

1 **Title Page**

2 Breastfeeding mothers' awareness and experience of using the breastfeeding memory aide CHINS:

3 An exploratory descriptive qualitative study.

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9

10 **Abstract**

11 Background

12 Breastfeeding has immediate and long-term benefits for both mother and child, but many mothers
13 feel unprepared for the challenges of early breastfeeding. The first letter mnemonic, CHINS, was
14 developed as a tool to help practitioners remember retain and recall the principles of positioning for
15 effective breastfeeding and a UK wide evaluation shows it is used widely within the UK breastfeeding
16 workforce. This study sought to understand the extent to which breastfeeding mothers were aware
17 of CHINS and their experience of using it to support their breastfeeding.

18 **Methods**

19 An exploratory qualitative research design was used to describe and interpret the findings of
20 individual interviews with 11 breastfeeding mothers from across the UK who were recruited via a
21 digital flier shared via social media and breastfeeding networks. The interviews were analysed
22 thematically.

23 **Results**

24 Awareness and perception of CHINS, Timing of introduction to CHINS, and Sharing CHINS were the
25 key themes to emerge, with an overarching core theme – The Right Advice at the Right Time. All the
26 participants in the study were aware of CHINS and found it particularly helpful during the early
27 stages of breastfeeding. Some participants reported that others, including fathers and peers were
28 aware of CHINS and had used it to support breastfeeding mothers. The participants felt support for
29 breastfeeding was variable and that it was important to ensure that the right advice was given at the
30 right time.

31 **Conclusion**

32 This study included a small number of breastfeeding mothers from across the UK and whilst there
33 were high levels of awareness and perceived value of CHINS, a larger study would be warranted to

34 explore the value of CHINS in more depth as well as to understand the role of CHINS in the wider
35 education of peers and significant others, including fathers.

36 **Key words**

37 CHINS, breastfeeding, skills, support, education, peers.

38 **Introduction**

39 Breastfeeding has immediate and long-term health benefits for both mother and child. For example,
40 it is estimated that if all United Kingdom (UK) infants were exclusively breastfed, the number of
41 babies admitted to hospital with diarrhoea would be halved, and those admitted with a respiratory
42 infection would be reduced by a quarter [1]. Additionally, breastfeeding protects children from other
43 infections, diabetes, asthma, heart disease, obesity, and sudden infant death syndrome[2]. Mothers
44 who breastfeed have reduced risk of breast and ovarian cancers and breastfeeding supports
45 maternal mental wellbeing, helping the mother-baby relationship [2].

46 Women who are older and from professional backgrounds with higher levels of educational
47 attainment are more likely to breastfeed, whereas those from poorer socio-economic backgrounds
48 are less likely to do so [3]. Breastfeeding rates are impacted by a range of factors, including the long
49 history of formula feeding in the UK, stigma associated with breastfeeding in public, as well as
50 perceptions that breastfeeding is difficult and embarrassing. These are compounded by many
51 mothers having little exposure to breastfeeding or encouragement to do so from their immediate
52 social circle [3]. While the proportion of new mothers initiating breastfeeding has increased from
53 66% in 2005/6 to 74% in 2010/11 and remaining stable until 2016/17, this has dropped slightly to
54 72%, and rates of babies who are partially or fully breastfed drop significantly at 6-8 weeks and
55 2021/22 data shows rates of 49% [2]. It is suggested that many who stop breastfeeding during this
56 period cite problems such as ability to latch, sore or painful nipples and insufficient milk supply as

57 reasons for stopping, and importantly many indicate they would have liked to have continued for
58 longer [3;4].

59 Fox, McMullen and Newburn [3] suggest that women often feel they are unprepared for the
60 challenges of early breastfeeding and that whilst breastfeeding promotion, which has characterised
61 health policy and practice continues to be important, what women really need is practical support in
62 the early post-natal period and beyond. An international systematic review of breastfeeding
63 interventions in primary care found that interventions that combine pre- and postnatal components
64 had a larger impact on increasing short- and long-term breastfeeding rates, and that the greatest
65 impact is when a combination of approaches are employed [5]. Practical support should include help
66 with positioning and attachment, which are known to be the most common reasons for problems
67 with breastfeeding [1], and it is here where the memory aide CHINS can have value.

