manage night-waking, and was described as an "easy way to get them back to sleep" (P12).

DISCUSSION

This study explored the experiences of 19 women who breastfed their child beyond one year of age and contributes to the limited, but growing, literature exploring experiences of

longer-term breastfeeding. Women in this study actively expressed dislike for the term "extended breastfeeding", which is the label often used to describe the practice of breastfeeding beyond infancy in the academic literature (29) and by HCPs; they identified best with the term "natural-term breastfeeding". Women reported feeling pressured to breastfeed when their babies were young, but equally felt pressured to discontinue as children grew. Most participants were unaware of WHO guidelines for duration of breastfeeding and thought breastfeeding an older child was 'weird' prior to delivery. Women described having to overcome their own prejudices towards breastfeeding older children, and perceived that doing so was considered socially deviant. It was perceived by the women that most HCPs disapprove of breastfeeding beyond infancy, which fostered reluctance to seek advice and support.

Strengths of this study include its relatively large sample size with rich data, and that analytic data saturation was achieved. Due to the potentially sensitive nature of breastfeeding beyond infancy, women are often difficult to identify and access (29). Many previous studies have recruited via advocacy groups (6,17,30,31); however, these women may be considerably more open about their breastfeeding status and findings may not be transferable to breastfeeding mothers in general. This study used social media as a platform for recruitment, which allowed construction of a maximum variation sample including women of a range of ages, with different numbers of children, and a wide range of breastfeeding duration, thereby increasing transferability. Employing telephone and Skype interviews as a method of data collection meant participation was not limited by geographical location. Criticisms of these methods suggest they may impair rapport formation and, in the case of telephone interviews, limit interpretation of non-verbal cues

(32,33). However, the interviewer did not feel that rapport was compromised compared to face-to-face interviews, and research suggests they are a viable alternative to face-to-face qualitative interviews (32,33). Limitations of the study include that participants were predominantly white and highly educated, however, this may also reflect that this demographic is most likely to breastfeed past infancy (29). These findings may, therefore, not be transferable to women from non-White backgrounds, and exploring the experiences of women from black and minority ethnic (BAME) communities is an important area for future research to ensure they are supported. It is also notable that only seven (37%) of the 19 participants were employed full-time, and further research exploring the impact of work upon breastfeeding continuation may be valuable.

As in all qualitative research, researcher position and reflexivity were important considerations. The interviewer (AJT) is a mother of two who has breastfed an older child herself, and therefore it was important to adopt a reflexive approach (34) to mitigate the ways in which this may have inadvertently shaped data collection. The 'insider' (35) position of the interviewer may have been advantageous as participants can be more willing to share their experiences with someone who they perceive to be understanding of their situation (35). In addition, the researcher was equipped with insights to understand implied content, and hence potentially elicit a deeper understanding of the phenomenon (35). An inductive approach to analysis was adopted to ensure that interpreted themes were rooted in the data (36), with a second analyst (LLJ) providing a different stance during interpretation as this researcher had not breastfed beyond infancy.

In line with other studies (19,20,37,38) the decision to continue breastfeeding beyond infancy was shaped by parenting philosophy, and women reported childcare practices consistent with the attachment parenting paradigm. However, this study found that the adoption of this strategy was gradual, and not necessarily held prior to delivery. The adoption of it occurs as the breastfeeding mother learns to parent, and instinctually follows the cues of her infant, ultimately leading to the re-alignment of parenting beliefs and reinterpretation of health advice. The philosophy holds such importance that the women ultimately adopt subversive and secretive behaviour to continue breastfeeding, which they perceive as necessary to optimally nurture the child. Further, this study found that the philosophy evolved as children grew. Initially it was entirely 'child-led', but as children became able to rationalise and negotiate the women introduced boundaries. This negotiation was important for women to continue, as breastfeeding without boundaries became arduous or impractical. Attachment parenting has its roots in Attachment Theory (39), which posits that a strong emotional and physical connection to at least one primary caregiver is critical to development. The term "attachment parenting" describes a style of parenting which is highly responsive to infant cues (40), and typical behaviours include cosleeping, feeding on demand, extensive carrying and holding of infants, and rapid response to crying (41). Research suggests that this parenting style is associated with enhanced brain and social development, including peer relationships and schooling, and in the longer term more favorable responses to stress (41).

