How important is continuous support for women in labour? An overview of evidence

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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.

This overview of the evidence on continuous support during labour starts with a brief historical and cultural background and theoretical explanations of the importance of a supportive relationship with a caregiver. The recently revised Cochrane review of randomised controlled trials on continuous labour support is introduced, and the evidence from it is summarised.[1] Factors that influence the effectiveness of birth companionship are outlined. The second part of this article highlights findings from qualitative studies on what women feel about support during labour, focusing on young mothers, unsupported mothers, clinically and socially high-risk women, and women prisoners.

Table 1

2011 review outcome measures

Primary outcomes

Mother

1. Any analgesia/anaesthesia (pain medication)
2. Synthetic oxytocin during labour
3. Spontaneous vaginal birth
4. Postpartum depression (defined using a pre-specified cut-off score on a validated instrument)
5. Negative rating of/negative feelings about the birth experience

Baby

1. Admission to special care nursery
2. Breastfeeding at one-to-two months postpartum

Secondary outcomes

Labour events

1. Regional analgesia/anaesthesia
2. Labour length
3. Severe labour pain (postpartum report)

Birth

1. Caesarean birth
2. Instrumental vaginal birth
3. Perineal trauma (defined as episiotomy or laceration requiring suturing)

Newborn

1. Low five-minute Apgar score (as defined by trial authors)
2. Prolonged newborn hospital stay

Longer-term maternal outcomes

1. Difficulty mothering
2. Low self-esteem in the postpartum period

Background

Historically, mothers around the world could expect continuous support during labour and birth from other women in their communities, including emotional support, comforting touch such as massage, information about the birth process, advice on coping with pain, and advocacy.[1] There is widespread concern that the medicalisation and institutionalisation of birth in large hospitals has 'dehumanised' the care provided, leaving women who are fearful and in pain without comfort and reassurance,[2] leading to 'calls for a return to continuous, one-to-one support by women for women during labour'.[1] Care provided by a trained birth companion or 'doula' is a relatively new form of continuous labour support which revives the tradition of female companionship.[3]

Hodnett suggests that, at a theoretical level, two hypotheses have been developed about why continuous labour support may be beneficial.[1] First, Hofmeyr has argued that support can act as a buffer against the stresses of institutional obstetric care, including high intervention rates, lack of privacy, and lack of a trusting relationship with attendants, which can disempower mothers and adversely affect labour.[4] Second, Hodnett proposes that continuous support may primarily affect the physiology of normal birth as a trained companion is likely to encourage a woman to stay mobile, adopt different positions and use gravity to ease the pain and assist the baby in descending,[5] and reassurance can reduce the stress hormone epinephrine, which is associated with adverse labour effects.[1]

The Cochrane review

In 2011, an update of the Cochrane review of continuous support for women during childbirth 'now includes 21 trials (n = 15,061) from 15 countries, which met the quality standards set by Cochrane, an increase from 16 trials (n = 13,391) from 11 countries in 2009, when the review was last updated. For the first time, the 2011 review includes trials of support by 'companions of the woman's own choosing, i.e. husband/partner, relative, or friend from her existing social network.' This means that the review examines three different groups of continuous labour supporters:

- Hospital staff members
- Supporters who are not hospital employees or part of the woman's social

network (such as doulas)
- Supporters chosen by the woman from her social network

The outcome measures included in the review have been changed somewhat; there are now seven primary and ten secondary outcomes (see Table 1), instead of 29 outcomes.

Key findings

There were no risks of continuous, one-to-one support reported. Overall, the outcomes were:

- More likely to have a spontaneous vaginal birth (18 trials, n = 14,005, RR 1.08, 95% CI 1.04 to 1.12)
- Less likely to have any intrapartum analgesia or anaesthesia (13 trials, n = 12,169, RR 0.90, 95% CI 0.84 to 0.97), including regional analgesia/anaesthesia (nine trials, n = 11,444, RR 0.93, 95% CI 0.88 to 0.99)
- Less likely to report negative feelings about their childbirth experience (11 trials, n = 11,133, RR 0.69, 95% CI 0.59 to 0.79)
- More likely to have shorter labours (11 trials, n = 5269; mean difference -0.58 hours, 95% CI -0.86 to -0.30)
- Less likely to have an instrumental vaginal birth (18 trials, n = 14,004; RR 0.90, 95% CI 0.84 to 0.96)
- Less likely to have a caesarean birth (21 trials, n = 15,061; RR 0.79, 95% CI 0.67 to 0.92)
- Less likely to have a baby with a low 5-minute Apgar score (12 trials, n = 12,401; RR 0.70, 95% CI 0.50 to 0.96)

