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Interventions to increase the initiation of breastfeeding: a systematic review of studies conducted in the UK and Ireland

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Abstract

Background. The benefits of breastfeeding are well documented and the World Health Organization (WHO) specifically recommends exclusive breastfeeding for six months and up to two years with complementary food. The UK and Ireland continue to report the lowest rates of breastfeeding in the world. Ireland has the lowest reported rate of 'having ever breastfed' (55%) and the UK has the fifth lowest (81%).

Aim. This review was conducted to evaluate interventions that aimed to improve breastfeeding initiation rates in the UK and Ireland as a foundation for developing breastfeeding initiatives in Northern Ireland (NI).

Method. A systematic literature review was conducted using the Population, Intervention, Comparison, Outcomes, Study design (PICOS) Model to define the review question: Which interventions have been tested in the UK or Ireland to improve Breastfeeding initiation rates? The following electronic databases were searched: CINAHL, Cochrane Central Register of Controlled Trials, Embase, MIDIRS, Medline, ProQuest, PsycInfo and Scopus. Groups of search terms were combined relating to 'breastfeeding' and 'initiation' over the time period (2005-18). Intervention studies were eligible for inclusion if breastfeeding initiation was the primary outcome and they were conducted in the UK or Ireland and published in English. Hand searches of article reference lists were also undertaken to ensure no relevant studies were missed. Each paper was independently assessed by five members of the team and verified for inclusion by consensus. A risk of bias analysis of the included studies was also completed.

Findings. In total, 2055 papers were retrieved: 2029 were not eligible. A further 13 duplicates were removed leaving 12 papers for review. Three papers, involving 3316 participants, met the full inclusion criteria. The evidence from these papers of the impact on breastfeeding initiation rates in response to peer, group and one-to-one support interventions conducted was inconclusive.

Conclusion. This review highlights the small number of intervention studies conducted in the UK and Ireland evidencing the need to invest in future research focused on improving breastfeeding initiation rates. Future studies should also examine the contextual issues alongside the development and implementation of interventions.

Key words: breastfeeding, initiation, duration, intervention, systematic literature review, evidence-based midwifery

Background

The health, nutritional, economic, and psychological benefits of breastfeeding for babies and mothers are well documented (Victora et al, 2016). Breastfeeding has been reported to lessen the risk of sudden infant death syndrome and reduce the risk of many illnesses such as ear and chest infections, gastroenteritis and leukaemia (Amitay and Keinan-Boker, 2015; Bowatte et al, 2015; Horta and Victora, 2013; Hauck et al, 2011). In addition, breastfeeding has been linked to an increase in children's intelligence (Horta et al, 2015), fewer dental malocclusions (Peres et al, 2015), reduction in the likelihood of developing child and adult obesity (Victora et al, 2016; Horta et al, 2015) and the reduced likelihood of developing non-communicable diseases such as diabetes (Horta et al, 2015). For women who breastfeed, there is evidence that breastfeeding reduces their risk of developing diabetes, and breast or ovarian cancers (Gunderson et al, 2018, Chowdhury et al, 2015, Luan et al, 2013). On a worldwide scale, it is estimated that breastfeeding could prevent 823,000 annual deaths of children under five years and 20,000 deaths from breast cancer (Victora et al, 2016). The financial impact on the global economy of not breastfeeding is estimated at £242 billion, and in the UK it is estimated that not breastfeeding results in £23.6 million additional treatment costs each year (Rollins et al, 2016). Pokhrel et al (2014) estimates that increasing breastfeeding could lead to health care savings in the UK of £38.33 million on treatments such as gastrointestinal and lower respiratory tract infections, otitis media and necrotising enterocolitis, and breast cancer in women. The psychological benefits of breastfeeding include enhancing the physical and emotional attachment of mother and baby, and the release of oxytocin, which promotes mothering and bonding (Baber, 2015).