Co-sleeping was believed to be important in establishing a successful nursing relationship, however, co-sleeping and night-feeding are not aligned with contemporary western cultural expectations (29) which value prolonged periods of independent sleep (42). For women who

wish to co-sleep, the provision of safe co-sleeping advice may help facilitate establishment and maintenance of successful breastfeeding. It is important to note that there is an association between co-sleeping and sudden infant death syndrome (SIDS)(43,44). The National Institute of Clinical Excellence (NICE) recommends that parents should be informed of this association, but the guidance also states the causes of SIDS are likely to be multifactorial and a possible causality link with co-sleeping is not clearly established (44).

One motivator for breastfeeding beyond infancy which was repeatedly discussed was a strong belief in breastfeeding as a biological norm. This echoes prior studies on longer-term breastfeeding, in which mothers narrated their decisions to continue breastfeeding as "natural" (37) and "evolutionarily appropriate" (19). From an evolutionary perspective, modern human children are adapted to be breastfed for several years (45,46).

Anthropological research estimates that the human biological weaning-age falls between two and seven-and-a-half years of age, if based on physiological parameters alone (45).

Providing education on biological weaning-ages could contribute to normalisation of this behaviour and motivate more women to breastfeed for longer.

Women perceived that breastfeeding an older child was considered socially deviant, and experienced open comments and criticism, mirroring the findings of previous research (6, 17-21, 37). Women also perceived that most HCPs disapprove of, or are uneducated about, breastfeeding beyond infancy, which fostered reluctance to seek advice and support from professionals. Although UK child health records contain documentation to facilitate conversations regarding infant feeding, the last section which formally documents a discussion about breastfeeding occurs during the 9-12-month developmental review. Given

that women were hesitant to actively seek support, inclusion of a discussion around breastfeeding at the two-year-review may promote normalcy and afford women a 'safe' opportunity to discuss any issues with a HCP. It may also be prudent for midwives to discuss breastfeeding with multiparous women early during subsequent pregnancies, as women reported that becoming pregnant again prompted breastfeeding concerns. Assessing the views and knowledge of HCPs about this is an important area for future research, to establish whether additional training or guidance is needed.

CONCLUSION

Enabling optimal breastfeeding duration has potentially enormous health, social and economic advantages (1,2,9). Women experience cultural and social barriers to breastfeeding their children beyond infancy, which may compel women to conceal the behaviour. Moreover, women are reluctant to seek support from HCPs due to fear of judgement or pressure to wean. HCPs should be aware of the benefits of optimal duration breastfeeding, and be mindful of their terminology when consulting with women, for example, using language such as "natural-term breastfeeding" rather than "extended breastfeeding". Inclusion of a breastfeeding section, to facilitate formal documentation, at the two-year-review may promote normalcy and afford women a 'safe' window of opportunity to discuss potential issues. Education regarding biological weaning-ages and promotion of WHO guidelines for minimum breastfeeding duration may encourage more women to breastfeed for longer. As well as promoting natural-term breastfeeding to mothers, education targeting the public and HCPs is necessary to encourage normalisation and acceptance.

LIST OF ABBREVIATIONS

BAME: Black and minority ethnic

CYPHS: Children and Young People's Health Services

HCP: Healthcare professional

IFS: Infant Feeding Survey

MSDS: Maternity Services Data Set

NICE: National Institute of Clinical Excellence

NHS: National Health Service

SIDS: Sudden Infant Death Syndrome

WHO: World Health Organisation

DECLARATIONS

Ethics approval and consent to participate: Ethical approval was sought and a favourable decision obtained from the University of Birmingham Internal Ethics Review Committee (ref: IREC2017/1319061). All participants provided informed consent prior to participation.

Consent for publication: Not applicable.

Availability of data and material: The datasets generated and analysed during the current study are not publicly available due to the risk of compromising the individual privacy of participants, but are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

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Patient and public involvement: There were no funds or time allocated for PPI so we were unable to involve patients. We have invited patients to help us develop our dissemination strategy.