68 CHINS is a first letter mnemonic developed by the first author during her own UNICEF Baby Friendly
69 Initiative Training -see Table 1. CHINS was grounded in the UNICEF breastfeeding theory delivered
70 within the training and was designed to help practitioners remember, retain, and recall the principles
71 of positioning for effective breastfeeding. It has since been incorporated into UNICEF BFI training and
72 is widely established in the practice of many breastfeeding practitioners and publications.

Table 1: An overview of CHINS

Close: babies need to be close to their mother so they can scoop enough breast into their mouths. Ensure both mother and baby's clothing and hands are not in the way.

Head free: when attaching to the breast babies tilt their heads back. This allows the chin to lead as they come to the breast. Even a finger on the back of the baby's head will restrict this important movement.

In line: the baby's head and body should be in alignment so they do not have to twist their neck, which would make feeding and swallowing difficult.

Nose to nipple: with mother's nipple resting below the baby's nose, they will begin to root. As the baby tilts their head back, the nipple will slip under their top lip upwards and backwards to rest between the hard and soft palate. Nose to nipple is that starting point for effective attachment.

Sustainable: mothers need to be comfortable and relaxed and in a position that suits them best.

73

74 While CHINS has been widely used, until recently it had not been formally evaluated. A UK mixed-
75 methods evaluation of the memory aide CHINS was conducted during 2022-2023, funded by the
76 Burdett Trust for Nursing, which focused on understanding the impact of CHINS for breastfeeding
77 practitioners and mothers. A summary of the findings was shared via a poster presentation at the
78 Annual Baby Friendly Initiative Conference in November 2023 [6]. The findings indicate that CHINS
79 has been widely embedded in the practice of key professionals involved in the promotion and
80 support of breastfeeding, particularly midwives and health visitors, and has had a positive impact on
81 their work. Whilst CHINS was developed for use by practitioners, this strand of the wider evaluation
82 sought to conduct exploratory work to determine whether breastfeeding mothers were aware of
83 CHINS and if so, to understand their perceptions of it to further inform its role in breastfeeding
84 education and practice. This paper focuses on breastfeeding mothers' awareness and experience of
85 the breastfeeding memory aide CHINS.

