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5
6 **Availability of breastfeeding peer-support in the UK: a cross-sectional survey**

7
8
9 **Abstract**

10
11 Peer-support is recommended by the World Health Organisation for the initiation and
12 continuation of breastfeeding, and this recommendation is included in UK guidance. There
13 is a lack of information about how, when and where breastfeeding peer-support is provided
14 in the UK. We aimed to generate an overview of how peer-support is delivered in the UK
15 and to gain an understanding of challenges for implementation. We surveyed all UK Infant
16 Feeding Coordinators (n=696) who were part of UK based national Infant Feeding Networks,
17 covering 177 NHS organisations. We received 136 responses (individual response rate
18 19.5%), covering 102 UK NHS organisations (organisational response rate 58%). We also
19 searched NHS organisation websites to obtain data on the presence of breastfeeding peer-
20 support. Breastfeeding peer-support was available in 56% of areas. However, coverage
21 *within* areas was variable. The provision of training and ongoing supervision, and peer-
22 supporter roles, varied significantly between services. Around one third of respondents felt
23 that breastfeeding peer-support services were not well integrated with NHS health services.
24 Financial issues were commonly reported to have a negative impact on service provision.

25 One quarter of respondents stated that breastfeeding peer-support was not accessed by
26 mothers from poorer social backgrounds. Overall, there was marked variation in the
27 provision of peer-support services for breastfeeding in the UK. A more robust evidence-
28 base is urgently needed to inform guidance on the structure and provision of breastfeeding
29 peer-support services.

30 **Introduction**

31 The World Health Organization recommends that infants should be exclusively breastfed for
32 the first six months of life, with breastfeeding continuing alongside complementary foods
33 until at least two years of age (World Health Organization, 2014). One way in which it is
34 recommended that breastfeeding is supported is through the use of peer-counsellors in the
35 community (World Health Organization, 2015). Peer-support is one model of peer-
36 counselling, developed by the La Leche League in the 1950s. It has been defined as “support
37 offered by women who have received appropriate training and either have themselves
38 breast fed or have the same socioeconomic background, ethnicity, or locality as the women
39 they are supporting.” (Jolly, Ingram, Khan, et al., 2012: 2). A systematic review and meta-
40 analysis of randomised controlled trials of breastfeeding peer-support has highlighted
41 heterogeneity within peer-support models (Jolly, Ingram, Khan, et al., 2012). To date, there
42 is a dearth of peer reviewed literature reporting how peer-support is provided in routine
43 practice. Within the USA Special Supplemental Nutrition Program for Women, Infants and
44 Children (WIC) programme, which is available to mothers on a low income, a standardised
45 training programme (Loving Support©) was provided. However, there was variation in
46 service delivery including the availability of peer-support, ongoing support provided and
47 intended schedule of contacts with mothers (United States Department of Agriculture Food

48 and Nutrition Service, 2015). The authors, however, note that programmes delivered
49 across the United States of America have become more homogenous over time, showing
50 the potential for breastfeeding peer-support to become more standardised.

51 Within the UK, breastfeeding rates are particularly low: less than 1% of mothers exclusively
52 breastfeed for six months, and this is lower among mothers who are younger, less affluent,
53 and of white British ethnicity (McAndrew et al., 2012). The UK body which recommends
54 health treatments to commissioners in England, the National Institute for Health and Clinical
55 Excellence (NICE), recommends the provision of a peer-support service as part of the
56 strategy to increase breastfeeding rates in the UK. However, it does not specify a model of
57 service provision (NICE, 2008). Little is currently known about how peer-support is
58 provided, or the content and reach of such services in the UK. An understanding of current
59 practice is required to assess what can feasibly be delivered, the challenges for
60 implementation, and to inform service development.

61 The UK is divided into four nations (England, Scotland, Wales and Northern Ireland), each of
62 which has devolved power to deliver health care. To date, there have been three studies
63 that investigated how peer-support was provided in the UK (Britten, Hoddinott, & McInnes,
64 2006; Dykes, 2005) [self citation, 2013]. These were (i) a synthesis of evaluations of process
65 and acceptability from a range of heterogeneous projects in England which had received
66 government funding in order to increase breastfeeding, including 26 breastfeeding peer-
67 support projects (Dykes, 2005), (ii) a “multiple case study” comprising all nine breastfeeding
68 peer-support projects operating in Scotland in 2002 (Britten et al., 2006), and (iii) a survey of
69 all NHS Health Boards focusing on breastfeeding peer-support and breastfeeding groups in
70 Wales in 2013 [self citation, 2013]. These reports highlighted heterogeneity within and

71 between UK nations, including: approaches to recruiting peer-supporters, marketing and
72 delivery of services and a lack of standardised record keeping. There was significant
73 variation in how peer-support was provided, to whom and in what circumstances, and in the
74 relationship between peer-supporters and health professionals. Reductions in funding as a
75 result of public health being moved outside of the NHS in England and austerity measures
76 (Iacobucci, 2016) may have affected English and Scottish services since these evaluations
77 were completed over a decade ago. Currently, only Welsh and Scottish services have been
78 comprehensively mapped, and there has been no comparable mapping of services provided
79 in England or Northern Ireland.

