**Title:** What positive gains do women obtain from peer support interventions and what barriers preclude higher initiation and duration of exclusive breastfeeding? A systematic review.

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Aim of the paper:
To examine current literature surrounding variables which may affect the initiation and maintenance of breastfeeding.

Abstract:
Now recognised as a worldwide public health issue the significance of promoting and encouraging exclusive breastfeeding has been acknowledged by The World Health Organisation (WHO) and The United Nations Children’s Fund (UNICEF). Documented policies regarding the importance of facilitating the support of breastfeeding women is currently receiving worldwide recognition (WHO 2011, WHO and UNICEF 2003). This literature review will examine the provision of support mechanisms for breastfeeding mothers focusing upon peer support in encouraging initiation and maintaining exclusivity of breastfeeding; consideration will also be given to any barriers that may exist in preventing higher success rates.

Summary statements
What is already known about this topic
- Sustaining breast feeding is a worldwide significant public health issue
- The World Health Organisation and UNICEF have policies to support breastfeeding
- There are barriers in initiating and sustaining breastfeeding

What this paper adds
• Highlights the barriers which prevent initiation and maintaining exclusive breastfeeding
• A variety of methods have been utilised in an attempt to improve the initiation and maintenance rates
• Peer support can have a major impact on the initiation and maintenance of breastfeeding
• Cultural and educational issues need to be considered when planning a support network

Implications for practice and/or policy
• Improve pre-natal awareness
• Developing more effective public health strategies to encourage initiation and maintenance of exclusive breastfeeding

Keywords

Peer support, barriers, exclusive and breastfeeding.

Introduction

Now recognised as a worldwide public health issue the significance of promoting and encouraging exclusive breastfeeding (EBF) has been acknowledged by The World Health Organisation (WHO) and The United Nations Children’s Fund (UNICEF) WHO 2011, WHO and UNICEF 2003). This literature review will examine the provision of support mechanisms for EBF mothers focusing upon peer support in encouraging initiation and maintaining exclusivity of breastfeeding; consideration will also be given to any barriers that may exist in preventing higher success rates. Cultural and educational issues may have a significant impact on the initiation and maintenance of EBF. These are an example of the factors which require consideration when initiating support groups, networks and/or activities which aim to address this significant public health issue.

Background
Policies exist which aim to highlight the importance of facilitating the support of breastfeeding women (WHO 2011, WHO and UNICEF 2003). There has been significant proliferation in policy to help address the breast feeding rates. Currently accepted as an international health priority the WHO (2011) recommends women in the UK breastfeed their babies exclusively for the first six months of life devoid of water or alternative fluids. The Department of Health (DH 2003) has particularly emphasised this in order to obtain the best possible health benefits for both mother and baby. There is a necessity to increase the initiation and duration of breastfeeding within diverse communities; improvement would positively impact on other areas of concern such as coronary health and the reduction of ovarian and breast cancers (Maternity Care Working Party 2006). Curtis (2007) suggested peer support schemes vary considerably within the UK and worldwide; the experience and training of volunteers also fluctuates therefore leading to inequity in service provision.

**Method**

Elton B Stephens Company (EBSCO) Medical Databases were accessed in order to gain entry into additional indexes. Three were selected: Cumulative Index to Nursing and Allied Health Literature (CINHAL) Plus; Medline and the American Psychological Association (APA) (PsycINFO appropriately. A search was carried out using the key words “Peer Support”, “Breastfeeding” and “Research”. Ten articles were found, all strongly correlating to the reviews aims. An additional search through the
Royal College of Nursing was executed however it did not provide any further studies as following removal of duplicates the remainder failed to address the aims of the review. Six empirical research studies were accepted and incorporated. Each research article was critiqued using the McMaster critical appraisal tool (see appendix 1) for qualitative studies produced by Letts et al (2007).
## Results.