Author contributions: AJT conceived the study and designed it in collaboration with LLJ. AJT conducted and transcribed the interviews. Data were coded by AJT. All authors contributed to analysis and interpretation. Initial drafts of the manuscript were written by AJT, which were reviewed and edited by LLJ and AET. All authors have read and approved the final manuscript.

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FIGURE TITLES

Figure 1. Flowchart summary of recruitment and sampling process

Figure 2. Schematic representation of themes

ADDITIONAL FILES

Additional file 1

PDF file

Title: COREQ Checklist

Description: Reports page numbers for each COREQ reporting criteria

Additional file 2

PDF file

Title: Supplementary Quotes Table

Description: Provides additional quotations to support themes

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191 women completed online questionnaire

30 women contacted with further study information based on screening variables

27 women agreed to take part

3 women did not respond

19 women completed interviews before analytic data saturation was achieved

Parenting philosophy

- Attachment parenting paradigm
- Child-led approach

- Benefits of breastfeeding
- Biological norm
- Sense of achievement
- Supporting others

Transition from babyhood to toddlerhood

- Adjusting expectations
- Managing perceived disapproval
- Breastfeeding as a parenting tool

Self-protection strategies

 Importance of peer support

²⁴₂₅ Breastfeeding beliefs

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ADDITIONAL FILE 1

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Developed from:

Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health C. 2007; 19(6): 349–357. http://dx.doi.org/10.1093/intqhc/mzm042

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research te	am reflexi	vity	
Personal characteristics	s		
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	8
Credentials	2	What were the researcher's credentials?	8
Occupation	3	What was their occupation at the time of the study?	8
Gender	4	Was the researcher male or female?	8
Experience and training	5	What experience or training did the researcher have?	8
Relationship with partic	cipants	6	
Relationship established	6	Was a relationship established prior to study commencement?	23
Participant knowledge of the interviewer	7	What did the participants know about the researcher? E.g. personal goals, reasons for doing the research	24
Interviewer characteristics	8	What characteristics were reported about the interviewer? E.g. bias, assumptions, reasons and interests in the research topic	8, 24
Domain 2: Study desig	n	0,	
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was used to underpin the study? E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	7
Participant selection			
Sampling	10	How were participants selected? E.g. purposive, convenience, consecutive, snowball	8
Method of approach	11	How were participants approached? E.g. face-to-face, telephone, mail, email	8
Sample size	12	How many participants were in the study?	8
Non-participation	13	How many people refused to participate or dropped out? Reasons?	8

Setting			
Setting of data	14	Where was the data collected? E.g. home,	8,9
collection		clinic, workplace	
Presence of non-	15	Was anyone else present besides the	9
participants		participants and researchers?	
Description of sample	16	What are the important characteristics of	11 (table
		the sample? E.g. demographic data	3)
Data collection			
Interview guide	17	Were questions, prompts, guides provided	9 (table
		by the authors? Was it pilot tested?	1)
Repeat interviews	18	Were repeat interviews carried out? If yes,	N/A
		how many?	,
Audio/visual	19	Did the research use audio or visual	9
recording		recording to collect the data?	
Field notes	20	Were field notes made during and/or after	9
		the interview or focus group?	
Duration	21	What was the duration of the interviews or	8
		focus group?	
Data saturation	22	Was data saturation discussed?	8
Transcripts returned	23	Were transcripts returned to participants	N/A
		for comment and/or correction?	
Domain 3: analysis and	l findings		1
Data analysis			
Number of data	24	How many data coders coded the data?	9
coders		•	
Description of the	25	Did authors provide a description of the	N/A
coding tree		coding tree?	
Derivation of themes	26	Were themes identified in advance or	7
		derived from the data?	
Software	27	What software, if applicable, was used to	9
		manage the data?	
Participant checking	28	Did participants provide feedback on the	N/A
		findings?	,
Reporting	1		1
Quotations presented	29	Were participant quotations presented to	12-22
		illustrate the themes/findings? Was each	
		quotation identified? E.g. participant	
		number	
Data and findings	30	Was there consistency between the data	12-22
consistent		presented and the findings?	
Clarity of major	31	Were major themes clearly presented in	12-22
themes		the findings?	
Clarity of minor	32	Is there a description of diverse cases or	12-22
themes		discussion of minor themes?	
	l		•

