Peer support for breastfeeding continuation: an overview of research

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This article summarises the findings of recent key reviews relevant to breastfeeding peer support (BPS) interventions that aim to enable breastfeeding continuation in the UK. The discussion highlights findings relevant to policy makers, practitioners and representatives of voluntary agencies seeking to interpret the current evidence base and to design or deliver models of support that are effective and acceptable to mothers.

Aims

Drawing on four recent reviews, this overview aims to address the following key questions relevant to the design of peer support interventions to enable breastfeeding continuation in the UK:

• What is the evidence for effectiveness of BPS in terms of extending breastfeeding durations?
• What components of design or implementation are important for effective delivery of BPS?
• What are the characteristics of BPS interventions that mothers value?

Background

The World Health Organisation (WHO) recommends that infants be exclusively breastfed until six months of age, with breastfeeding continuing alongside the introduction of solid foods until at least two years of age.1 While around four-fifths of UK mothers initiate breastfeeding, by six weeks only 55% are still breastfeeding and by six months the percentage giving their babies any breastmilk falls to 34%. Overwhelmingly those who stop breastfeeding in the early weeks and months do so before they had intended,2 representing a high level of disappointment. Survey data going back 20 years indicates that steeply declining continuation curves for breastfeeding have been a feature of UK infant feeding rates for decades;34 international comparison indicates that continuation rates are higher in several other developed countries, most strikingly in Scandinavia, where around 80% of Norwegian mothers3 and 68% of Swedish mothers4 are breastfeeding at six months, but also in Canada,7 Australia6 and Hungary5 where survey data indicate that ‘any breastfeeding’ rates at six months are more than double those of the UK. In the UK, surveys of infant feeding behaviours indicate a persistent social gradient. Mothers who are older, from higher socio-economic groups, or with more education, have higher breastfeeding initiation rates, longer durations of breastfeeding and are more likely to delay introduction of formula milk and/or solid foods.2

WHO’s Global Strategy for Infant and Young Child Feeding recommends national governments take forward BPS interventions as part of a package of measures aimed to improve breastfeeding outcomes. Specifically, WHO recommends that national governments develop ‘community-based mother-to-mother breastfeeding support groups’ and ‘lay and peer counsellors’ to enhance existing services.10 In the UK this recommendation is reflected in guidance from the National Institute of Health and Clinical Excellence (NICE).11,12,13 and peer support for breastfeeding is part of NHS commissioning guidance for England.13 Implicit in this recommendation is an understanding that breastfeeding is a complex biopsychosocial process and that informal networks are helpful to mothers in enabling skill-learning, problem solving and psychological adjustment, and in supporting mothers’ decisions to breastfeed practically and socially over time.

The evidence for the role of informal social networks in enabling decisions to initiate and continue breastfeeding is extensive. Numerous studies confirm that attitudes, perceptions and experiences of immediate family members and informal social networks have a powerful influence.14,15,16,17,18,19,20

A review of the literature on differences between mothers who continue to breastfeed until six months and those who stop indicated that feeding intention and self-efficacy is inter-related with factors relating to social support.21 Findings from the 2005 Infant Feeding Survey indicated that nine in 10 mothers who said that most of their friends breastfed their babies also intended to breastfeed their own baby, compared to 57% of mothers whose friends did not generally breastfeed.22 Seeing breastfeeding as part of everyday life seems to have an impact on behaviour. A Scottish study found that women who responded positively to recent experiences of seeing another woman breastfeed were more likely to breastfeed themselves.23 Similarly, but from another perspective, a recent review found that several factors were associated with women preferring, or deciding, to formula feed. These included: seeing formula feeding as normal, associating breastfeeding with negative body images, seeing formula feeding as more convenient and breastfeeding as difficult, and feeling anxiety about breastfeeding.24 In addition, it seems that mothers’ confidence and motivation to breastfeed can be undermined by negative or mixed messages from their social networks and from health professionals.25 A recent longitudinal study of the role of ‘significant others’ in relation to feeding outcomes indicated that there is a ‘complex interplay’ between women’s decision-making processes and the influence of others within their immediate social network.26

In her concept analysis of ‘peer support’ interventions, as applied to a wide range of health topics, Dennis27 notes that peer support interventions seek to extend ‘natural embedded social networks and complement professional health services’. She highlights this distinction between ‘embedded’ and ‘created’ social network members, but also indicates that support from peers occurs along a continuum from ‘lay’ to ‘professional’ (Figure 1). Dennis defines ‘created’ peer support as:

‘the provision of emotional, appraisal and informational assistance by a created social network member who possesses experiential knowledge of a specific behaviour or stressor and similar characteristics as the target population.’