Despite considerable evidence supporting the potential benefits of breastfeeding, a recent paper reported breastfeeding rates in the UK and Ireland to be among the lowest in the

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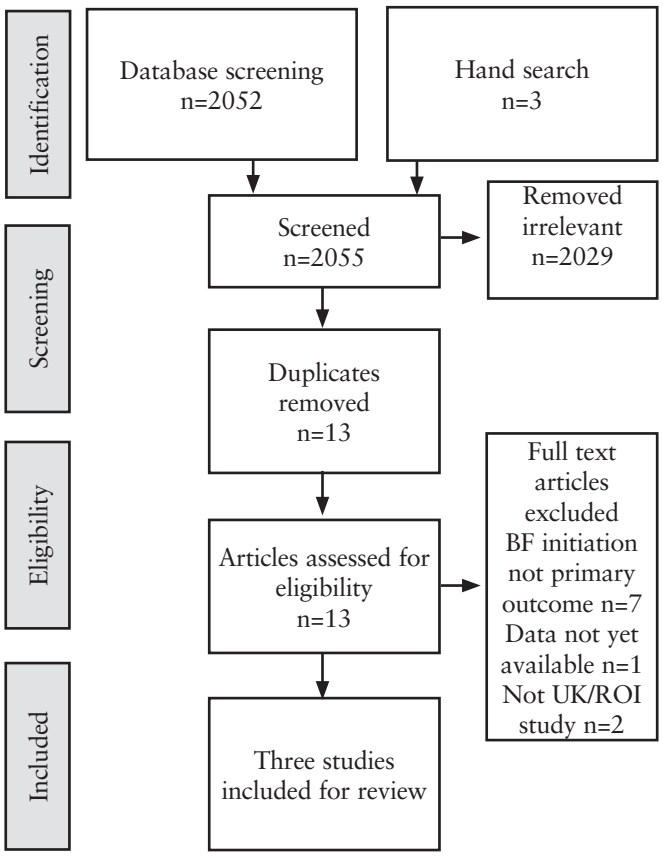
Figure 1. Systematic literature search PRISMA flow diagram



world. Ireland has the lowest reported rate of 'having ever breastfed' (55%) and the UK has the fifth lowest (81%). Breastfeeding initiation rates (within an hour of birth) in the UK are the fourth lowest (74%). The rates at six months drop to 34%, and at 12 months the UK is ranked as the lowest in the world at 0.5%. Ireland is joint second lowest at 12 months with Saudi Arabia (2%) (Victora et al, 2016).

Compared to the other three countries within the UK, Northern Ireland (NI) has the lowest initiation (64%) and exclusive breastfeeding rates (13%) at six weeks post-delivery. While there has been an increase in the prevalence of breastfeeding at six months across the UK, there has been no significant increase in NI: 14% in 2005 compared to 16% in 2010 (McAndrew et al, 2012). However, caution needs to be applied as the data collated comes from surveys with different response rates, breastfeeding definitions and original purposes.

The most recent data for NI suggest that 57% of mothers attempted to breastfeed in 2015 (Purdy et al, 2017); this compares to 73% (2015-16) in England and 58% (2015) in Ireland. By the time of hospital discharge only 46% of infants born in NI (2015-16) were breastfed, a proportion that has remained stubbornly stable for the last five years (Public Health Intelligence Unit, 2017). Contrary to the survey data used by Victora et al (2016), 6.9% of infants born in 2014-15 were still breastfed at 12 months in NI (Public Health Intelligence Unit, 2017).

A recent NI Assembly Briefing Paper reported deterrents to breastfeeding as being social and cultural attitudes, work

Table 1. PICOS table

PICOS	Description
Population	Mother and infant dyads in the UK or Ireland
Intervention	Any
Comparisons	Any
Outcomes	Initiation of breastfeeding
Study design	Experimental and original research

Table 2. Breastfeeding systematic literature review inclusion and exclusion criteria

Inclusion	Exclusion
Publication date 1 January 2005 to 21 May 2018	Research funded by a milk formula company to ensure no author competing interests led to bias
Published in peer-reviewed journal or Cochrane Central Register of Controlled Trials or index to theses	Article not available in English

related issues and the way in which breastfeeding is promoted (Betts et al, 2017). Social and cultural barriers may include religious identity (Bernard et al, 2016) and negative attitudes towards breastfeeding from family and the wider community, leading to breastfeeding mothers experiencing feelings of embarrassment, worry and shame (Bird, 2017; Leahy-Warren at al, 2017; Bennet et al, 2016).