And there was no impact of continuous support found for:

- Use of synthetic oxytocin during labour (14 trials, n = 12,506; RR 0.97, 95% CI 0.90 to 1.04)
- Admission to the special care nursery (seven trials, n = 8897; RR 0.97, 95% CI 0.76 to 1.25)
- Breastfeeding at one-to-two months postpartum (three trials, n = 5363, RR 1.01, 95% CI 0.94 to 1.09)
- Postpartum depression (one trial, n = 5567; RR = 0.86, 95% CI 0.73 to 1.02)
- The likelihood of serious perineal trauma (four trials, n = 8120; RR 0.97, 95% CI 0.92 to 1.01)
- Severe labour pain (four trials, n = 2456; RR 1.00, 95% CI 0.83 to 1.12)
- Difficulty mothering (four trials, n = 6308, RR 0.60, 95% CI 0.35 to 1.02)
- Low post-partum self-esteem (one trial, n = 652; RR 1.00, 95% CI 0.77 to 1.30)
- Prolonged post-partum neonatal hospital stay (three trials, n = 1098, RR 0.83, 95% CI 0.42 to 1.65)

Factors that influence the effects of continuous labour support

The authors carried out five subgroup analyses, to determine whether some kinds of continuous support had more of an impact than others, and whether the impact of continuous support varied according to external environmental factors. The subgroup analyses were:

1. Women were 'permitted' to be accompanied by a companion of their choice during labour (ten trials) vs. not permitted (11 trials)
2. Epidural analgesia was available (14 trials) vs. not available (six trials)
3. Electronic fetal heart rate monitoring (EFM) was routine (nine trials) vs. EFM not routine (seven trials)
4. Supporters were hospital employees (nine trials) vs. supporters were not employees and were not members of the woman's social network (seven trials) vs. supporters were lay people chosen by the women (five trials)
5. Continuous labour support began prior to or during early labour (four trials) vs. continuous support began in active labour (authors unable to determine).

There were clear results for the first four subgroup analyses but insufficient evidence to provide results for subgroup analysis of the timing of continuous support.

No support person allowed

When hospital policy dictates that women are not allowed to bring a support person of their choosing, the provision of one-to-one labour support seems to act as a buffer against harsh institutional policies and environments by reducing the fear and anxiety of labouring alone. The authors found that, 'The effects of continuous support on use of any intrapartum analgesia/anaesthesia' and 'reducing caesarean birth appeared to be stronger in settings where companions were not permitted.'

Epidural analgesia

It seems that when epidural analgesia is not available, one-to-one labour support is more effective, although the review 'cannot answer questions about the mechanisms' of this reduction' and notes that it may be direct or indirect, a part of a 'cascade of interventions.'

Electronic fetal monitoring (EFM)

'Labour support in settings without routine EFM was associated with greater likelihood of spontaneous vaginal birth and lower likelihood of a caesarean birth.' The authors thus raise questions about just how much one-to-one support can act as (an effective) 'buffer against adverse aspects of routine medical interventions.'[1]

Providers of one-to-one care

A range of outcomes appeared to be stronger when the provider was neither a hospital employee nor part of the woman's social network, including: increased likelihood of spontaneous vaginal birth, reduced use of synthetic oxytocin and caesarean birth. Hodnett et al. suggest reasons why these differences may occur. Hospital employees have additional responsibilities that compete with providing physical and emotional support to the woman in their care, and a sense of divided loyalties between the woman and institutional policies and routines. Family members 'usually have little experience in providing labour support and are themselves in need of support when with a loved one during labour and birth', so while a companion from the woman's own social network may be a reassuring and valued presence, it may not be sufficient to provide optimal support. A trained companion or doula can support both the woman and her partner. Hodnett has found that 'women received more support from their partners when a doula was present to guide them, and the partners themselves reported more support'.[6]

Qualitative Studies

Qualitative studies give deeper insight into what one-to-one labour supporters do during pregnancy, labour and birth, the relationship developed between supporter and mother, and how mothers felt that they benefited from continuous support. Importantly, qualitative studies have explored how continuous support affects particular groups of women, including more vulnerable or disadvantaged women; Pascali-Bonaro and Kroeger hypothesise that the more vulnerable the woman, the more benefit she can obtain from continuous one-to-one labour support. [7]