80 Our research aimed to describe the coverage of breastfeeding peer-support services and
81 breastfeeding support groups, models of provision, and facilitators and barriers to
82 implementation.

83

84 **Methods**

85

86 *Participants*

87

88 Our sample comprised infant feeding co-ordinators who were members of one of four
89 national infant feeding co-ordinator networks: (i) the National Infant Feeding Network
90 (serving England); (ii) the Scottish Infant Feeding Adviser Network; (iii) the All Wales Infant
91 Feeding Coordinators Forum; (iv) the Northern Ireland Breastfeeding Coordinators Forum

92 (total n= 696 individuals) within 177 NHS organisations which provided maternity or
93 community maternity services¹. We believe that the Networks included all individuals who
94 undertook an Infant Feeding Coordinator role in the UK, but also included some other
95 health professionals and academics with an interest in infant feeding.

96

97 We raised awareness of this survey to potential respondents at a plenary address at the
98 annual UNICEF UK Baby Friendly Initiative conference (27th November 2014), which was
99 attended by the majority of UK infant feeding coordinators. An invitation, which asked
100 infant-feeding coordinators to complete the survey or to pass the link to a colleague if they
101 did not have the appropriate knowledge to answer, was sent to members of the sample via
102 the four Network email distribution lists in December 2014. Follow up emails, thanking
103 those who had already responded and reminding non-responders to take part, were sent to
104 all of those originally contacted one week and 12 days after the original invite.

105

106 *Design and instrument*

107

108 A cross sectional online survey was supplemented by searches of all NHS organisation
109 websites. We adapted a pre-existing survey instrument that was developed for an
110 evaluation of breastfeeding peer-support in Wales [self citation, 2013]. We invited three
111 infant feeding coordinators from the UK to complete a pilot of the online questionnaire and

¹ Within England NHS organisations are known as NHS Trusts. Within Wales, Northern Ireland and Scotland, NHS organisations are known as Health Boards. Within this paper, we use the term NHS organisations to mean both NHS Trusts and Health Boards.

112 provide feedback to us on the process and content of questions, all three took part. In
113 response to the findings of this pilot we amended our participant information to clarify that
114 respondents may need access to service level data in order to complete the survey. As all
115 questions remained the same, data obtained in the pilot phase were included in the main
116 analysis.

117

118 Respondents completed a questionnaire consisting of a combination of closed and open text
119 questions. Questions examined how breastfeeding peer-support was organised in the
120 geographical area for which respondents had responsibility, with a focus on breastfeeding
121 peer-support and breastfeeding support groups (see Table 1). The chair of the Wales
122 Research Ethics Committee 3 stated that this survey constituted an audit of current service
123 provision and did not require ethical approval.

124

125 **[insert table 1 about here]**

126

127 *Data collection*

128

129 Survey data were collected online only, using a purpose built survey hosted on a secure
130 server at the **[name]** Trials Unit, **[name]** University. Respondents viewed an information
131 sheet and consented to take part in the survey via the online platform prior to taking part in
132 the study. In addition, we searched all 177 NHS organisation websites during July 2016 to

133 obtain data on the presence of breastfeeding support groups and breastfeeding peer-
134 supporters to provide data where we did not receive a response to the survey, and to
135 validate survey data.

136

137 *Data analysis*

138

139 Descriptive statistics (frequencies, percentages and medians where appropriate)
140 summarising responses were generated from closed questions using IBM SPSS 20. Open
141 text responses were coded by one researcher thematically facilitated by NVivo 10. Themes
142 were deductively and inductively generated, and included key areas of interest already
143 identified by questions (e.g.: training peer-supporters) and new themes, such as staffing
144 levels and financial issues.

145

146 *Spatial data*

147

148 The map of UK health service providers was derived from multiple sources. The data for
149 Wales (Local Health Boards, 2015) and England (Primary Care Trusts, 2013) were
150 downloaded from the Office for National Statistics geoportal (Office for National Statistics,
151 2017). Data for Scotland (Health boards) were downloaded from the Scottish Spatial Data
152 Infrastructure Metadata Catalogue. Data for Northern Ireland (Health and Social Care
153 Boards) created from boundary data downloaded from the Ordnance Survey Northern

154 Ireland. Data were downloaded as shapefiles and combined using QGIS Essen 2.14.3 (QGIS
155 Development Team, 2016).

156

157 **Results**

158

159 The findings are structured in four sections: 1.) a description of respondents; 2.) the
160 management and delivery of breastfeeding peer-support services; 3.) management and
161 delivery of breastfeeding support groups; 4.) the impact of resources on service delivery.