*(Table 1). Six Empirical Articles elected for review.*

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<tr>
<th>Author.</th>
<th>Title</th>
<th>Research Method</th>
<th>Results</th>
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<tr>
<td>Karacam (2008). Turkey.</td>
<td>Factors affecting exclusive breastfeeding of healthy babies aged zero to four months: a community-based study of Turkish women.</td>
<td>Qualitative. Cross sectional study. Data collected using a questionnaire. Sample included 514 individuals recruited by the convenience sampling method.</td>
<td>Statistically, mothers with higher educational attainment and in employment prior to maternity leave were more likely to EBF.</td>
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<td>Haddinott et al (June 2006b). Scotland.</td>
<td>One-to-One or Group-Based Peer Support for Breastfeeding? Women’s perceptions of a Breastfeeding Peer Coaching Intervention.</td>
<td>Qualitative data gathered &amp; examined from primary focus group. 21 semi-structured interviews and 31 coaching group annotations and respondents giving reasons in reply to an open question for not choosing a personal coach.</td>
<td>Groups more popular, a socially acceptable environment normalized breastfeeding, improved confidence and the sense of control. Provided support enabling women to make own decisions with regards to feeding.</td>
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<tr>
<td>Cowie et al (2011). Australia.</td>
<td>Using an online service for breastfeeding support: what mothers want to discuss.</td>
<td>Content analysis from 3 successive day’s conversations on a discussion board. Statements coded and examined for themes used. The categories of topics utilised were coded and developed more by the primary author using the first one hundred posts, then reviewed by secondary authors to ensure there were enough codes to cover topics and the codes used identified topics accurately.</td>
<td>Provided emotional support and participants were able to express emotions. Less frequent giving advice and opinions. Generic parenting topics discussed; a range of breastfeeding issues and discussions around social support.</td>
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<td>Hoddinott et al (March 2006a). Scotland.</td>
<td>Effectiveness of a Breastfeeding Peer Coaching Intervention in Rural Scotland.</td>
<td>Intervention study in 4 geographical areas rural Scotland. Feeding outcomes birth and hospital discharge, 1,2 &amp; 4 weeks and 4 &amp; 8 months were collected for 598 of 626 women – live births over period of 9 months. Groups met in 5 locations, control data from 10 other health board areas in Scotland for comparison. Data collected by means of 266 group diaries.</td>
<td>There was a significant increase in breastfeeding of 6.8% at 2 weeks after birth compared to a decline of 0.4% in rest of Scotland. Both coaching methods increased initiation and duration of breastfeeding in an area with below average breastfeeding rates.</td>
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(Table 1). continued.

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<td>Curtis et al (2007). Doncaster.</td>
<td>The peer-professional interface in a community-based, breastfeeding peer-support project.</td>
<td>Qualitative study design, data generated through 3 separate focus groups: 1. with volunteers, 2. with mothers, 3. with health professionals. Assisted by 2 researchers, one aided discussion other recorded interactions and group dynamics. Focus groups conducted in convenient familiar location and lasted between 1-1.5 hrs. 2 key themes immerged: advantages of working with the support groups and boundaries to good working relationships.</td>
<td>Improved self esteem, personal development and enhanced social support of the volunteers. Health professionals were able to share workload, gaining empirical and cultural knowledge which developed innovative ways of working.</td>
</tr>
<tr>
<td>Ingram et al (2008). Bristol.</td>
<td>Exploring the barriers to exclusive breastfeeding in black and minority ethnic groups and young mothers in the UK.</td>
<td>Framework analysis compared responses from each topic or theme from each group. Basic demographic information collected from each woman, discussion about family size &amp; how each child was fed from birth. Definition of exclusive breastfeeding explained so everyone understood what was being discussed. Focus groups, questionnaires and recorded discussions used to collect data. Transcripts coded and analysed using a thematic approach.</td>
<td>Women from minority ethnic groups exclusively breastfeed for longer than young single or white mothers. Barriers - cultural, knowledge, confidence.</td>
</tr>
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Discussion

Due to recommendations by WHO, UNICEF (2003) and the DH (2003) the government is currently dedicated to promoting and increasing EBF. Primary Care Trusts are expected to raise initiation rates by at least 2% per annum concentrating specifically on women from deprived communities (Dykes 2005). The research articles analysed adopted a qualitative methodology involving the search for knowledge and awareness of human experience; opinion, incentives, intentions and behaviour which are all key aspects when investigating EBF (Parahoo 2006).

Although there is evidence surrounding initiation and duration of breast feeding little has been undertaken to address the impact peer support has on sustaining EBF which yields a weak evidence base; however comprehensive interventions have proved to be beneficial with some groups therefore encouraging the use of illustrative studies (Hoddinott et al 2006b).

Key themes appeared to influence initiation and duration of EBF although results varied between individual groups within the studies. It was evident that barriers exist which inhibit breastfeeding behaviours for example lack
of educational, cultural and societal perspectives. In addition it was clear that there were methods of support the participants preferred and considered beneficial.