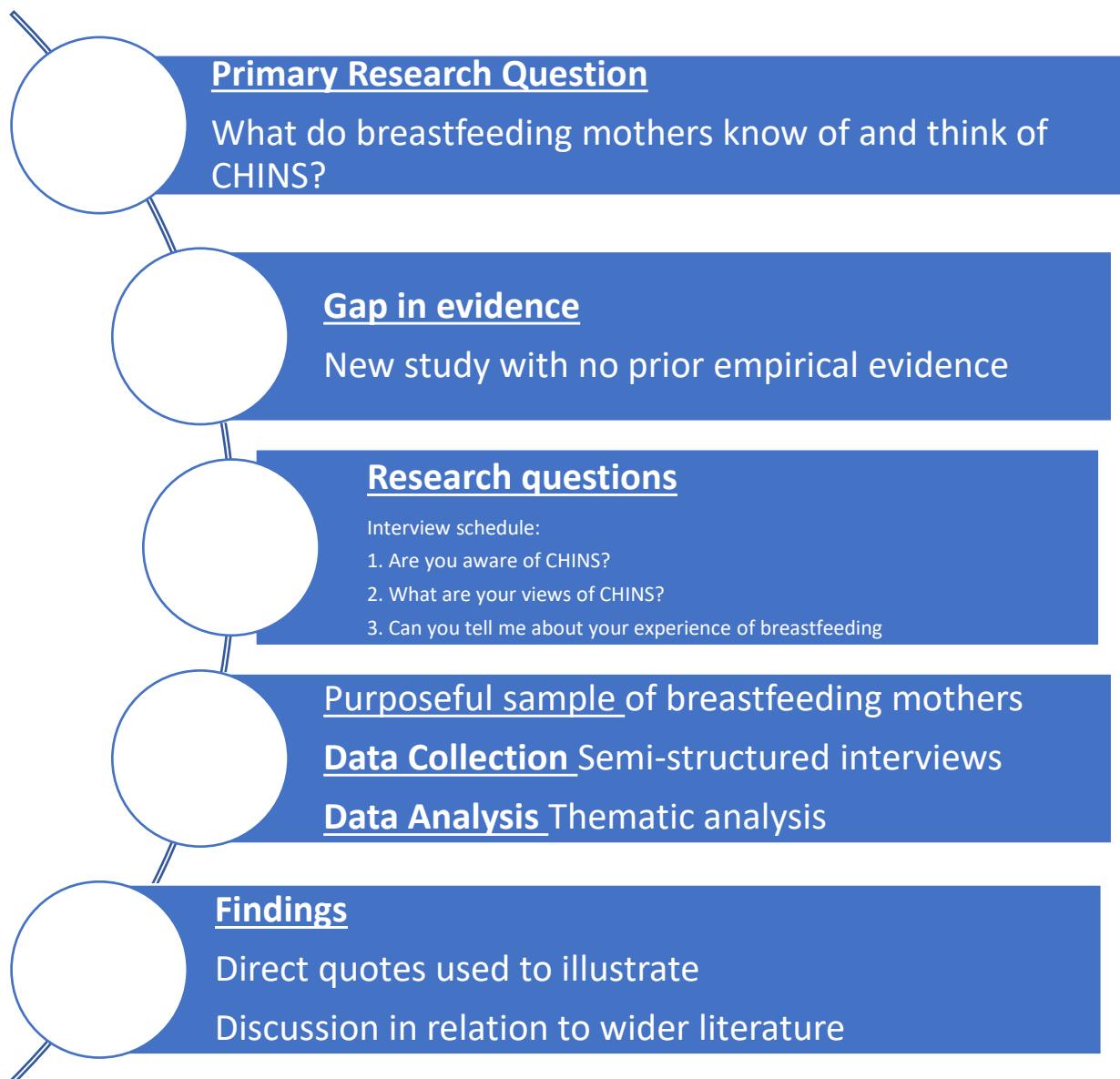
86 **Methods**

87 *Justification for using exploratory descriptive qualitative (EDQ) research design.*

88 The EDQ research design outlined by Hunter et al. [7] combines approaches outlined by Sandelowski
89 [8] and Stebbins [9] whereby there is a descriptive element which is used to gain insight and inform
90 but there is also an interpretive element where the aim is to use the data in a meaningful way.

91 Drawing on Hunter et al's. [7] approach an overview of the stages in this study is shown in Figure 1.

92 **Figure 1: EDQ Design**



93

94 **Aims**

95 To conduct an exploratory descriptive qualitative study in the United Kingdom to gain insight into
96 whether breastfeeding mothers are aware of CHINS and their perceptions of it.

97 Objectives:

98 1. To conduct individual qualitative semi-structured interviews with breastfeeding mothers
99 from across the United Kingdom.

100 2. To thematically analyse the findings to identify key themes.

101 3. To use the findings to make recommendations for practice and for future research.

102

103 *Ethical considerations*

104 Ethical approval was gained from the University of Northumbria (ID 40808). All participants were
105 over 18 and were given written information about the study prior to taking part to ensure informed
106 consent. All data collected was anonymised and audio recordings destroyed following transcription.

107 A university approved transcription service was used to transcribe interviews verbatim, and these
108 were stored on a secure university server.

109 *Recruitment*

110 In January 2022 an electronic flier was developed, and this was shared widely via regional and infant
111 feeding networks across the United Kingdom, as well as via social media, including Facebook, Twitter,
112 and LinkedIn. The flier was reposted regularly via social media over the course of the next 6 months.

113 In total a purposeful sample of 11 breastfeeding mothers (with an age range of 26-44) were recruited
114 from across the UK. The characteristics of the participants can be seen in Table 2.