Women without support

In some countries women are not allowed to bring anyone with them into the hospital during labour and birth, and in the UK there are women who are unsupported. In cases where a woman is alone during labour, continuous support becomes especially

important. In-depth interviews with women in Mexico who were alone in the hospital reveal that when given one-to-one doula support, women felt better able to voice their concerns, ask for and receive more information, cope with the experience, and felt more in control.[8]

Women without a partner especially benefit from doula support.[9,3,7,10] A study of single mothers in Sweden – where, as in the UK, midwives work in shifts so mothers typically do not know the midwife before labour and continuous support is rare – found that doulas gave women a sense of companionship and security, reducing anxiety. One said: 'I didn't have to feel lonely...and I think that this made me calm. I didn't have to worry.'[10] Some women brought family members or friends, but the doulas were seen to fill a gap in the professional support as well as adding a 'human dimension'.[10]

Adolescent Mothers

Pregnant adolescents often face 'overwhelming medical and psychosocial challenges'.[11] Adolescents are typically less prepared for labour and need more support coping with pain than pregnant adults.[12] A US study of socially and economically disadvantaged teenage mothers, paired with doulas of the same ethnic background, found that they benefited from one-to-one support during pregnancy and labour in unique ways. For these mothers, who often reported inadequate support from family, friends, and the baby's father, doulas 'served as positive role models', 'encouraged and modelled self-care', and utilised 'relationship-based caring.'[11]

Women Prisoners

Women prisoners are an especially vulnerable group and therefore might have the most to gain from caring one-to-one labour support. Birth is highly stressful, and women prisoners usually do not have their partner with them and are not permitted to leave the labour room or have visitors; many know that their baby will likely be taken away soon after birth.[13,14] Pregnant prisoners are also likely to be economically disadvantaged, have a history of childhood trauma, poor physical and mental health including addiction problems, and inadequate prior health care'.[13] Doula support can help women prisoners feel valued and safe, despite their especially difficult birth and life circumstances. One woman prisoner who felt uncomfortable being watched by a male guard said, 'It helped me have a positive experience even though I was in custody. There was a guard standing at the door, [the doula] let me forget he was there.'[13]

Discussion and summary

The summary of implications for practice provided by Hodnett et al. is very clear and explicit, so is reproduced here in full: 'Hospitals should permit and encourage women to have a companion of their choice during labour and birth, and hospitals should implement programs to offer continuous support during labour. Policy makers and hospital administrators in high-income countries who wish to effect clinically important reductions in inappropriately high caesarean rates should be cautioned that continuous support by nurses or midwives may not achieve this goal, in the absence of other changes to policies and routines. In many settings, the labour ward functions according to a risk-oriented, technology-dominated approach to care. Institutional staff are unlikely to be able to offer labouring women benefits comparable to non-staff members, in the absence of fundamental changes in the organization and delivery of maternity care. Changes to the content of health professionals' education and to the core identity of professionals may also be important. Policy makers and administrators must look at system reform and rigorous attention to evidence-based use of interventions that were originally developed to diagnose or treat problems and are now used routinely during normal labours. Given the clear benefits and absence of adverse effects of continuous labour support, policy makers should consider including it as a covered service for all women.'[1]

Reinforcing these points, NICE guidance states, 'Continuous support during labour should be the norm, rather than the exception', and 'A woman in established labour should not be left on her own except for short periods or at the woman's request.'[15]

It is important to note limitations of the existing research. Hodnett et al. emphasise that conclusions from the subgroup analyses should be 'viewed with caution', as only a small number of trials provided enough information to be included.[1] Also more trials must be conducted on the medium-term effects of continuous support, i.e. on the postpartum period. Only three trials measured breastfeeding (one-to-two months postpartum) and only one contributed data on postpartum depression. Additional research is needed to determine how soon continuous support should begin (early vs. active labour) and if it is important for a woman and a doula to establish a relationship prior to labour. Further qualitative research is needed to determine how vulnerable women can best be supported by one-to-one care.

Conclusion

In the UK, most women receive labour support from a midwife and a partner or family member. This routine support, however, may not be adequate. Continuous one-to-one support by a trained labour companion or doula should be offered to minimise adverse institutional effects and increase positive labour outcomes for women and babies.

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