162

163 *Respondents*

164

165 A total of 136 responses with usable data were received (response rate 19.5%), representing
166 58% of NHS organisations (see table 2). 47 respondents stated that they were Infant
167 Feeding Coordinators, and a further 10 were breastfeeding coordinators, the majority of
168 other respondents had job titles which focused on infant feeding; no responses were
169 received from those reporting to be academics. Within the 136 responses, there were 34
170 multiple responses within areas, affecting 21 NHS organisations. Seven instances of this
171 were within England where provision was split between the NHS organisation and another
172 provider, such as the local authority. These multiple responses were retained in the dataset
173 as they provided different perspectives in response to open text questions. Accordingly, all

174 data presented (counts and percentages) are at individual level rather than NHS
175 organisation area level unless specified.

176

177 **[insert table 2 about here]**

178

179 The combined findings of the survey and NHS organisation online search showed that
180 breastfeeding peer-support was available in 99 (56%) NHS organisation areas and
181 breastfeeding support groups in 157 (89%) NHS organisation areas. Neither breastfeeding
182 peer-support nor breastfeeding support groups were available in 5 areas (3%), although
183 informal provision not recorded on NHS organisation websites may have been offered in
184 these areas. There was a high degree of overlap, with 86 (87%) areas which had
185 breastfeeding peer-support also providing breastfeeding support groups. Figure 1 illustrates
186 breastfeeding support (groups, peer-support, both groups and peer-support or neither
187 groups or peer-support) provided throughout the UK, with Figure 2 providing a detailed map
188 of London.

189

190 **[Insert figure 1 about here]**

191

192 **[Insert figure 2 about here]**

193

194 Throughout the rest of this paper, the findings are reported only in relation to survey data,
195 and do not include information from the online searches.

196

197 *Breastfeeding peer-support services*

198

199 Infant feeding co-ordinators were most often involved in managing peer-supporters,
200 although thirty respondents highlighted that responsibility was shared by more than one
201 individual, and sometimes voluntary groups were part of a team delivering the service:
202 “(voluntary organisation 1) and (voluntary organisation 2) are commissioned to deliver peer-
203 support alongside direction from IFC's” (PID 242). A multi-strategy approach, involving a
204 range of health and social care professionals and peer-supporters across various locations,
205 was reported in recruiting new peer-supporters in 89% of responses. Breastfeeding groups
206 and breastfeeding peer-supporters were most often involved in recruiting new peer-
207 supporters. The median number of peer-supporters who had been trained in each area
208 since the service began was 50 (range 1-250), with a median of 15 provided with initial
209 training over the previous 12 month period (range 0-64).

210

211 Respondents were asked to describe who provided training in an open text box. The third
212 sector was the most popular provider for initial training of peer-supporters (including the
213 Breastfeeding Network and the National Childbirth Trust), with Infant Feeding Coordinators,
214 NHS and community centre staff also playing a leading role. Some respondents (n=45; 33%)
215 provided further details regarding initial training. Initial training appeared to vary in relation

216 to content and duration; a minority of respondents stated that their course had been
217 accredited:

218

219 (name of awarding body) accredited training provided by (children's centre) staff.

220 This is divided into 3 units covering promoting and supporting breastfeeding and

221 following the principles of the Baby Friendly Initiative². This is Level 1, but peer-

222 supporters can...continue to Level 2. (PID 387)

223

224 However, some respondents noted that training was not currently being provided: "No

225 training provided currently...this was the role of a Specialist Health Visitor who has since

226 left." (PID: 258)

227

228 In addition to initial training, ongoing training or support was reported to be provided by 70

229 respondents (65%), although 8 respondents (7%) did not know if additional training was

230 provided. In two thirds of responses where ongoing support was provided (44, 63%) more

231 than one type of support, such as regular one-to-one meetings with a manager or regular

232 local training updates, was provided. Some participants described the contents of ongoing

233 support or training, including: "Regular supervision and ongoing training to maintain the

234 quality of their work. They also undertake a breastfeeding practical skills assessment and

235 complete additional (training) such as safeguarding." (PID 387).

² Where participants have used abbreviations in their responses, these have been reported in full for clarity.

236

237 However, many respondents provided more vague responses including: “ongoing training”
238 (PID 270), “monthly updates” (PID 389), “additional courses” (PID 185) and “mandatory
239 training” (PID 315). Although joint training with health professionals was reported to be
240 available in some areas, it appeared to be more accessible in some organisations than
241 others. There were practices of mandatory joint training in some areas, for example relating
242 to safeguarding and joint seminars with an aim of encouraging shared working in others:
243 “We aim to provide 1 joint seminar (per year) that PSs & HCP's are invited to attend to
244 promote cooperative working” (PID 396). In other areas, permission to attend joint training
245 was given, but training was not mandatory: “can attend joint training with midwives if they
246 want to come” (PID 343).