Addressing this issue is a challenge and *Breastfeeding – a great start. A strategy for Northern Ireland 2013-2023* (DH, 2013) sets out to 'provide the necessary knowledge and skills to effectively protect, promote, support and normalise breastfeeding'. Recent exploratory work commissioned by the Northern Ireland Public Health Agency (Glass, 2016; 2015) provided evidence of the problems new mothers were experiencing. These included a lack of practical breastfeeding support and continuity of care in the postnatal period, receiving inconsistent and inadequate general practitioner information, unhelpful attitudes of hospital midwives, and women feeling pressurised into bottle feeding.

The research workstrand of The Breastfeeding Strategy Implementation Steering Group (BSISG) sought to identify effective interventions to enhance breastfeeding initiation rates. Although there are breastfeeding interventions that have demonstrated effectiveness on initiation rates, the majority of research has taken place in the US, is of variable quality, and on populations based around ethnicity or income level, which may resist further generalisation (Balogun et al, 2016). One objective of the BSISG research workstrand is to explore interventions to enhance breastfeeding initiation rates in NI. This systematic review arose as a first step from this task.

Methods

Aim of the review

The aim of this literature review was to collate and synthesise available evidence on interventions that have been evaluated to

Table 3. Risk of bias of included studies

Study	Type of study	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data assessment (attrition bias)	Selective reporting (reporting bias)	Other bias
Hoddinott et al 2006 [38]	Action research	High	High	High	High	Unclear	Low	Unclear
Muirhead et al 2006 [39]	RCT	Low	Unclear	High	Unclear	Low	Unclear	Unclear
MacArthur et al 2009 [40]	Cluster RCT	Low	Low	High	Low	Low	High	Unclear

improve breastfeeding initiation rates in the UK and Ireland, in order to develop evidence-based interventions to increase breastfeed initiation in NI. Breastfeeding initiation is defined as *'any baby who is put to the breast, even if only once'*.

Eligibility criteria
Modelled on the Cochrane PICOS (population, intervention, comparison, outcomes, study design) tool (O'Connor et al, 2016) a clearly defined review question and eligibility criteria were developed (Table 1). The search criteria were further refined by the inclusion and exclusion criteria (Table 2). The primary outcome was breastfeeding initiation from intervention studies of any design that had taken place in the UK or Ireland, not funded by milk formula companies, and published in peer-reviewed journal or the Cochrane Central Register of Controlled Trials or index to theses since 2005. This was a pragmatic decision that assumed earlier research had been captured in existing reviews and considered changes in maternity provision/ set up in UK. The search terms 'Breastfeeding', 'Initiation' and 'Intervention' were chosen as they represent the key underlying principles of *The Breastfeeding Strategy 2013-2023* (DH, 2013) (Supplementary).

Literature search
The following databases were searched from 1 January 2005 until 21 May 2018: CINAHL, Cochrane Central Register of Controlled Trials (Trials and Technology assessment), Embase, MIDIRS, Medline, ProQuest (PhD abstracts Index to theses), PsycInfo and Scopus. PubMed was not searched as these citations are now contained within Medline. A literature search strategy (Supplementary) was developed with assistance from two subject matter expert librarians. Search terms were derived from those agreed by the BSISG research workstrand. Searches were performed using both free-text terms and Medical Subject Headings (MeSH). Groups of search terms that expressed the concepts of 'breastfeeding' were combined, and the time period (2005-2018) and act of 'initiation'. Search filters were used to exclude animal studies, those not in the English language and studies completed outside the UK or Ireland. Hand searches of citation papers identified from relevant full texts were also undertaken to ensure comprehensive coverage of all relevant literature.

Literature selection
Identified publications were read independently by two reviewers (MS and JMcC) either as abstracts or full texts. Once the initial searches and screening for relevancy according to the PICOS and inclusion/exclusion criteria were completed and the data collated, those papers that were deemed suitable were distributed equally to the BSISG research project team members for verification. Details of excluded studies were collated and can be reviewed in the supplementary material on the RCM website.