115

Table 2: Characteristics of the participants

Pseudonym	Age	Ethnicity	Marital Status	Occupation	Education	Household income	area	Children
Jane	44	White British	Married	Driving Instructor	None given	£34,000	Wolverhampton	2 (18 months and 13 years old)
Libby	40	White British	Married	International relations manager sport	BSc	£80,000	Lincolnshire	2 (Infant and 3-year- old)
Nina	40	Mixed other	Married	Care worker	GCSE City and Guilds NVQ	£30,000	Durham/Teesside border	3 (Infant, 1 year old, 4-year-old)
Jenny	38	White British	Co- habiting	Social Worker	BSc	>£50,000	N Yorkshire	2 (1 year old and 4yr old)
Rachel	26	White British	Co- habiting	Primary Teacher	BA (hons)	£70,000	Stockton on Tees	1 (Infant)
Hannah	44	White British	Married	Self employed	Hons degree	£60,000	County Durham	4 (Infant, 5-year-old, 7-year-old 9-year- old)
Jill	28	White British	Co- habiting	Car insurance	None given	£21,000	County Durham	1 (Infant)
Kate	30	White British	Co- habiting	Not working	GCSE	Benefits	County Durham	1 (Infant)
Sally	36	White British	Married	Breast screening service	BSc	£80- 90,000	Greater Manchester	1 (Infant)
Connie	29	White British	Co- habiting	Recruitme nt	GCSE	£36- 48,000	South Wales	1 (Infant)
Sarah	32	White British	Married	Governme nt researcher	MSc	£84,000	S Wales	2 (14 months and 2 years old)

117 *Data collection*

118 To facilitate the UK scope of the study interviews were conducted either over the telephone or via
119 Microsoft Teams. All interviews were conducted by the first author and lasted between 45 and 60
120 minutes. To reduce interviewer bias, given that the first author had developed CHINS, an interview
121 schedule was employed to ensure all participants were asked the same questions. The interviews
122 were voice recorded for sharing with the second author. Participants were advised that all views of
123 CHINS were welcome and of value to the study, and that critical views could help to strengthen it.
124 The interview schedule (Figure 2) focused on knowledge and views of CHINS as well as allowing
125 mothers to freely share what they wished about their experiences of breastfeeding and the support
126 they had received or would value. Participants were given a £20 gift voucher following their
127 involvement.

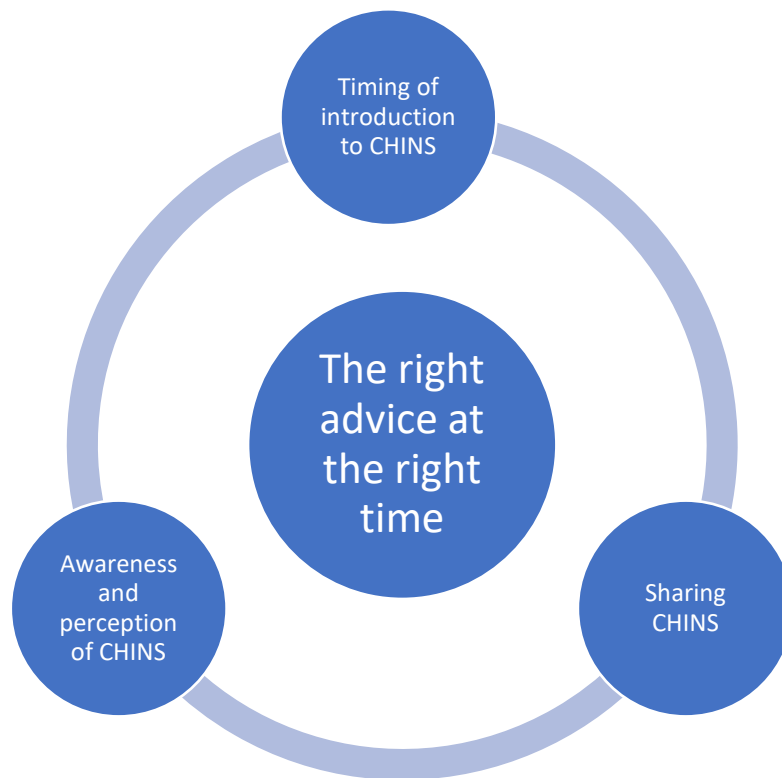
128 *Data analysis*

129 Thematic analysis based on Braun and Clarke's [10] framework was used, which is consistent with
130 EDR, where the intention is to explore and describe but also to identify and evaluate core statements
131 to get to the core of participants experiences [7]. This involved the first and second authors
132 independently reading transcripts to become familiar with the data before identifying meaningful
133 sections and initial themes and re-reviewing these and the data to ensure no new themes were
134 emerging. This was followed by several further meetings to review, refine, and finalise the themes.