Dennis characterises emotionally supportive interactions as including ‘caring, encouragement, active listening, reflection and reassurance’; informational support is ‘the provision of knowledge relevant to problem-solving’, while appraisal support enables self-evaluation, providing affirmation of emotions, thoughts and behaviours. Dennis notes that peer support interventions may be expected to work because created peers who provide these three forms of assistance ‘understand the target population’s situation in a way that naturally embedded social networks may not’. Dennis identifies three theoretical mechanisms for behaviour change which, she argues, underpin peer support interventions. First, she suggests that impact may occur through ‘direct effect’; the peer support directly influences outcomes, for example by enabling social integration, access to information or through provision

of informal health care. Second, the impact may be via a ‘buffering effect’; that is, the peer support protects individuals from potentially harmful influences or stressors. Third, impact may occur as a result of a ‘mediating effect’, so that peer support indirectly influences health outcomes by changing emotions, thoughts and behaviours. Dennis notes that interactions with a peer supporter can be one-to-one, group based, or virtual. It is notable that the mechanisms identified by Dennis in her concept analysis focus primarily on the impact of peer support at an individual level. Mechanisms that might relate to the impact of peer interventions on wider social networks, for example mechanisms relating to ‘diffusion of innovation,’ are not foregrounded.

Dennis suggests that interventions involving created peers have become increasingly attractive as a health promotion tool in the context of shorter hospital stays and reduced opportunities for personal interaction between healthcare professionals and their clients.

**Method**

Four key sources of evidence relevant to the topic were identified for inclusion. These were a systematic review and meta-regression of UK-based randomised controlled trials of peer support for breastfeeding continuation by Jolly et al., a Cochrane review of international studies of ‘additional’ breastfeeding support by Renfrew et al., Dykes’s evaluation of 26 peer support interventions in the UK that identified recommendations for implementation, and a qualitative research meta-synthesis about mothers’ perceptions of breastfeeding support by Schmied et al.

**Results**

Key findings from these four high-quality reviews relevant to peer support interventions for breastfeeding continuation in the UK are presented and discussed in turn.

**Findings from UK-based randomised controlled trials for breastfeeding continuation (Jolly et al, 2012)**

This recent international systematic review of randomised controlled trials (RCTs) studied the impact of BPS on two breastfeeding outcomes: exclusive breastfeeding and breastfeeding continuation rates. The review covered 17 studies that included exclusive breastfeeding or breastfeeding continuation as an outcome measure, including four from the UK. Fifteen studies were judged to have data suitable for quantitative synthesis through meta-regression. Meta-regression is a statistical technique for pooling data from studies in systematic review, which builds on the statistical technique of meta-analysis, but is better suited than meta-analysis to exploring heterogeneity among included studies. The technique is intended to be hypothesis generating; linear relationships identified should not be taken as proof of causality.

Data from three UK studies, by Graffy et al., Muirhead et al. and Jolly et al. were judged suitable to combine through meta-regression. Evidence from the fourth study, by Watt et al., contributed to the narrative review but the data were not suitable for meta-regression. First contact with mothers in the Watt study was not until babies were around three months old. There must, therefore, be some considerable doubt as to whether it has much to contribute to scientific understanding of interventions to support breastfeeding continuation since in the UK the rate of breastfeeding discontinuation is steepest in the early days and weeks after the birth.