Data extraction and analysis
The resulting papers emanating from the above process were then presented to four groups comprising of three BSISG research project team members for review. All potential results were therefore screened by a total of five independent reviewers. Differences in opinion were resolved through discussion to reach consensus. The methodological quality of each included study was determined by carrying out a risk of bias (RoB) assessment following guidelines in the Cochrane Handbook for Systematic Reviews (Higgins et al, 2011). RoB was assessed independently by two members of the review team. The RoB is detailed in Table 3. Data from the selected papers were extracted and are presented in Table 4.

Results

A total of 2055 papers were retrieved from the database and hand searches. Twenty-six studies remained after the exclusion of 2029 studies that did not meet the inclusion criteria following review of titles and abstracts. The majority of these studies were excluded because there was no intervention and they were not completed in the UK or Ireland.

A small number of duplicates (n=14) were also removed. Of the 12 papers under group review, one was excluded as it was a protocol (Relton et al, 2016) and eight were excluded as breastfeeding initiation was not the primary outcome (Relton et al, 2017; Bick et al, 2012; Hoddinott et al, 2012; Jolly et al, 2012; Gregson et al, 2011; Hoddinott et al, 2010; Stockdale et al, 2008 Lavender et al, 2005) (Supplementary data).

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Table 4. Characteristics of included studies

Study/ methodology/ location	Participants	Intervention	Comparison	Power calculation	Primary outcome measure	Results	Comments
Hoddinott et al [38] Action research methodology intervention Rural north east Scotland	1,218 eligible 1,155 analysed Pregnant and breastfeeding women	Antenatal group and/ or one-to-one breastfeeding peer support	National breatsfeeding data from 2000 (usual care)	Sample size calculated from baseline data of 500 would give =/-4% of true breastfeeding rates	Breastfeeding initiation at birth and duration at discharge, 1, 2, 6 weeks, and 4 and 8 months	Initiation rates increased from 53.3% to 57.3% (p=0.405). Participants who had given birth at a MLU initiation increased from 37.6% to 58.2% after intervention (p=0.001)	Increase in breastfeeding at 8-9 months in the study area compared to the rest of Scotland. Breastfeeding higher for women attending midwife-led community hospitals
Muirhead et al [39] Two armed RCT Ayrshire, Scotland	225 recruited 207 analysed 18 dropouts Women 28 weeks' gestation	Minimum of one antenatal peer-support visit, and additional visits if requested. 16 weeks' group peer support for women still breastfeeding on discharge	Usual care, i.e. community midwife for the first 10 days, health visitor after 10 days, breastfeeding support groups and breastfeeding workshops	Power calculation= 320 recruits Actual study power=87%	Breastfeeding initiation and duration	Non-significant increase in initiation rates for intervention, 54.5% vs control 53.1%	Primiparous and those intending to breastfeeding had higher duration of breastfeeding following peer support
MacArthur et al [40] Cluster RCT Primary Care Trust, Birmingham, UK	2,511 pregnant women from 66 antenatal clinics. Mainly non-white minority ethnic population	2x antenatal one-to-one breastfeeding peer support and postnatal follow up. Ethnically matched peer support	Usual care which may have included peer support	For a 6% change in breastfeeding initiation 3000 women were required for 90% power	Initiation of breastfeeding	No difference in breastfeeding initiation between intervention and control (69% vs 68.1%)	Initial antenatal contact was at 24-28 weeks' gestation and at 36 weeks' gestation; only 42% took up both sessions

Included studies

Three studies (MacArthur et al, 2009; Hoddinott et al, 2006; Muirhead et al, 2006) met all the inclusion criteria. These papers were reviewed and critically appraised by the full team (Table 4). All eligible studies were conducted in the UK: two in Scotland and one in England with a total of 3316 pregnant and breastfeeding women taking part. Although the type of intervention was not restricted, all eligible studies used an intervention of additional support with a range of approaches (one-to-one, peer and/or group breastfeeding support). RoB analysis showed an overall unclear risk for the two included randomised controlled trials (RCT) (Muirhead et al, 2006; MacArthur et al, 2009) and a high RoB for the action research study (Hoddinott et al, 2006)as would be expected for this type of study. Blinding of participants and personnel is particularly difficult in these studies as once participants are recruited they are aware of their allocation.

The evaluation of interventions to improve breastfeeding initiation rates from each of the three studies will now be discussed in chronological order.