135 **Results**

136 The key sub-themes to emerge from the interviews are shown in Figure 3: Awareness and perception
137 of CHINS, Timing of introduction to CHINS, Sharing CHINS. These sub-themes combine in the core
138 overarching theme – The right advice at the right time.

139 Figure 2: Identified themes.



140

141

142 **Awareness and perception of CHINS**

143 The participants in this study all had some level of awareness of the memory aide CHINS and were
144 able to cite key features of the memory aide, such as having baby “close to me, and, like, in-line”
145 (Kate), as well as the need for “nose to nipple” (Jane). Their awareness came mainly from their
146 midwife or health visitor, as outlined below:

147 *“Yeah, one midwife came in and explained CHINS to us. I think it was a lady called [Name] .*
148 *And she came in and she explained it to us.” (Rachel)*

149 One participant (Connie) reported CHINS being covered in a private breastfeeding session she had
150 paid to attend, which was delivered by the Natural Childbirth Trust. This had helped her to
151 understand the key principles of positioning, and she felt this was very important:

152 *“I’m a double H, so having a newborn is quite daunting, because of how much breast there is*
153 *[..] But I always made sure she could move her head [..] If she was in my lap, for instance, I*
154 *would use the nose-to-nipple, definitely. Obviously, every woman’s different [in terms of body*
155 *shape]” (Connie).*

156

157 There was a consensus among the participants that CHINS should be shared widely and routinely
158 with breastfeeding mothers to ensure they had the right information to breastfeed effectively. For
159 example, Jane told us:

160 *“You want to actually have a proper routine set in your head. You know, you want to make*
161 *sure they are close to you. You want to make sure that they are, you know... They’ve got the*
162 *nose to nipple [...] The nose to nipple – that’s the thing that I couldn’t get right with [...] That’s*
163 *why it was more relevant[...] So, it’s getting it all in the right order, and it made sense to have*
164 *a correct order.” (Jane).*

165

166 Sally and Jill referred to the positive impact CHINS had had on their breastfeeding:

167 *“Like I said, I genuinely did see the CHINS information and I did follow the advice and... I*
168 *know when she’s latched on properly.” (Sally).*

169 *“It was only after I’d got all of the information [CHINS] that she actually started latching on*
170 *properly.” (Jill).*

171

172 Here, the participants felt CHINS had had a positive impact on their ability to breastfeed but also
173 it had given them confidence that their babies were feeding effectively.

174 **Timing of introduction to CHINS**

175 The timing that CHINS was shared was an important theme and the participants referred to three key
176 stages in their breastfeeding journey. Firstly, the antenatal period where they were preparing to
177 breastfeed, secondly during the early stages of breastfeeding and finally, during times when they
178 were facing difficulties, they felt CHINS helped them to back to basics.

179 *Preparing to breastfeed*

180 As outlined by Sarah, having CHINS before the birth of her baby would have helped her to
181 understand the principles of positioning and she felt this would have made her feel better prepared:

182

183 *“I definitely think it would be helpful for people who are... Like, for me, thinking about when I*
184 *was going to have a baby, if I’d read a bit more about that to help, you know, me think about*

185 *my positioning and that sort of thing, because I think that was my issue – was positioning*
186 *more than anything else. I think if I'd known a bit more, had a bit more advice about it, I*
187 *would have felt more prepared". (Sarah).*
188

189 Jane also held this view: *"And I didn't even pack bottles after that. It was literally like a week*
190 *before I was due to have my c-section, and I'd got the idea of going and buying spare bottles*
191 *to pack, ready, just in case. But on the basis of that conversation, I went, stuff it – I'm not*
192 *even going to bother. I'm actually just going to do exactly what's in my head. And then my*
193 *husband, bless him, as soon as he heard her cry, he went, don't forget CHIN" (Jane).*
194

195 Here, the participants feedback suggests sharing information about CHINS in the antenatal period
196 might not only help to prepare mothers to breastfeed but might also help them make decisions
197 about whether to breast or formula feed their babies. Jane's point is a reminder that fathers and
198 significant others of breastfeeding mothers play an important role.