247

248 **[insert table 3 about here]**

249

250 The main activity that peer-supporters were involved in was attending (rather than
251 organising) breastfeeding groups, followed by working on the postnatal ward. In general,
252 delivery seemed to be more focused on group support with one-to-one forms of delivery
253 less common. The majority (n=129, 95%) of respondents reported that more than one
254 activity was undertaken by peer-supporters in their area. In some areas peer-supporters
255 saw mothers both antenatally and postnatally (n=68, 50%), but some saw mothers just
256 postnatally (n=39, 29%), and one respondent reported only antenatal contact. The

257 comprehensiveness of services was described throughout in open text responses, with some
258 areas viewed as having a complete model of service delivery:

259

260 The Peer-support Service is a 7 days service 356 days of the year. Team of 10
261 members, total 7.5 WTE from 9-5 man a 24 telephone support line. The Service is
262 integrated into (child health care), works alongside Health Visitors, School Nurses,
263 and support staff. The service delivers Health Promotion sessions within Primary
264 schools, They provide bedside support within the three feeder hospitals, Provide
265 support groups with Children's Centre Groups. It is an excellent service provided by
266 a dedicated team. (PID 348)

267

268 In contrast, some services were not able to provide a comprehensive service, which was
269 attributed to funding: "I have one breastfeeding support worker who is employed by (the
270 NHS organisation), this isn't enough for a birth rate of 2500. We are currently writing a
271 business case for 10 x paid peer-support workers..." (PID, 275)

272

273 Although participants were not asked about mothers' views of breastfeeding peer-support,
274 twelve respondents noted that the service was valued by mothers:

275

276 those mothers who come into contact with the volunteers have nothing but praise
277 for them and they are wonderful ladies who give a lot of their own time , for free,
278 with no reward, but the joy of helping a new mother breastfeed her baby, they are

279 wonderful, I only wish we could give them something back. (PID 312)

280

281 The majority of respondents (n=67, 63%) felt that peer-support was well integrated with
282 other NHS services, such as midwifery and health visiting services. Where respondents
283 provided an explanation for this, the successful integration was most often attributed to
284 clear guidance on roles and responsibilities (n=15, 11%), shared working practices or
285 locations (n=14, 10%) and a high degree of trust between health professionals and peer
286 supporters (n=9, 7%):

287

288 we have information sharing protocol and robust pathways in place , peer-support
289 has become valued due to the length of time it has been in place, staff and mothers
290 value the service case studies etc and evaluation. (PID 267)

291

292 The absence of these factors was felt to result in low integration:

293

294 Despite countless attempts to explain to (health visiting) staff the roles and
295 responsibilities and limitations of a peer-supporter and inform them of the groups
296 available in each area, there is still a reluctance to advertise and recommend the
297 service. I think as the peer-supporters are not health professionals working as (NHS)
298 employees the Health Visitors do not feel confident of their role in the community
299 and understand what peer-support is about. (PID 231)

300

301 Peer-support was felt to be accessed by mothers from poorer social backgrounds by
302 (n=105), 77% of respondents. The majority of these provided an open text response as to
303 why they felt their service was accessible, including elements such as: support on post-natal
304 wards, location of groups (including links with children’s centres and other community
305 organisations), one-to-one home visits: “Groups held in in the more hard to reach areas,
306 mothers from poorer backgrounds receive tailored support and home visits work closely
307 with Family Nurse Partnership³. We have an excellent breastpump loan scheme” (PID 267)

308

309 However, the open text responses to this question made it clear that respondents
310 considered very different levels of accessibility in their responses. Some participants noted
311 that breastfeeding groups were provided in areas of deprivation and rated this at the
312 highest level of accessibility regardless of numbers attending: “We have made sure the BFPS
313 programmes have been commissioned in the area of greatest need” (PID 289). By contrast,
314 other respondents noted that peer-support was offered to all on postnatal wards, or that
315 groups were held in areas of deprivation but offered a lower score:

316

317 I think it is difficult for mums from poorer social backgrounds to access any support
318 groups. Maybe due to preconceived ideas of what a breastfeeding support group
319 would be like. I think it also that breastfeeding is less common in poorer social
320 groups so unlikely they would know anyone or have someone to attend the group
321 with. (PID 229)

322

³ specialist midwives and nurses for young mothers from deprived areas

323 Barriers to accessibility included lack of attractiveness to women from deprived areas,
324 inadequate numbers of peer-supporters, being reactive as opposed to proactive, and not
325 being able to provide home visits. However, elements of good practice in relation to
326 accessibility were often informal, and thus difficult to evaluate:

327

328 The volunteer peer-support service is targeted , the volunteers are active in areas of
329 the borough with low initiation and continuation of breastfeeding, from talking to
330 the volunteers the majority of women access them informally (particularly) women
331 from poorer social backgrounds , this may be through , social networking,
332 conversations at the school gate , at the supermarket , at the hairdressers , whilst
333 the volunteers are attending other groups at the local children's centre with their
334 children. This information is difficult to capture. (PID 253)

335

336 *Breastfeeding support groups*

337

338 There was variation in the number of groups occurring within each NHS organisation which
339 did not appear to be associated with the number of births in the area. Respondents stated
340 that NHS, children's centre staff, and trained peer-supporters most commonly organised
341 breastfeeding support groups. Breastfeeding support groups reportedly took place in a
342 broad range of settings including, community venues (café, garden centre café), children's
343 centres and alongside health visitor (weighing) clinics. It was reported 22 times that some
344 groups ran as 'baby cafes', 'first friends' or generic 'parenting support groups' with a focus
345 on breastfeeding, rather than explicitly as breastfeeding support groups. The

346 comprehensiveness of record keeping at breastfeeding groups varied, and this included
347 reports of variations *within* NHS organisations, as well as *between* organisations.