**Women’s experience of breastfeeding support**


An action research methodology was utilised by Hoddinott et al (2006a) and is often adopted when a change in behaviours or practice is required (Parker 2006). Strengths of this study include the comprehensive data collection and dedicated contributions by front line health care professionals and women within the communities. However the study was weakened by the lack of randomisation of involvement which meant the researchers were unable to link mothers attending the groups directly to the outcome of the data. Hoddinott et al (2006a) found support received in a social setting was important to women; it is believed breastfeeding is normalised within this environment; relationships with peers are quickly established and women found they were able to communicate their anxieties to others going through similar experiences. Enhanced social
support; increased self-esteem and personal development were also expressed in results from Curtis et al (2007) and Cowie et al (2011); both researchers used content analysis where themes and sub themes were coded and collected from the data. Although outcomes look encouraging there was a risk of bias; for example, data collected by Curtis et al (2007) was managed by health professionals directly associated with the study; participants became concerned when realising some health professionals only seemed interested in gathering positive feedback from the discussions and appeared to silence some contributors (Curtis et al 2007). A similar situation was found with the study performed by Hoddinott et al (2006b). Bias was also indicated when health professionals recognised possible benefits from such support schemes; for example lightening their workload; others appeared to be threatened by non-professional peer supporters and felt boundaries were being challenged (Curtis et al 2007). The limitations of these studies are acknowledged, it is important to realise the scope of such small descriptive investigations in that it is difficult to generalise them; although the theoretical aspects may be used generally to structure frameworks for future research.

Hoddinott et al (2006b) conducted their study in a rural location where breastfeeding rates were below average; semi-structured interviews and responses to an open ended question were coded and analysed with the aim of discovering which type of support was preferred. Hoddinott et al (2006b) similar to Curtis et al (2007) found the study was open to
potential bias as the health professionals directly associated with the study collected the data; other limitations were due to the size, location and lack of randomisation of the intervention. When comparisons were made between studies the results revealed women generally preferred support offered by groups rather than receiving one to one support (Hoddinott et al 2006a, Hoddinott et al 2006b and Curtis et al 2007). Group support appeared to give mothers more flexibility and choice, women also experienced a sense of control enabling them to make their own decisions about breastfeeding in their own time without feeling pressured whereas one-to-one support was found to be more intense (Hoddinott 2006b).

The on-line discussion board analysed by Cowie et al (2011) appeared to provide access to support for different groups of mothers who found it difficult to attend face to face meetings; working mothers; women with larger families and young single mothers were amongst the participants accessing the twenty four hour availability of this service. This group of participants were seeking emotional support rather than general or breastfeeding advice. This method of support was popular with young mothers; although inconclusive as to whether this was due to the way electronic communication has evolved or as Ingram et al (2008) suggested it may be a cultural influence. Young mothers stated they felt judged by older peers and married couples when attending face to face group sessions; two participants experienced support from a group
organised specifically for younger mothers and believed it was important to gain support from others their own age; embarrassment seemed to be an issue with young inexperienced mums (Ingram et al 2008). Although breastfeeding support was found to increase initiation and duration one cannot assume that this was solely responsible for improving breastfeeding rates.

**Influence of culture**

The provision of breastfeeding support groups is endorsed by the National Institute for Health and Care Excellence (NICE 2008) and the inclusion of minority groups is vital. Culture plays an important role in establishing and maintaining breastfeeding; although many cultures support breastfeeding and require little intervention from external peer groups (Ingram et al 2008). Diverse cultures appear to have plenty of enthusiasm towards peer support however the information and encouragement they receive is varied. Ingram et al (2008) suggested mothers from ethnic minority groups anticipated support in the wider remit including discussions in relation to other baby focused themes and general support not just breastfeeding support.

Cowie et al (2011) concurs, mothers using the on-line discussion board also addressed other baby related issues within their dialogue and offered support to other group members. Ingram et al (2008) used a thematic and framework approach to examine barriers to EBF. Although data collected was limited due to the small number of participants recruited
results confirmed women from minority ethnic groups breastfeed more exclusively for a longer period of time in the UK than white or single young mothers (Ingram et al 2008). The study by Ingram et al (2008) incorporated black and ethnic minority groups consisting of Somali; South Asian; Afro-Caribbean and young mothers. Karacam (2007) concurs with Ingram et al (2008) and found Turkish women also exclusively breastfed their babies for a longer period of time; this illustrates how a strong culture may influence behaviours. It may be suggested that culture and family influences could play an important role within these groups and affect the uptake of support from peer groups.

Some minority groups were content attending support units that were not culture specific although still considered their own communities beliefs and influences; whilst other groups would prefer individual support units of their own (Ingram et al 2008). Results from both Ingram et al (2008) and Cowie et al (2011) interpreted data suggesting young single white mothers were particularly vulnerable and preferred seeking support from peers of similar age and backgrounds. South Asian mothers agreed breast milk was best and were more likely to exclusively breastfeed without the support from peers; it appeared the main obstacle was feeding in public due to their culture (Ingram et al 2008).
For the minority ethnic groups the access to peer support is not the main influence initiating breastfeeding practices, this appears to come from older women in the community, however the diminutive numbers restrict the outcome of these studies. Ingram et al (2011) discovered peer and breastfeeding support groups have their part to play in initiating EBF; however culture undeniably influences breastfeeding practices and the factors affecting EBF vary considerably within diverse communities.