199 *"But, no, I found it [CHINS] really helpful. It helped my partner as well because it made him*
200 *remember. And he kept... I remember him saying to me a few times, close... And, like [...]*
201 *And it was like he'd really taken that in. So, it was probably a good visual aid for the person*
202 *supporting the mum, actually" (Rachel).*
203

204 *CHINS in the early phases of breastfeeding*

205 The participants reported a need for good support during the early phases of breastfeeding and they
206 felt CHINS could be helpful at this important stage. For example, Libby said:

207 *"You know, especially early days... If I was ever struggling a bit with latch, you know, I'd*
208 *just... I remember always telling myself like, you know, nose to nipple and... You know, let*
209 *them have their head, you know, and keeping them flowing... and so, I just... I know that it*
210 *was those things that I would always try and repeat" (Libby).*
211

212 For Nina, although she had older children, she felt CHINS had helped her with breastfeeding:

213 *"With my third it was more just sort of reminding me -go back to basics – you're dealing with*
214 *a baby here, who can't push themselves into the right position the way the bigger ones can.*
215 *So, it was just a reminder to make sure that they were tucked in close and head in line*
216 *and... Nose to nipple – that's the biggest one, from it" (Nina).*

217 One participant was keen to point out that CHINS could have real value in the early days and weeks
218 of breastfeeding and felt that once she became aware of CHINS, it had, had a positive impact on her
219 breastfeeding experience:

220 *“I think it [CHINS] would have [helped], in the first couple of weeks, definitely. It was only*
221 *after I’d got all of the information that she actually started latching on properly. Whether*
222 *that was me getting used to it, or whether too sure what I was doing, I did have to use quite*
223 *a lot of nipple cream, because it was getting really, really sore. And I can see why people do*
224 *give up on breast-feeding, if they don’t have that help”.* (Jill).
225

226 **Sharing CHINS**

227 Perhaps the most significant evidence of the value of CHINS to breastfeeding mothers is
228 demonstrated by the fact that many of the participants had shared it with their peers. For example,
229 Jane recalled supporting a friend:

230 *“Do it this way – get her close to you, get her comfortable, make sure that she’s got, you*
231 *know, head free and all that [..] She is still breastfeeding her daughter.”* (Jane).
232

233 Sarah had also shared it, as outlined below:

234 *“Oh, yeah, definitely. I have done [shared CHINS] with a couple of friends who’ve had babies*
235 *after me. My one friend had a baby in September 2020, and I’d said to her about it, because*
236 *she’d expressed she wanted to breast-feed, so I said “Well, this was really helpful...” and all*
237 *that sort of stuff”* (Sarah).
238

239

240 There was also evidence of the impact that sharing CHINS with fathers could have. For example,

241

242 *“But, no, I found it [CHINS] really helpful. It helped my partner as well because it made him*
243 *remember. And he kept... I remember him saying to me a few times, close... And, like [...]*
244 *And it was like he’d really taken that in. So, it was probably a good visual aid for the person*
245 *supporting the mum, actually”* (Rachel).

246 Here, consistent with Jane’s comment outlined earlier in this paper, when CHINS is shared with
247 father’s and other significant people around breastfeeding mother, it can help them to provide good
248 support.

249

250

251 **The right advice at the right time.**

252 Whilst this exploratory qualitative study sought to understand the extent to which breastfeeding
253 mothers were aware of CHINS and their views of it, a key over-arching theme to emerge was that the
254 mothers in this study wanted the right advice at the right time. This was particularly important in the
255 antenatal period and early stages of breastfeeding, as outlined already. There was a consensus from
256 the participants that good support both from professionals and peers was invaluable but also that
257 this support varied greatly. Jill told us:

258 *“It was quite a big shock to me, the fact that there was seven babies there around her age*
259 *and she was the only one on breast” (Jill).*
260

261 Jill was clear that she found the support from her peers helpful in relation to other aspects of
262 parenting, alongside recognising the real benefits of social networks, but she did feel that the chance
263 to talk about the particular experience of breastfeeding would have been welcome, particularly in
264 the early weeks and months. This was echoed by some of the participants who had experienced and
265 benefitted from peer support. Whilst peer support was considered challenging in relation to the
266 number of breastfeeding mothers attending some community groups, this was compounded by
267 variation in the support from professionals. One participant made the following comment:

268 *“Because I know I wanted to do it, I felt like I had to reach out for that help. Like, it didn’t feel*
269 *like, if I hadn’t pushed... If I hadn’t pushed for the help, I don’t think it would have been*
270 *given to me” (Kate).*

271 Kate felt that the support she had received was helpful, but that more could be done to ensure
272 mothers were aware of it and were actively offered it rather than having to seek it. She noted that
273 not all breastfeeding mothers would know where to go for support or perhaps may not feel confident
274 in asking for it.