Hoddinott et al (2006) carried out an intervention study in north east Scotland, involving newly set-up midwife or health visitor-led breastfeeding support groups. Pregnant and breastfeeding women were invited to attend the groups to offer support to each other and to observe and learn breastfeeding skills. Data were recorded by midwives and collected in two nine-month phases, namely before the intervention in 2000 (control), referred to as baseline, and

during the intervention (2001-02). Data were collected at birth; discharge from hospital; one, two and six weeks, and four and eight months post-delivery from 1155 participants in four rural postcode areas. The intervention group leaders received training to ensure consistency of the information being given to women. However, the groups were pragmatic by nature with each having flexibility regarding location, timing and style of information delivery. Breastfeeding group facilitators and participants also gave written feedback.

The primary outcome measure was breastfeeding initiation and duration measured at one, two and six weeks, and four and eight months postnatal. Initiation of breastfeeding for this study was defined as any baby put to the breast even if this occurred only on one occasion.

Breastfeeding rates increased at all-time points in the intervention group: initiation rates increased from 53.3% to 57.3% (p=0.405). Participants giving birth in district maternity units demonstrated an increase in initiation from 46.6% to 49.5% (p=0.555). However, the research team reported a significant increase of 6.8 percentage points in any breastfeeding at two weeks post-birth (p=0.017) and duration (58.2%) compared to a district general hospital (49.5%). Women reported they found the support enjoyable and helpful. This particular study was funded by Grampian Primary Care NHS Trust and The Chief Science Office, Scottish Executive Research Practice Scheme.

Muirhead et al (2006) carried out an RCT investigating breastfeeding peer support in Ayrshire, south west Scotland. Women of 28 weeks' gestation (n=225) were recruited to receive either usual breastfeeding support or usual breastfeeding support, plus, if they were still breastfeeding at discharge (n=112), up to 16 weeks (additional) supervised peer support from two trained assigned workers. Peer support included contact with the participant at least every two days by telephone or home visit. Usual breastfeeding support consisted of community midwife support up to day 10, health visitor support from day 10-20 and breastfeeding support groups and workshops. Breastfeeding initiation and duration were the primary outcome measures and data were collected via questionnaires at day 10, and at eight and 16 weeks post-birth.

In the intervention group peer support workers with personal breastfeeding experience met participants at least once during their pregnancy to provide antenatal peer support. In the postnatal period they only made contact with women once they had been discharged from hospital and therefore had no involvement with initiation. Initiation was not defined in this study. While breastfeeding rates at all time points were higher for the intervention group there was no significant difference reported for any outcome measure between groups. Peer support was found to be more successful for first time mothers and those who were intending to breastfeeding. This study was funded by Ayrshire and Arran Health Board.

MacArthur et al (2009) carried out a cluster RCT in Birmingham, with a multi-ethnic population, comparing usual care and usual care plus one-to-one support at 24-28 and 36 weeks' gestation by trained peer supporters and postnatal follow-up. Usual care consisted of breastfeeding information and advice from a midwife. Participants (n=2,511) were multi-ethnic, with 9.4% white and British.

Women in the intervention group (n=1371) received antenatal breastfeeding advice and if they initiated breastfeeding, the trained peer support worker continued to give postnatal support. The primary outcome was initiation of breastfeeding, which was defined as '*having had breastmilk at any time from birth until discharge from hospital*', and information was collected via computerised hospital records. There was a slight increase in the initiation of breastfeeding in the intervention group, although not statistically significant (69% vs 68.1%, p=0.4). This study was funded by Heart of Birmingham Teaching Primary Care Trust.

Discussion

The findings from this systematic review indicate that there is currently limited evidence for interventions implemented to increase the initiation rates of breastfeeding in the UK and Ireland, also reported by Sutton et al (2016). The lack of high-quality evidence in this area warrants further attention and although the focus of this review was specifically the UK and Ireland, it does represent a 13-year period where only three trials focusing on improving breastfeeding initiation have been conducted. The challenging initiation rates across the UK and Ireland, and specifically in NI, which increased only very slightly in that time period, highlights the need for further investment and development of interventions to improve breastfeeding initiation rates.