348

349 *Financial issues*

350

351 The main theme interwoven throughout the open text responses, was the importance of
352 financial support for community breastfeeding services. This was often referred to as
353 problematic, with some services continuing to face a reduction in available funding:

354

355 Funding has been restricted the next course that will be provided is being joint
356 funded by the local authority and NHS Trust charitable funds. Funding for the future
357 is not clear and the breastfeeding supporters are looking at running money raising
358 events to fund future courses. (PID 274)

359

360 Some respondents from England noted that their services had previously been funded
361 through NHS community budgets and that NHS hospital budgets were not continuing to
362 fund peer-support services following the move of public health from the NHS to local
363 government in England:

364

365 (County) has had an extensive programme of Peer-support over the last 8+ years.

366 This was facilitated by (voluntary sector organisation) who received core funding

367 from Public Health from 2008 - 2013... (County) also had a programme of proactive
368 contact from a Peer-supporter within 72 hours of giving birth in certain localities,
369 funded by DoH. However, this project was discontinued and funding for (voluntary
370 sector organisation) withdrawn, leading to a situation in 2014 where Peer-support
371 numbers are dwindling. Enthusiasm remains high with over 50 PS attending a
372 (voluntary sector organisation) conference in October 2014. (PID 185)

373

374 The reported shortfall affected finances to train peer-supporters, to pay them travel
375 expenses, and the resources available to allow health professionals to supervise peer-
376 supporters. In a small number of instances, it was reported that services had been
377 decommissioned. In a minority of areas respondents reported that peer-supporters were
378 paid for their time, but in most services funds were not available to pay peer-supporters.
379 This impacted on the quality of service provision: "It would be wonderful to actually have
380 paid (peer) supporters. We have quite a high turnover because they need to get back to
381 paid employment." (PID 283)

382

383 Several respondents noted that they were attempting to secure funding from charitable
384 trusts or their own employers by writing business cases, and this was often to provide a
385 basic service (supervisor time, travel expenses for peer-supporters), rather than to pay for
386 peer-supporters' time. Some respondents noted that peer-support services were
387 performing highly when compared against the small financial inputs they received:

388

389 We have been re-commissioned by Public Health to train more peer-supporters early

390 next year and hope to get our training accredited. We work on a VERY small budget
391 (£10K) for each cohort including training, materials and resources and ongoing
392 support. (PID 233)

393

394 However, feelings of frustration regarding lack of investment were also apparent:

395

396 my feeling is that the peer-support service could be better funded...the (NHS
397 organisation) has paid infant feeding support workers working on the wards. The
398 children's centre champions provide this service to some degree however with local
399 efficiency savings their time is stretched with competing priorities. We are basically
400 doing the best that we can with the resources that we have. (PID 253)

401

402

403 By contrast, in a minority of areas it was reported that investment was being made, or
404 remade, in peer-supporter co-ordinator roles in areas with no service.

405

406 **Discussion**

407

408 Peer-support for breastfeeding is recommended as part of strategies to increase
409 breastfeeding by the World Health Organization (World Health Organization & UNICEF,
410 2003), and in the UK by NICE (NICE, 2008). However, the guidance is not clear as to what

411 'peer-support for breastfeeding' should entail. To date, a model of peer-support which is
412 effective in improving breastfeeding rates has not been established within the UK (Jolly, et
413 al., 2012). Unsurprisingly within this context, our UK-wide survey of 136 UK-based infant
414 feeding coordinators supplemented with searching of NHS organisation websites, found
415 wide variation in service provision, consistent with previous audits of UK service provision
416 (Britten et al., 2006; Dykes, 2005) [self citation, 2013]. We identified that peer-supporters
417 were available in 56% of NHS areas, showing that there is a foundation for further
418 development of breastfeeding peer-support in over half of UK NHS organisation areas.
419 However, our survey was aimed at respondents with knowledge of large NHS organisation
420 areas, and respondents noted variation in service *within* those areas. As such, it would be
421 inappropriate to define the presence of some peer-supporter services or breastfeeding
422 groups in an area as the presence of services *throughout* each locality in that area.

423

424 High quality breastfeeding peer support training can significantly increase knowledge of
425 breastfeeding (Kempenaar and Darwent, 2013). However, respondents reported variability
426 in training peer-supporters, including the content of courses and the use of joint training
427 with health professionals in some areas and external training provided by the third sector in
428 others. There did not appear to be a uniform standards for training of peer-supporters, or
429 competencies they should attain, across the UK. This is in contrast to provision across WIC
430 agencies in the United States, where a single model of training has been developed, as part
431 of the Loving Support © programme (United States Department of Agriculture Food and
432 Nutrition Service, 2015), including minimum competencies for peer-supporters. However,
433 despite similarities in training package, provision was still variable across the fifty States

434 involved in the WIC programme, showing that further guidance is needed to provide
435 equitable services. Ongoing training and supervision for peer-supporters appeared highly
436 variable, and this is likely to have an impact on service quality and delivery.