Health promotion within communities is vital in order for initiation and duration of breast feeding rates to increase; health professionals must develop a comprehensive understanding of the strengths and requirements of the communities including the diverse cultural influences. Health promotion models that address diverse communities, such as the one proposed by Beattie (1991/2003) focuses primarily on community development may be utilised (Naidoo and Wills 2009). By fostering community development greater support for those attempting EBF may be facilitated.

**Education**

Several women appeared to be concerned about the level of education of the volunteers and on occasions received conflicting advice; due to concerns it has been revealed some mothers preferred the involvement of a health professional in order to receive evidence based information
(Hoddinott et al 2006b; Ingram et al 2008; Curtis et al 2007, Karacam 2007). Curtis et al (2007); Ingram et al (2008) and Hoddinott et al (2006b) all agreed that volunteer peer supporters required some training and education in order to have the ability to support mothers with their breastfeeding needs. Curtis et al (2007) discovered that support schemes could assist volunteers in developing skills and knowledge that would allow them to resume employment, perhaps undertaking responsibilities in alternative health and social care domains in the future. Ingram et al (2008) and Karacam (2007) concur with regards to training; link-workers require refresher courses to update their knowledge systematically to assist health professionals in distributing evidence based information on the subject of breastfeeding to minority groups. In particular young mothers wanted educational sessions to be delivered by supporters with sufficient knowledge and expertise; however would still prefer access to a health professional for more theoretical and other health related issues (Ingram et al 2008).

Karacam (2008) suggested women with a higher educational status or who were in employment were more likely to initiate breastfeeding practices and feed exclusively for longer, no major discussion around this area was found in the other studies; although the level of education in groups of young mothers was indicated in the research carried out by Ingram et al (2008).
Conclusion

It is evident that there are issues which hinder the initiation and duration of exclusive breastfeeding. Major challenges exist in tackling this public health issue. Additional research and evidence is required to formulate constructive health promotion ideas that will impact on exclusive breastfeeding rates. Further research could examine health promotion interventions. These would need a full year follow-up to examine patterns regarding sustaining exclusive breast feeding. Qualitative studies where interviews are used to determine participants’ beliefs regarding exclusive breast feeding could be ascertained but in addition, reasons for failing to continue could be established. This is crucial information which could help to drive service provision and support those who are likely to withdraw from exclusive breast feeding.

All the studies demonstrated some positivity regarding peer or family support; this appeared invaluable to the majority of participants. Peer support group interventions performed by Hoddinott et al (2006a); Hoddinott et al (2006b); Curtis et al (2007) and Cowie et al (2011) illustrate constructive evidence in facilitating exclusive breastfeeding. Although the majority of the studies had limitations due to small numbers of participants there is scope to undertake larger comparative investigations in the future. Cultural barriers still exist, although it appears that minority groups and cultures outside the UK have higher initiation and duration rates (Ingram et al 2008, Karacam 2008). Research
needs to be expanded to incorporate the culturally diverse requirements of women from minority groups and perhaps those marginalised by society (Ingram et al 2008, Karacam 2007). This information is vital so that responsive services may be developed in order to determine how we can support these groups of mothers when setting up new breastfeeding services as they may be less likely to attend support groups and who may find accessibility a challenge.

It was evident that, in general, women welcomed breastfeeding support and specifically preferred group support. Several reasons were identified including verbal and visual encouragement; ability to select peers based on good communication and trust; experiencing positive social interaction which built confidence and improved self-esteem (Hoddinott et al 2006b, Ingram et al 2008). Barriers existed regarding culture although there are both positive and negative influences in this domain.

In addition the educational status of peer supporters may need to be considered so that women feel confident in the fact they are receiving sound evidence based advice and that it is consistent between peer supporters and health professionals (Hoddinott et al 2006a, Hoddinott et al 2006b, Curtis et al 2007, Ingram et al 2008).
There is optimism in relation to breastfeeding peer support schemes being introduced; in collaboration with the DH; WHO; UNICEF and NICE. High priority has been given in order to raise exclusive breastfeeding rates whilst valuing diversity, motivating community empowerment and ensuring the inclusion of all groups (Dykes 2005). The results of the pilot study which surrounds payments for breastfeeding is awaited (Middleton 2013), but what one should be assured of is that more innovative ways of addressing exclusive breastfeeding need to be introduced in order to address this public health challenge.

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