The three studies included here have all investigated the effects of antenatal peer support. Hoddinott et al (2006) demonstrated some positive findings for antenatal group and one-to-one support from health professionals and breastfeeding women. In the study by Muirhead et al (2006), although peer support workers who had personal breastfeeding experience were involved with participants antenatally, they only made contact postnatally to provide support following discharge from hospital. The study by MacArthur et al (2009), which intended to test antenatal peer support by women who had personal breastfeeding experience and were ethnically and linguistically matched, had several issues that may suggest implementation failure. There was insufficient exposure to the intervention, as 42% of participants had two sessions (three were planned) and the ethnic group of the mother and peer supporter were not matched as intended. The findings of MacArthur et al (2009) may not be easily transferred to many areas of the UK and Ireland, as the culture and ethnic composition in Birmingham is very different in comparison.

This is important in understanding cultural differences and contexts in pregnancy and breastfeeding. Women not native to the Republic of Ireland have been found to be more likely to breastfeed than their native peers (Castro et al, 2014). Given that the cultural diversity of NI is rapidly changing, this may be an important consideration for future local studies. Non-white women are more likely to breastfeed at discharge than white women (Public Health Intelligence Unit, 2017; Ladewig et al, 2014). However, the risk of acculturation and

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dropping breastfeeding rates among those communities, as evidenced in mainland UK, is of concern (Choudhry and Wallace, 2012; Hawkins et al, 2008).

Hoddinott et al (2006) was the only study in this review to identify that breastfeeding support had a significant impact on breastfeeding initiation. However, this result was only for women giving birth in midwife-led units (MLU). Hoddinott et al (2006) reported a 'pragmatic' approach to group support together with one-to-one peer-support increased breastfeeding (mixed and exclusive) at two weeks postnatally. Women who had their babies in a MLU and postnatal care in a MLU were more likely to breastfeeding ($p<0.001$ for initiation and $P=0.007$ for breastfeeding at two weeks). Schroeder et al (2017) also reported that women giving birth in a freestanding midwife-led unit (FMU) had 'higher rates of established breastfeeding' and that such units are financially cost-effective.

This is important in the NI context as MLUs are now more readily available, there being eight MLUs – five alongside midwife-led units (AMU) and three freestanding midwife-led units (FMU). Following publication of the regional guidelines on admission to MLU (GAIN, 2018) there is potential to impact on breastfeeding initiation rates (Schroeder et al, 2017; Healy and Gillen, 2016; GAIN, 2018). However, it must be acknowledged that women who choose to give birth in a MLU are often better educated, less deprived and more informed, thus more likely to breastfeed or attempt breastfeeding, though there is some data indicating that birthing in a MLU may lead to unintended initiation of breastfeeding (Sperlich et al, 2016; GAIN, 2018).

For studies involving peer support workers, the timing of interventions may be an important factor for future research. Peer support personnel met women antenatally in each of the three studies. However, the support provided to participants in the studies by Muirhead et al (2006) and MacArthur et al (2009) consisted of one or two meetings antenatally and commenced postnatally once breastfeeding was initiated. In the study by Hoddinott et al (2006) more frequent attendance at antenatal groups was more likely to lead to higher rates of breastfeeding. Women in this study who did not initiate breastfeeding were no longer permitted to attend. It may be that the social aspect of the group and the fear of exclusion had an effect on women's motivation to initiate breastfeeding.

Primiparous women and women intending to breastfeed were more likely to initiate breastfeeding (Muirhead et al, 2006), while previous breastfeeding experience and an intention to breastfeed are predictors for future breastfeeding behaviour (Hoddinott et al, 2010; Bolling et al, 2007). Therefore, while all women must be able to benefit from breastfeeding initiatives, focusing on primigravidas may pay dividends for future pregnancies and building a culture where breastfeeding is the norm. In turn, the impact of seeing other women breastfeeding, which appears to increase the likelihood of breastfeeding, may be the catalyst for raising breastfeeding rates in NI (Hoddinott et al, 2010). Seeing the performance of breastfeeding behaviour from other mothers online, in video clips or at local community groups has untapped potential. Evidence of the impact of 'seeing' to believe, as in occularcentric theory, requires robust intervention research to obtain evidence of impact (Sinclair, 2011). It would be worth considering how to harness the effects of such an approach to assist with achieving the goals and timelines set within the NI breastfeeding strategy by undertaking research using theories about human behaviour and motivation.