437

438 Our survey provides insight into areas of perceived best practice and also where practice
439 may unhelpfully vary, both of which can therefore inform the development of best practice.

440 First, regarding integration between peer-support services and NHS health professionals,
441 clear roles and responsibilities, and visibility to health professionals, including through
442 shared working, were found to enhance cohesion. These factors are generally found to
443 increase compliance to local guidelines in healthcare, through the generation of shared
444 understandings regarding roles and boundaries (Lipsky, 2010), and thus clear guidance
445 should be considered in the development of peer-support services. Second, it was clear that
446 whilst the majority of health professionals reported on a likert-like scale that their service
447 was accessible to poorer mothers, there was variation in what that meant in practice, with
448 many services aiming to meet the needs of poorer mothers not attracting them as service
449 users. Whilst, peer support was viewed as valuable by mothers who attended (Thomson,
450 Crossland and Dykes, 2012), perceptions of breastfeeding groups and breastfeeding peer
451 supporters as a source of pressure to breastfeed urgently require addressing (Hunt and
452 Thomson, 2016). Further work should be undertaken by breastfeeding services to reach out
453 to mothers from deprived areas, to prevent a further increase in health inequalities
454 (Marmot et al., 2010). Third, breastfeeding support groups and peer-support services were
455 not routinely keeping records of service use. Whilst it may appear at odds with the ethos of
456 mother-to-mother support to keep records, the use of standardised records across the UK

457 would enable effective monitoring of service usage. If this is evidenced, services may be in a
458 stronger position to argue for financial investment in the future.

459

460 The most common theme found in open text responses was the challenge of running
461 services with limited financial support, although this was not experienced equally by all
462 services and a minority of services reported recent investment. Linked to this financial
463 shortfall, some services reported challenges of recruiting, training and ongoing supervision
464 for peer-supporters. If the UK is to see an increase in breastfeeding duration, and
465 accordingly to save on health care costs (Renfrew et al., 2012), further investment in
466 establishing the evidence base for effective breastfeeding support services must be made.

467 To date there is no peer-support model that has been found to be effective at increasing
468 breastfeeding within a UK context. However, it may be that the models of peer-support
469 contained within trials that failed to establish efficacy did not provide an adequate dose of
470 peer-support (Jolly et al., 2012), and existing services may not prioritise utilising scarce
471 resources in the most efficient way (Rozga, Kerver and Olson, 2014). Further research
472 should be undertaken to investigate new models of breastfeeding support, which are
473 theoretically robust and have been developed in conjunction with mothers and health
474 professionals, to ensure acceptability and feasibility of delivery (Craig et al., 2008).

475

476 This study is the first attempt to map and describe the provision of peer-support for
477 breastfeeding throughout all four nations of the UK. We received responses from around
478 the UK and achieved a response rate which covered 58% of NHS organisation areas. We

479 supplemented survey data with online searches to enable us to describe the current
480 provision of breastfeeding peer-support and breastfeeding support groups among non-
481 responders to provide a map of coverage across the UK. The survey questions varied
482 between asking for factual information, such as the numbers of groups, and subjective
483 views of service provision, such as how accessible services were to women from deprived
484 backgrounds, and the interpretation of meaning may have varied between respondents.
485 We did not provide participants with a definition for the terms peer support and
486 breastfeeding group, and this may have also led to variations in meaning between
487 participants. Furthermore, these questions are theoretically susceptible to bias. The survey
488 was open for a period of three weeks in December 2014. We acknowledge the biases
489 inherent with a low individual response rate, and that we may have received further
490 responses if the online survey was open for a longer period. We were also made aware that
491 two respondents were unable to access our online survey from their NHS computers. Whilst
492 we provided support which enabled those respondents to take part, it may be that other
493 potential respondents did not contact us and were thus excluded from the survey. Our data
494 provide clear learning about best practice in terms of service design, but these models of
495 more comprehensive training and support for peer-supporters, integration with health
496 professionals and accessibility to poorer mothers have not been tested for effectiveness,
497 and there is thus a limited evidence base on which to guide service development.

498 To conclude, there was no standardised provision of breastfeeding peer-support around the
499 UK, and services were regularly adapted in line with funding available, rather than number
500 of births or perceived need. Evidence-based guidance is urgently needed to inform the
501 provision of equitable breastfeeding peer-support services.