ADDITIONAL FILE 2 – Supplementary Quotes Table

Theme	Sub-Theme	Quote	Participant
Parenting	Attachment	"My daughter was very demanding and quite communicative even as a newbornShe told us	16
Philosophy	parenting	what she wanted and what she wanted was for us to be attachment parents, basically. That	
	paradigm	was not something I went into parenting thinking. I had no particular opinions on co-sleeping	
		or anything else, really. It's just she slept better in bed with us so she slept in bed with us. She	
		wanted to be on the breast so I put her on the breast. She didn't like the buggy, so I had her	
		in a sling. I would find it hard to imagine that somebody who did extended breastfeeding	
		never ever coslept or never baby carried, but it's entirely possible I suppose."	
		"I intended to follow the attachment parenting route, so I've kind of done that, but I have	9
		made different decisions along the way, or not made decisions and let him lead it more than I	
		thought I would have done."	
		"When we were running around in caves we didn't put our babies in cots in the next room,	6
		our babies were next to us because that's where they feel safe."	
	Child-led	"We've carried on because it seems to be important to him."	10
	approach		
		"If she wants to carry on I'm not going to cause her anxiety and stress by saying 'oh no you	12
		can't do that'. Obviously, I do every now and then, I have to distract her but I'm not going to	
		wean her intentionally when that's what she wants."	
		"It also didn't sit well with me emotionally, to force her into these things that didn't seem	16
		right for her. Her one comfort was breastfeeding. That was the thing that worked for her."	
		"I have no intention of stopping until he wants to stop."	2
Breastfeeding	Benefits of	"Anything that he needs at that moment, my milk is going to change to his needs. And if I get	18
Beliefs	breastfeeding	a cold, the antibodies will get passed through to him."	
		"The main one in our house at the moment is the immunity because we have had continuous	10
		bugs in our house since the smallest one has been born, so I wonder where we would be if we	
		didn't have that. And I know that that doesn't dissipate no matter what the age of the child,	
		so I don't want to give that up."	

	"When my child is sick, that's the best time. That's the best reassurance of knowing that I'm doing the best thing for him. Because he won't eat anything else, not keeping anything else down, or if he's lethargic, you know that they're getting their vitamins and that's the best feeling in the world."	14
	"Some days my mum will say I offered her this but she didn't have that, she did have a bit of cake or banana or yogurt, so sometimes nothing savory, but I know that at least at the start and the end of the day she's getting that goodness from me. That's a real plus point for still feeding."	19
	"For me it wasn't really about nutrition, although certainly there are nutritional benefits, but it was more about health benefits, bonding, the parenting tool which you can't get from cow's milk because it's not the same thing."	15
Biological norm	"Just that it is biologically normal. That's the main reason for feeding. We are mammals, and mammals are designed to feed their children. Evolution would tell you that that's what is best for them."	1
	"And the more I learned about how babies are, and about the breastfeeding dyad, and breastfeeding from an evolutionary perspective, baby brain and physical development, it just really made me realise the importance of breastfeeding as opposed to other feeding methods."	5
	"I never thought this would be something I'd do, but when I looked into the fact that it is biologically normally, I decided to, why not? And it's worked out for us."	15
Sense of achievement	"My choice is to breastfeed my baby. Every other choice about my birth had been taken away from me – and that's okay because we came out of it alive and that's the main thing – but I was so determined not to lose thisFor me, it's this amazing achievement"	11
	"I feel lucky that I was able to breastfeed because I had a very difficult birth and my birth was not how I wanted it to be. For me, being able to breastfeed has been a gift to my child. And for me breastfeeding has been healing. I didn't give birth in the way that I wanted to so being able to breastfeed has been a gift. It will be one of my greatest achievements and one of the greatest gifts that I could give to my son in lots of ways; health, emotionally that's why I want it to end well. I want it to be something that is beautiful."	9