The three UK studies included in meta-regression are different from each other in many ways. Intervention goals for the three included studies varied; two interventions were intended to influence initiation rates as well as continuation rates. In terms of intervention design, all three of the interventions involved one-to-one contact between mother and supporter either by telephone or face-to-face; none of the studies looked at group-based support. For all three interventions mothers were recruited through general practices; one intervention was sited in an area serving a multi-ethnic, socio-economically disadvantaged population and...
Another\textsuperscript{24} was sited in an area with lower than average breastfeeding rates. In two studies peer supporters were trained in sessions over a period of weeks.\textsuperscript{24,26} The third used NCT breastfeeding counsellors.\textsuperscript{27} The study using NCT breastfeeding counsellors excluded mothers who had previously breastfed or intended to contact a breastfeeding counsellor as well as those who did not plan to breastfeed;\textsuperscript{23} the exclusion rate in this study was around 60%. In terms of timing, all three of the UK-based interventions included in meta-regression involved antenatal contact and were community-based; none involved contact in hospital in the immediate postnatal period. In two of the studies telephone support predominated over face-to-face contact.\textsuperscript{33,34} Two of the studies were judged to be low intensity and were entirely\textsuperscript{33} or predominantly reactive\textsuperscript{39} in the postnatal period. The reactive intervention using NCT breastfeeding counsellors had very low uptake; only 63% of the intervention group made contact with the counsellor, and only 20% received a face-to-face visit.\textsuperscript{33} For one study poor record-keeping meant that it was difficult to assess uptake; only 62% of mothers were recorded as receiving any postnatal contact;\textsuperscript{23} the same study reported issues of intervention fidelity, with antenatal visits delivered predominantly in the clinic rather than at home.\textsuperscript{23}

Effects were estimated for the 15 studies grouped according to (i) three broad categories of ‘country-level income’, (ii) whether the intervention included antenatal contact as well as postnatal contact, and (iii) two categories of ‘intensity of intervention’ (more/fewer than five planned contacts between mother and supporter).

The findings indicated that:

(i) In low or middle-income countries, BPS interventions were associated with an increase in breastfeeding continuation, especially exclusive breastfeeding (where they have the potential to make a major contribution to improving key health outcomes), but showed less impact in high-income countries, and had no significant impact in the UK.

(ii) Postnatal-only BPS interventions were associated with improved breastfeeding durations, but interventions that combined antenatal and postnatal BPS contacts were not.

(iii) Low-intensity interventions (involving fewer than five planned BPS contacts) had no significant impact on breastfeeding duration.

In discussing the non-significant findings from meta-regression of BPS in the UK, Jolly et al hypothesised that the presence of routine postnatal care services to support breastfeeding the UK may make it difficult for ‘additional’ peer support interventions to demonstrate impact. Certainly the UK has a considerably more developed infrastructure to enable postnatal care than middle- and low-income countries included in the review. However, this conclusion does not sit comfortably with findings from UK-based studies indicating a lack of adequate postnatal support,\textsuperscript{28} nor with the finding that 80% of mothers who discontinue breastfeeding in the first six weeks after the birth stop before they planned to do.\textsuperscript{2}

Other factors may have contributed to negative findings from UK-based BPS studies. Jolly et al suggest that low intensity of BPS may have had an impact. They note that the UK studies tended to involve relatively few planned contacts between supporter and mother, and since ‘low intensity’ is also associated with non-significant outcomes, indicate that ‘some confounding of setting by intensity of support may exist.’\textsuperscript{27} Authors of the papers relating to all three studies included in the meta-regression analysis themselves discuss possible factors relating to intervention design or delivery that may have contributed to negative findings. These include low intervention intensity,\textsuperscript{33,36} availability of other support services,\textsuperscript{23,33} low take-up,\textsuperscript{34} lack of contact in hospital,\textsuperscript{34} a mismatch between the characteristics of supporter and mother,\textsuperscript{33} displacement whereby peer supporters freed up professionals’ time to care for mothers in the control arm,\textsuperscript{24,36} mothers in the control arm accessing peer support,\textsuperscript{33} and issues to do with health professionals’ commitment to breastfeeding and acceptance of peer supporters.\textsuperscript{34} Other issues relating to RCT study design are also discussed by Jolly et al.\textsuperscript{29} There is good reason to suggest that the ‘background noise’ of existing postnatal support may not provide a full explanation for failure of the three UK-based RCTs included in meta-regression to demonstrate impact.