502

503 **Key messages:**

- 504 1. Breastfeeding peer-supporters were available in 56% of NHS organisation areas and
505 breastfeeding support groups in 89% of NHS organisation areas. However, areas
506 were often large, and thus within these areas, women may still face issues accessing
507 peer-supporters or breastfeeding support groups.
- 508 2. There was considerable variation in the content and service delivery of peer-support
509 services for breastfeeding across the UK.
- 510 3. Infant feeding co-ordinators reported that integration between peer-support
511 services and NHS health professionals was increased by clear roles and
512 responsibilities, and visibility to health professionals, including through shared
513 working.
- 514 4. Many services aimed to meet the needs of poorer mothers, but did not attract them
515 as service users.
- 516 5. Breastfeeding support groups and peer-support services were not routinely keeping
517 records of service use.

518

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520 **Conflict of Interest:**

521 **Contributor statement:**

522

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584 Table 1: Overview of survey questions.

Theme	Sub-question topics
Demographics	nation; NHS Trust; number of births in area; staff roles; respondent role description ^a
Breastfeeding support groups	number of groups; who organises groups; presence of records on: attendance, support provided, problems with feeding, referrals, other records ^a ; other thoughts on support groups ^a ; funding for non-NHS breastfeeding groups ^a
Training peer supporters	Number of trained peers; what training is provided; who delivers training ^a , additional training for peer supporters ^a
Peer support	Recruitment of new peers; supervision of peers; activities peer supporters are engaged in; integration of peer support with NHS services ^a ; accessibility of peer support for mothers from poorer backgrounds*; other thoughts on peer support ^a
Other non-NHS support for breastfeeding	Details of support available; provider of support; third sector activities; presence of active breastfeeding counsellors.

585 ^a denotes an open text question was asked, either alongside a closed question or following a
 586 question on a related topic.

587 **Table 2: Sample and response rate**

	Nation	England	Scotland	Wales	Northern Ireland	Total
Individual level						
Individual invitations		617	40	19	20	696
Individual responses		113	11	8	4	136
NHS Trust level^a						
NHS Trusts in sample		151	14	7	5	177
NHS Trusts responses (% of Trusts invited)		68 (45%)	9 (64%)	7 (100%)	2 (40%)	86 (49%)
Number of additional Trusts covered by non-NHS responses		16 (11%)	-	-	-	16 (9%)
Total response within NHS Trust areas		84 (56%) ^a	9 (64%)	7 (100%)	2 (40%)	102 (58%)

588 ^a Nine participants from England did not indicate which NHS Trust their response related to.

589 **Table 3: descriptive statistics**

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<u>Topic area</u>	<u>Closed text response options</u>	<u>Yes (%)</u>	<u>Topic area</u>	<u>Closed text response options</u>	<u>Yes (%)</u>
<u>Question</u>			<u>Question</u>		
<u>Breastfeeding peer support services</u>			<u>Breastfeeding peer support services (cont)</u>		
Is there a breastfeeding peer support service in your area? (n=118)	-	109 (92%)	Do you think that breastfeeding peer support provided in your area is well integrated with the breastfeeding support work that health professionals do? (n=107)	Not at all well integrated	7 (6%)
Who has responsibility for managing (or supporting) peer supporters? (tick all that apply) (n=109)	Infant feeding co-ordinator	48 (44%)	Is the breastfeeding peer support provided in your area accessible to breastfeeding mothers from poorer social backgrounds? (n=107)	not well integrated	12 (11%)
	Local health professional	36 (33%)		somewhat not	21 (20%)
	Other	65 (60%)		somewhat well	22 (21%)
How are new peer supporters recruited in your area? (tick all that apply) (n=103)	At breastfeeding groups	79 (77%)		well integrated	29 (27%)
	By local midwives	45 (44%)		Very well integrated	16 (15%)
	By local health visitors	69 (67%)		Not accessed	2 (2%)
	By local children's centre staff	68 (66%)		moderately not accessed	6 (6%)
	By local peer supporters	76 (74%)		somewhat not accessed	17 (16%)
	other	32 (31%)		somewhat accessed	22 (21%)
Do you know who provides training for the peer-supporters? (n=109)	-	108 (99%)		moderately accessed	17 (16%)

Is there any additional training (beyond initial training) provided for peer-supporters? (n=107)	-	70 (65%)			Readily accessed	43 (40%)
What way are peer supporters supported? (tick all that apply) (n=106)	regular local training updates	69 (65%)	Breastfeeding peer support groups			
	other training updates	34 (32%)	Are there any breastfeeding groups in your area? (n=128)	-		124 (97%)
	attending external conferences	40 (38%)	If you have peer support groups, how many groups are currently running? (n=121)	1-3		13 (11%)
	regular one-to-one meetings with manager	45 (42%)		4-7		35 (29%)
	regular group updates with manager	51 (48%)		8-10		24 (20%)
	Other	0 (0%)		>10		49 (40%)
	None of these	4 (4%)	Are registers of attendees kept at breastfeeding groups in your area? (n=123)	-		92 (75%)
	Don't know	8 (8%)	Are notes on individual mothers who have problems kept at breastfeeding groups in your area? (n=118)	-		34 (29%)
What activities are peer supporters in your area engaged in? (tick all that apply) (n=105)	attending breastfeeding groups	97 (92%)	Are notes on individual mothers who receive support kept at breastfeeding groups in your area? (n=117)	-		31 (26%)