275 What was also important, particularly in the very early postnatal period was that the focus of
276 support was relevant. For example,

277 *“Realistically, I think the biggest thing from my point of view is that... The education of the*
278 *staff – that they know what they’re talking about. And when to intervene, and when to help.*
279 *And the fact that... Putting the importance on the correct things. I would much rather have*

280 *somebody come and talk to me about breast and bottle feeding, rather than giving me a free*
281 *pack of condoms". (Jane).*

282 Here, Jane was clear that advice in the immediate postnatal phase should focus very much on
283 feeding and immediate care needs and that other important advice could be given at a later stage.
284 An unexpected theme to emerge was support for stopping breastfeeding. Both Hannah and Jenny
285 reported a lack of support at this key stage:

286 *"it's just, with breastfeeding in particular, if you get to a point where you want to wean*
287 *[wean off the breast], there isn't any real support around that. It's more about getting off to*
288 *a start rather than how to end" (Jenny).*

289 *"The other bit that I don't see any support on – and I certainly had challenges – is the other*
290 *end, when you're wanting to wean off the breast" (Hannah).*

291
292 For Hannah and Jenny, this stage of their breastfeeding journey was important to them, and they felt
293 that practical advice as well as support for the emotional impact of breastfeeding cessation would
294 have been valuable. They noted that this stage coincided with the fact that less support from health
295 professionals was offered.

296

297 **Discussion**

298 The aim of this study was to understand the extent to which breastfeeding mothers were aware of
299 CHINS and their experience of using it. As outlined in the findings, levels of awareness were high and
300 CHINS had, had a positive impact in terms of raising knowledge, skill, and importantly confidence in
301 breastfeeding. As mentioned previously, the findings of a UK evaluation of CHINS focused on
302 breastfeeding practitioners [6] shows widespread use of CHINS among key practitioners including
303 midwives and health visitors, and that this is largely driven by its sustained use in UNICEF Baby
304 Friendly Initiative training. Indeed, key guidance for staff to use and share with parents makes
305 specific reference to CHINS in supporting effective breastfeeding [11]. For one participant, the impact
306 of learning about CHINS was so significant that it changed her decision to breastfeed. Whilst this was
307 a small study and the participants may not be representative of the wider population of

308 breastfeeding mothers, this does suggest that CHINS can play an important role in breastfeeding
309 education and support and aligns with wider evidence that outlines the need for skills-based
310 education and support to improve initiation and continuation [5; 12]. T

311 The high levels of awareness of CHINS provides some evidence that the mothers in this study had
312 received support from professionals and peers in relation to their breastfeeding, given that these
313 were the main routes by which they became aware of CHINS. However, despite this some of the
314 participants perceived a lack of support. This might suggest a mismatch in terms of the support they
315 received and the support they wished for but might also be reflective of geographic variation in the
316 availability of professional and peer support. The shortage of midwives [13] and health visitors is well
317 documented in the UK [14], and this produces challenges in terms of service delivery and priorities at
318 local level. Whilst this may explain some of the experiences of the participants in this study, it is
319 something that would require more detailed exploration with a larger sample. Equally, whilst it was
320 not the focus of this study, the references in this study to the role of peers and significant others,
321 including fathers, suggests that sharing CHINS more widely could have benefit. Although, there is a
322 developing body of work outlining how fathers support breastfeeding, this emphasises their role in
323 influencing infant feeding decisions and helping to support family functioning [15]. More detailed
324 exploration of their role as an information giver or practical supporter is needed, as highlighted in
325 this study where their knowledge of CHINS was beneficial. This suggests that there is value in their
326 inclusion in antenatal and postnatal contacts with health professionals and more detailed exploration
327 of how professionals do and should not only include but provide targeted support to fathers in the
328 various roles they occupy in supporting breastfeeding is needed [15].