The evidence identified from this review forms the basis of future research in this area, and feeds into the Department of Health's *Breastfeeding – a great start. A strategy for Northern Ireland 2013-2023* (2013). In Ireland, the government policy, *Breastfeeding in a Healthy Ireland: a five-year strategic action plan 2016-2021*, has been launched with similar aims and objectives as the NI breastfeeding strategy to 'support research to inform the promotion, support and protection of breastfeeding in Ireland' (Hourigan et al, 2016). As part of this initiative, a review of reviews focusing on breastfeeding interventions to promote breastfeeding initiation, exclusivity and duration has been published by the Health Research Board (Sutton et al, 2016). This concluded 'there is evidence that education, counselling and support have a major role to play in the promotion of breastfeeding'.

This review has highlighted that evidence for increasing breastfeeding in the UK and Ireland is currently limited and of low quality. Sutton et al (2016) and Balogun et al (2016) investigated the effect of professional and non-professional breastfeeding support interventions to increase breastfeeding initiation and also concluded there was limited evidence and data available was of low quality. In the context of this review it is important to note that Muirhead et al (2006) and MacArthur et al (2009) were included in Balogun's (2016) systematic Cochrane review but not Hoddinott et al (2011) (as it was not an RCT). Sutton et al (2016) is a systematic review of systematic reviews. Both of these key outputs and their recommendations for future research requirements, such as interventions designed to influence public attitudes towards, and support for, breastfeeding are supported by our review which was taking place unknowingly at the same time. Balogun et al (2016) recommended developing studies in low and high-income settings, over various timeframes, and investigating the effectiveness of interventions initiated prior to conception or during the antenatal period. They proposed designing interventions based on health education, early and continuing mother-infant contact and developing initiatives to help women overcome societal barriers to breastfeeding. They stated the importance of clearly defined outcome measures, as we have also recommended.

In order to go some way to addressing the paucity of evidence, the authors of this systematic review have also included a description of the main features of some studies identified as part of this review process but not included, as they were outside the remit of the pre-specified PICOS and inclusion/exclusion criteria (Supplementary data). This approach was ratified through discussion with members of the BSISG team who felt that some of the research was unique and valuable to the wider research communities, in particular the work by Stockdale et al (2008) as it was a funded experimental study carried out in NI.

Limitations

The review was uniquely focused on UK data as the team had a specific objective to identify UK breastfeeding research interventions to establish baseline data. Owing to the poor quality of the studies included and the low number, any quantitative summary of the results was not possible.

Conclusion

This review of UK and Ireland-based interventions identified three studies that focused on improving breastfeeding initiation rates, all of which implemented either peer and group support for pregnant women/breastfeeding women. Currently, there is insufficient evidence to confirm that such interventions offer any significant or measurable impact on raising the breastfeeding initiation rates. The role of timing and format of delivery of peer support still remains unclear.

New evidence and strategies are required to facilitate women, their families and healthcare providers in making informed choices with regard to initiating and sustaining breastfeeding. Increased efficiency in the health service is a priority and is dependent on an effective and efficient evidence-base. Developing interventions that can improve breastfeeding rates in the UK and Ireland will pay dividends.

To develop new evidence-based breastfeeding interventions further investment in research is required. This ought to include more theory-based interventions specifically designed to explore factors that are likely to influence women's decision-making with regard to breastfeeding.

Future systematic reviews may investigate successful interventions carried out in other countries, with careful consideration given to the similarity of the demographic profile and culture of the UK and Ireland populations.

We propose every effort is made to include women on the island of Ireland and in the UK to join study arms of large prospective breastfeeding intervention trials to ensure inclusivity, cultural relevance and robust methods of data collection. Furthermore, we are strongly committed to a belief in the value of listening to, and working with, advocacy groups including maternity services liaison groups, the National Childbirth Trust, La Leche League, and other established and emerging online breastfeeding support communities.

We also need to work on increasing the understanding of the general public, partners, grandparents and teachers about key breastfeeding issues so that breastfeeding becomes normalised.

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