Findings from an international Cochrane review of impact of ‘extra support’ (Renfrew et al, 2012)

A Cochrane systematic review, updated in 2012, looked at the impact of ‘extra support’ on breastfeeding duration and exclusivity compared to ‘usual maternity care’, including 52 RCTs and quasi-randomised controlled trials from both high- and low-income countries.\textsuperscript{39} The additional support (compared with usual care) was provided by professionals or lay supporters; the review used a wide definition of ‘support’ including staff training to improve supportive care as well as direct support to the mother from an additional person with a designated support role.

The authors concluded that:

- Support from lay supporters and professionals had a positive impact on breastfeeding outcomes.
- Support is likely to be more effective in areas with high initiation rates.
- Strategies that rely mainly on face-to-face support are more likely to succeed.
- Support that is offered reactively is unlikely to be effective.
- Women should be offered ongoing visits on a scheduled basis so they can predict the support that will be available.
- Support should be tailored to the needs of the population group.

The results of the Cochrane review are not analysed separately according to country setting. The 37 that were conducted in high-income countries, including seven studies conducted in the UK,\textsuperscript{23,34,39-42} three of which involved peer support.\textsuperscript{23,34,39} Two of these studies\textsuperscript{33,34} are included in the meta-regression review conducted by Jolly et al discussed above.\textsuperscript{29}

The third UK study was a cluster-randomised trial of a policy to provide breastfeeding groups in a relatively deprived area of Scotland intended to achieve ‘population coverage’ in intervention areas.\textsuperscript{29} While highly relevant to organisations who train created ‘peers’ (including breastfeeding counsellors) to run groups, this study does not describe a created peer support intervention, since the groups were run by health professionals. The ‘peer’ element in this study is the direct mother-to-mother interaction within the groups. This study is unusual in its clear specification of the mechanisms by which it is hypothesised that change may occur. It is argued that the mechanisms extend beyond influence at the individual level, identified in Dennis’s concept analysis of peer support,\textsuperscript{27} to include: increased inter-disciplinary working at local level; and sharing of experiences at group level; and inter-personal and inter-group mechanisms operating through social networks.

The study found that the intervention to provide breastfeeding groups did not improve breastfeeding rates at six-to-eight weeks, and in some areas rates actually declined.\textsuperscript{29} The authors suggested possible factors that may have contributed to negative findings, including insufficient women attending the groups in pregnancy and in the early weeks after the birth, and failure to attract groups of women beyond older, higher-income mothers, who are already more likely to breastfeed. A strength of the study is that the trial was embedded within a qualitative evaluation,\textsuperscript{44} informed by realist evaluation approaches,\textsuperscript{45} designed to understand how implementation context influences outcomes. The authors
identified a wide array of obstacles limiting opportunities for change. They concluded that ‘negative aspects of place included deprivation, unsuitable premises and geographical barriers to inter-professional communication; personnel resources including staff shortages, high workload and low morale; and organisational change’ predominated in areas where breastfeeding rates declined. In contrast, in areas where breastfeeding rates rose, ‘there was more evidence of leadership, focus on policy, multi-disciplinary working and reflective action cycles’.

Findings from a process evaluation of 26 UK peer support interventions (Dykes, 2005)

Twenty-six peer support projects funded for one year by the UK government in 1999 to promote breastfeeding in low-income communities were subject to process evaluation in order to identify aspects of the intervention or wider delivery context that tended to support successful delivery and factors that tended to lead to implementation failure. The evaluation identified a series of steps required for successful operationalisation of breastfeeding peer support schemes. The author concluded that when these steps are followed, peer support schemes have the potential to support breastfeeding women and to have an impact on initiation and continuation rates. The identified steps are summarised in Table 1.

Table 1: Nine steps required for successful operationalisation of peer support schemes developed from an evaluation of 26 projects (constructed from Dykes, 2005)