329 The timing of advice for breastfeeding was a key theme to emerge and of particular interest was that
330 some of the participants felt they would have liked support from health professionals at the point
331 where they wished to stop breastfeeding. It is accepted that this may have been compounded by a
332 number of factors, including the workforce and geographical pressures outlined above but equally,

333 this may be a result of the strategic emphasis on service providers to capture data on initiation and
334 breastfeeding data at 6-8 weeks [16] as well as the fact that only 1% of women in the UK are
335 exclusively breastfeeding at 6 months [16]. These statistics present a dilemma for services that are
336 already depleted in terms of how priorities are identified, scarce resources are targeted, and whether
337 emphasis is placed on initiation and continuation or support later in the breastfeeding journey. What
338 is important to consider is that discontinuation of breastfeeding can produce a sense of internal
339 conflict for some mothers. Indeed, Komninou et al. [17] note that some mothers can find themselves
340 facing conflicting expectations from family, work and social commitments that present real barriers
341 to breastfeeding, as well as internal conflict and emotional distress relating to their sense of duty as a
342 mother and their own personal needs. Therefore, this may be an area and time where professionals
343 can play a key role in providing support.

344 **Conclusions**

345 This exploratory study had a small sample of 11 breastfeeding mothers and on this basis, it is not
346 possible to generalise the findings to a wider population, particularly as all the participants had
347 heard of CHINS and were overwhelmingly positive about it. Recruiting a wider population of
348 breastfeeding mothers, would help to provide a more robust evaluation and could obtain the views
349 of those who had not heard of CHINS or who had found it unhelpful, which could inform future
350 developments and applications of CHINS. This could be achieved by expanding the approach to
351 recruitment and circulating the opportunity to take part in the study more widely via other health
352 professionals and community or charitable organisations. Equally, future research could adopt a
353 mixed-methods approach where the practices of breastfeeding mothers and their significant others
354 were observed and researched over a longer period. Despite this it is important to acknowledge that
355 this was an exploratory study, and it was positive that there was representation from geographic
356 areas across the UK and that the interviews were length and detailed. Inherent in any research is the
357 extent to which the interviewer and the context impact on the findings, and in this case, the

358 interviewer's connection to CHINS may have impacted but the participants did appear to speak
359 openly about their experiences. This is reflected in the findings where experiences were not confined
360 purely to experience of CHINS but allowed breastfeeding mothers to talk about wider experiences
361 and views which were important to them. As such, this study provides insight into some of the needs
362 of breastfeeding mothers.

363 Based on the findings of this study, there is a clear need to consider what advice and support is given
364 to breastfeeding mothers and when. This includes more extensive consideration of how
365 interventions such as CHINS can help breastfeeding mothers to develop skills and feel confident in
366 breastfeeding. Whilst not the focus of this study, it would be valuable to consider the role of CHINS in
367 the wider education of peers and significant others, such as fathers, who play a key role in promotion
368 and support of breastfeeding.

369 **Declarations**

370 *Ethics approval and consent to participate.*

371 Ethical approval was granted by Northumbria University (ID 40808). and participation of the adults
372 involved was on a voluntary basis. Consent to participate was obtained prior to conducting the
373 interviews.

374 *Consent for publication.*

375 Informed consent was obtained from participants, and this included awareness of how data would
376 be stored, managed, and published.

377 *Availability of data and materials*

378 The datasets generated and/or analysed during the current study are not publicly available but are
379 available from the corresponding author on reasonable request.

380

381 *Competing interests*

382 The authors declare they have no competing interests.

383

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386 study or in this publication.

387 *Author's contributions*

388 LS conducted data collection. LS and TC analysed the data and identified themes from the data. LS
389 was a major contributor in writing the manuscript. LS and TC read and approved the final
390 manuscript.

391

392 *Author's Information*

393 Dr Lynette Shotton is an Associate Professor and Dean of Apprentices at Northumbria University.
394 She is a registered general adult nurse and a Specialist Community Public Health Nurse / Health
395 Visitor.

396 Dr Tracy Collins is an Assistant Professor in the Department of Social Work, Education and
397 Community Well-being. Tracy is an Occupational Therapist with experience in conducting qualitative
398 research.

399

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