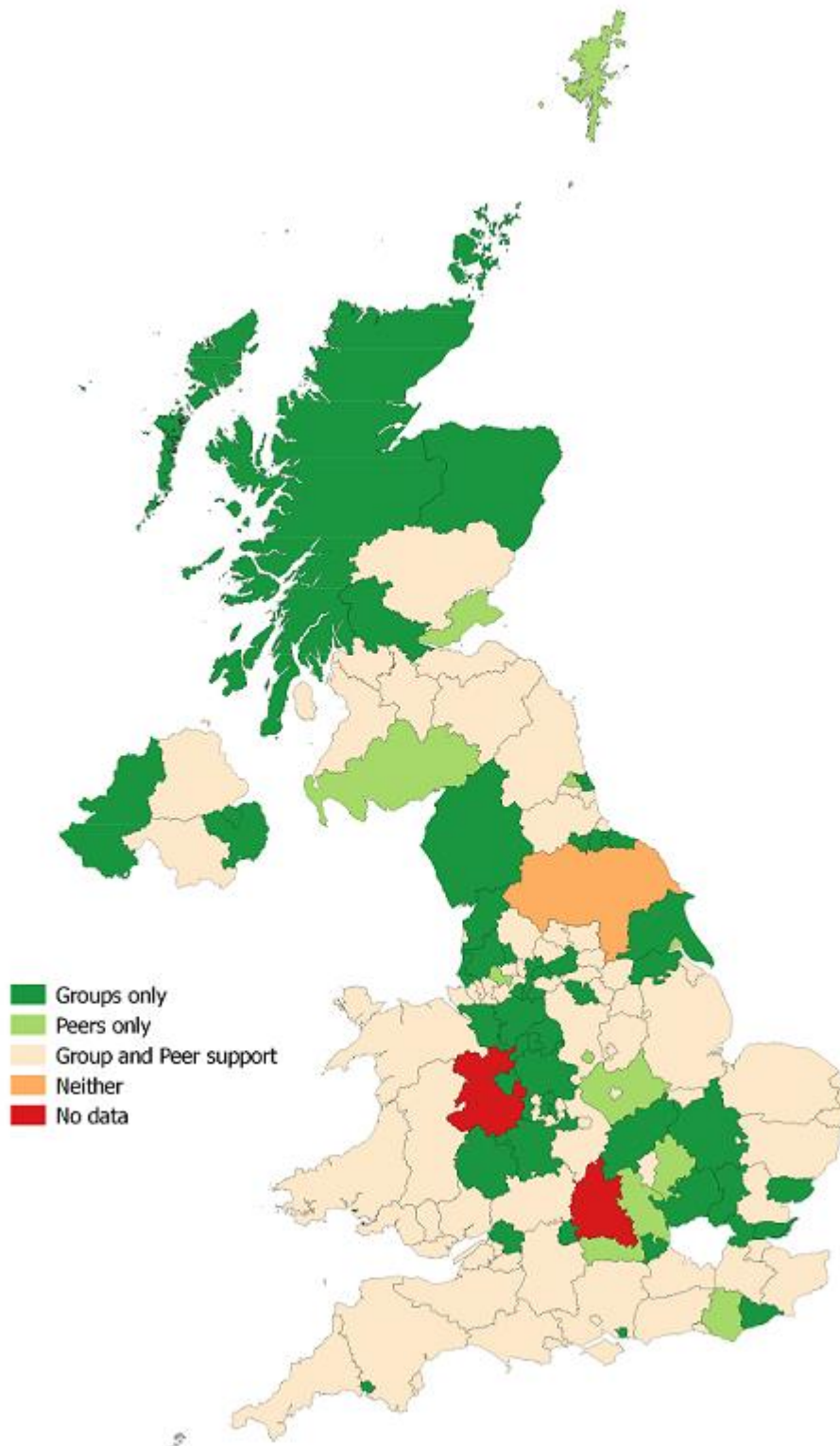
organising breastfeeding groups	45 (43%)	Are notes on individual mothers who are referred elsewhere for additional support kept at breastfeeding groups in your area? (n=117)	-	32 (27%)
home visits to support mothers	43 (41%)	Other		
hospital visits to support mothers	56 (53%)	Has there been a review, evaluation or report of the breastfeeding support service in your area in the past five years? (n=107)	-	66 (62%)
Antenatal clinic visits	34 (32%)	Are there lay/voluntary breastfeeding groups in your area which are not funded by the NHS or Local Authority? (n=115)	-	62 (54%)
attending 'preparation for parenthood sessions;	57 (54%)	Are there breastfeeding counsellors that regularly receive referrals from health professionals in your area? (n=68)	-	31 (46%)
work on the postnatal ward	71 (68%)			
work in a community setting	60 (57%)			
Other	15 (14%)			

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594 **Figure 1: The presence of breastfeeding support groups and breastfeeding peer supporters**
595 **in the UK**



597 **Figure 2: The presence of breastfeeding support groups and breastfeeding peer supporters**
598 **in London, UK**

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