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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<tr>
<td>Cultural awareness</td>
<td>Develop an in-depth understanding of the local culture, e.g. via teams working and living in the target area and interviews and focus groups with community members.</td>
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<tr>
<td>Infrastructure building</td>
<td>Become aware of existing schemes and projects; facilitate interconnection and experience-sharing.</td>
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<tr>
<td>Comprehensive planning</td>
<td>Involve key representatives (health boards or trusts, local initiatives such as Sure Start/Flying Start, breastfeeding support organisations, infant feeding specialists, health visitors and midwives). Ensure funding and time for a co-ordination role.</td>
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<tr>
<td>Engaging peer supporters</td>
<td>Develop clear guidelines on engaging, training and supporting peer supporters. Ensure the times and format of the courses are flexible with adequate provision for accompanying children. Education should be delivered on a ‘rolling’ basis.</td>
</tr>
<tr>
<td>Peer-professional interface</td>
<td>Fully inform health professionals about the scheme so that women are appropriately referred. Address health professionals’ educational needs alongside developing peer support.</td>
</tr>
<tr>
<td>Marketing the programme</td>
<td>Ensure ongoing publicity to enable peer supporter recruitment and make women aware that support is available.</td>
</tr>
<tr>
<td>Supportive infrastructure</td>
<td>Ensure multiple access points for referral across the hospital-community interface (e.g. antenatal clinics, health centres, postnatal wards and drop-in centres). Ensure peer supporters have a designated place in which to work when in hospital. Include peer-led support groups and drop-in centres as these facilitate supportive relationships within and between groups. Ensure drop-in centres are in venues that are acceptable and accessible to the target group of women and run at least weekly. Link timing to other activities (e.g. baby clinic). Develop a workable telephone and home visiting system, ensure payment of expenses, support with childcare and ongoing support for peer supporters. Ensure a peer support administrator is available.</td>
</tr>
<tr>
<td>Comprehensive evaluation</td>
<td>Have a clear evaluation strategy from the outset, involving a continual cycle of evaluation and improvement.</td>
</tr>
<tr>
<td>Obtaining and maintaining funding</td>
<td>Identify key funders to enable existing projects to be sustained and expanded.</td>
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Findings from a metasynthesis of mothers’ perceptions of support (Schmied et al, 2011)

An international metasynthesis of mothers’ perceptions of support included findings from 31 primary research qualitative and survey studies identified through systematic review. Studies included those referring to help from ‘created’ peers (breastfeeding counsellors, breastfeeding peer supporters), as well as from paraprofessionals and professional health workers. The findings provide insight into the aspects of breastfeeding support that mothers associate with a positive experience of support. The findings indicated that support is experienced along a continuum from ‘authentic presence’ at one end (perceived as effective support) to ‘disconnected encounters’ at the other (which were perceived as ineffective). Support characterised by ‘authentic presence’ comprised ‘a trusting relationship or connectedness and rapport between the woman and her caregiver, supporter, or both’. Women’s experiences of ‘authentic presence’ included someone ‘being there for me’, taking an empathetic approach, taking time, providing affirmation, being responsive, ‘sharing the experience’, and ‘having a relationship’. In contrast a ‘disconnected encounter’ was characterised by ‘limited or no relationship and a lack of rapport’. Themes underpinning a disconnected encounter were ‘undermining and blaming’, ‘feeling pressured’, ‘communicating temporal pressure’, not giving time and ‘insensitive or invasive touch’. The authors further distinguish between different styles of support, with a ‘facilitative style’ (one that enables people to draw on a range of information and experience and learn for themselves) perceived as effective, and a ‘reductionist approach’ (‘oversimplifying’ and providing information and advice in
a ‘dogmatic or didactic style’ perceived as ineffective. Peer supporters were more likely than professionals to be described as ‘being there’ for mothers, sharing the experience, and having a relationship. The authors note that women talked less about feeling rushed when they received care from peer supporters or home-based postnatal care than when they talked about care from professionals in hospital. The authors found that peer supporters have the potential to act as role models particularly, for young mothers and for mothers from socially disadvantaged backgrounds; though they note that support which can offer time, continuity, and the encouragement of a ‘peer’ may be helpful for many women and not just those from demographic groups that are less likely to breastfeed. Overall, the authors suggest that taking a ‘person-centred’ approach to support means that it is likely to be experienced as positive. They argue that a model of support that emphasises continuity of caregiver is more likely to deliver authentic and facilitative support.