	Supporting	"I needed breastfeeding counsellors coming to home to show me things. It's all very well	13
	others	saying oh well go out to a group, but at first it took me 10 days to leave the house and even	
		them I was like oh my god, what am I doing? I want people coming to my house to help me	
		and reassure that it's okay. Because we've lost all that. We've lost seeing other people feed. I	
		think there should be way more support than there is."	
		"I think the more help there is to enable people to breastfeed then the better it will be.	14
		Which is why I do what I do and spend so much time helping mums, giving advice, approving	
		posts, become a peer support worker, because when I started I didn't even know I could go to	
		a breastfeeding group, which I think would've really helped me and I might have made more	
		friends with mums that are actually still breastfeeding"	
		"It just made me really want to support people, breastfeeding made me feel good so I just	5
		want to see more support for other women."	
Transition	Adjusting	"I thought he would wean when we started solids, and then I thought he would wean when I	10
from	expectations	went back to work – convinced he was going to wean when I went back to work because I	
Babyhood to		was doing night shifts. Then I was convinced he would wean when he started walking,	
Toddlerhood		because that was delayed. Then – when was the next time? – when I got pregnant. But he	
		didn't, and then I gave up thinking he would wean after that."	
		"It's good to see that people are going for longer and feeding for longer, because I didn't	12
		presume it happened to be honest. You never really see it so I didn't know the time that	
		you're supposed to breastfeed for."	
		"I wanted to manage 6 weeks because I thought that was what people did, and then babies	4
		have bottles. The same way that babies wear nappies, babies have bottles."	
	Managing	"It seems like past a year, then people are like 'what are you doing? They can have cow's	10
	perceived	milk. Why would you bother?'"	
	disapproval		
		"There are so many people that would say that it's weird and what are you doing. And 'why	11
		hasn't he weaned, is there something wrong?'"	
		"I didn't want to feed in public. And when she was around 2 and having these tantrums I	16
		knew that breastfeeding would calm her down but I didn't want to do it and I was very self-	
		conscious of that and I would get more stressed and she would get stressed."	

Self-	"But the toddler, I don't do it [breastfeed] out in public. I annoy myself by not doing it out in	4
protection	public, because you don't see people doing it out in public, so it's not normalised, and I'm	
strategies	perpetuating this."	
	"I find myself using really apologetic language about it. And I have to sort of justify it."	19
	"I think once we got to the age of 1 you start to feel like you need to have the science to	1
	back it up."	
Accessing	"There was a breastfeeding class, not a class, a support group But when my daughter got to	12
support	a year old I realised that she was the oldest baby there, and people have given up a long time	
	before. So I realised I was a bit of an outlier in terms of the duration but I am involved in a lot	
	of breastfeeding groups on Facebook. I think you need that support."	
	"Having a network and a group of other women who have gone through it, peer supporters	6
	and that, that's a really important factor. Finding that group of people that share your views	
	on breastfeeding. Without that, it would be a fairly lonely experience. I've made friends	
	through breastfeeding that I still meet up with now."	
	"I hear from a lot of mums that they are being told to stop night feeds by the health visitors	5
	and I think there's a lot of opinion rather than evidence-based information out there. I see it	
	as a big factor."	
Breastfeeding	"If he's scared, that's the first place he goes and he calms down like that. If he's upset, he'll	2
as a	have literally 20 seconds if that – it's the best parenting tool I've ever had."	
parenting tool	O_{Δ}	
	"To cure all problems – whether she's warm or whether she's cold or whether she's thirsty or	12
	whether she's just feeling a bit insecure or just needs a cuddle, you know that there's one	
	thing that fixes everything. Rather than having to do a checklist of saying well check her	
	temperature, change the outfit, put her in the bath, or whatever, and having to go through	
	the checklist and wonder what could possibly be wrong, it fixes everything."	
	"It certainly makes life with a toddler so much easier if they fall down and scrape their knee	7
	or are scared about a situation or something it was so easy to have them nurse for a few	
	seconds and them they're back to being happy"	