Continuous labor support from labor attendant for primiparous women: a meta-analysis
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Authors' objectives
To examine the effectiveness of continuous labour support by labour attendants on obstetric outcomes among primiparous women.

Searching
MEDLINE was searched from 1965 to May 1995 for English language publications, using the keywords 'labour support', 'doula' and 'monitrice'. Additional studies were identified from crosschecking of references in the retrieved studies.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials were included.

Specific interventions included in the review
Continuous labour support was categorised into two groups: the doulas who provide emotional support only, and the monitrices who provide basic medical care as well as emotional support. The review was limited to the emotional support provided in labour.

Participants included in the review
Young (average age 20 years), inner city, low-income, primiparous women without antenatal complications, who gave birth in a busy labour and delivery unit in hospitals that did not allow any companions with the parturient.

Outcomes assessed in the review
Duration of labour, oxytocin use and mode of delivery were assessed.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

Assessment of study quality
The authors do not report the criteria used to assess validity, or how the validity assessment was performed.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

Methods of synthesis
How were the studies combined?
The studies were combined through the calculation of weighted mean differences and through relative risks (RRs) with weightings. No details are provided of the weighting structures.

How were differences between studies investigated?
The authors do not state how differences between the studies were investigated.
Results of the review

Four studies (1,349 patients) were included.

On average, women in the support group spent 2.8 hours (95% confidence interval, CI: 2.2, 3.4, P<0.01) less than the control group in labour, using oxytocin less than half as frequently (RR 0.44, 95% CI: 0.3, 0.6). Women with the support of a doula were twice as likely to have a spontaneous vaginal delivery (RR 2.01, 95% CI: 1.5, 2.7, P<0.01), and less likely to have forceps used (RR 0.46, 95% CI: 0.3, 0.7, P<0.01) or a Caesarean delivery (RR 0.54, 95% CI: 0.4, 0.7, P<0.01) than the control group. As a consequence, the studies noted improvements in maternal and neonatal postpartum course among the support group compared to the control, as assessed through physical and emotional characteristics. The support groups were seen to have lower incidences of maternal fever, neonatal stay more than 48 hours and neonatal sepsis evaluation, as well as fewer neonates transferred to intensive care, less anxiety and pain from labour and delivery, and higher levels of bonding with the baby after the delivery.

Authors' conclusions

Continuous labour support by labour attendants for young, low-income, primiparous women ameliorates the effect of dysfunctional uterine activity. In these women, not only was labour shorter but oxytocin use, analgesic needs and Caesarean delivery rates were significantly reduced. Supported mothers felt less fatigued during and after labour, and delivery and more satisfied. In the postpartum period, mothers who had labour support showed increased mother-infant bonding and breast-feeding.

CRD commentary

The review provides an adequate discussion of the objective of the review, the interventions, participants and outcomes included, and search strategy for identifying the primary studies. Unfortunately, the review does not discuss the criteria for assessing the validity of the primary studies, the procedure used by the authors for assessing the relevance and validity of the primary studies, or the methods employed in extracting the data from the studies. The methods for combining the results of the studies are mentioned, but limited information on the weightings used for the pooled RRs is provided. Differences between the included studies, such as training and experience of the labour attendants, obstetric practice, inclusion criteria for cervical dilation at admission, blinding of trials and sample size, are discussed but no investigation of their effects is reported. Such factors may affect the comparability of the studies, thus weakening the strength of the evidence presented by the authors. Whilst the authors conclude that the review has great implication for obstetric practice with enormous potential savings in government expenditure, no cost-benefit analysis is presented.

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