Discussion

Evidence for effectiveness: Currently there is no good RCT evidence to suggest that peer support interventions improve breastfeeding durations in the UK, though there is evidence to indicate that peer support can be effective in other settings. As Hoddinott et al have extensively discussed in their review of breastfeeding interventions in the UK the negative findings from the small number of UK based trials need considerable unpicking. Two of the three peer support interventions evaluated as part of meta-regression were low intensity and predominantly reactive. The authors of the three UK-based RCTs of breastfeeding peer support point to issues relating to intervention design, study design and wider context that may have limited the ability of RCTs to demonstrate effectiveness. Evidence from the prospective qualitative evaluation, informed by realist approaches to evaluation, which occurred alongside the cluster-RCT of a policy to introduce breastfeeding support groups, demonstrates that context factors have a powerful independent impact on breastfeeding outcomes and can represent barriers to programme implementation. A good understanding of likely interaction between the intervention and wider context, and ability to identify the aspects of context that aid successful implementation is likely to be critical.

It is clearly overly-simplistic to think of BPS as a single intervention which either works or does not work and which can be evaluated in isolation from delivery context. Given the considerable heterogeneity in models of peer support that exist across the UK and the small proportion of possible interventions that have been trialled, it is conceivable that the right intervention, with the right population, in the right context, employing the right mechanism, towards the right outcomes has not yet been evaluated. The conclusion that peer support is ‘unlikely to be effective’ in the UK seems premature. What we do seem to have is an absence of evidence for effectiveness. The challenge now for organisations commissioning and delivering peer support programmes is to use the existing evidence to design interventions that are most likely to be effective and acceptable (and that avoid pitfalls indicated by the evidence to date). This might best be achieved through a shift away from asking simply, ‘Does it work?’ and towards applying realist approaches to interpreting the evidence base and designing evaluations in order to ask ‘What works, for whom, in what circumstances, in what respects and how.’

‘Impact of peer support cannot be evaluated in isolation from delivery context.’

Design factors: This overview highlights the importance of integrating peer support interventions with NHS systems of midwifery care. Timing of support seems to be important; none of the UK studies discussed in this paper utilised BPS in the immediate postnatal period. Antenatal contact from a peer supporter does not emerge from this overview as being an important factor in enabling breastfeeding continuation; however, it may be worth exploring the ways in which antenatal contact contributes to the development of supportive relationships. It may be worth considering this issue of timing in the light of findings from longitudinal qualitative research suggesting that mothers require support at pivotal points along their feeding journey and that support should be responsive to mothers’ changing needs at different points along the journey. The finding from the Cochrane review that structured support is more effective needs to be considered in this context. The finding that face-to-face support is more likely to be effective than telephone contact has cost implications, and it might be helpful to explore further what it is about the face-to-face contact that improves outcomes and the best ways in which different methods of support can be combined. The finding that more proactive and intensive support is more effective may be disconcerting for organisations which train volunteers based on person-centred counselling approaches that emphasise ensuring clients do not have ‘help’ imposed upon them and can remain in control of the amount of assistance they receive, so that their sense of agency is protected. The challenge is for such organisations to find ways of delivering support that is simultaneously proactive and focused on the unique goals of individual mothers. It may be helpful to consider ‘proactiveness’ as occurring along a continuum, and to explore different ways of offering help that may be more or less acceptable to different target populations.

What mothers want: Evaluations of UK peer support interventions generally look at ‘effectiveness’ in relation to impact on breastfeeding initiation and continuation rates; while internationally, particularly in developing countries where access to clean water is an issue, the focus is often on exclusivity. In reality, organisations delivering infant feeding support to mothers also place value on the maternal experience of feeding a baby and seek to simultaneously improve support for breastfeeding while enabling mothers to make decisions that are right for themselves and their families. McInnes et al have suggested that there is a qualitative difference between ‘mother-centred’ and ‘breastfeeding-centred’ care. The evidence that mothers prefer an approach that focuses on their own needs and goals, and that enables a relationship to develop between mother and supporter through continuity of carer, should be considered alongside the finding from international evidence that proactive approaches are more effective in improving breastfeeding durations. Taken together the findings suggest that proactive care should be delivered in a way that promotes relationship building.

The NCT research overview series provides an evidence base to guide the practice of NCT and other transition-to-parenthood workers on topics of relevance during pregnancy, birth, parenthood and the care of babies and toddlers aged 0-2 years. Workers must decide how to apply the evidence in their practice but they can feel confident that the research overview provides an up-to-date, balanced and reliable summary and interpretation of the relevant research literature.
References


