Published in final edited form as:

Eur J Integr Med. 2016 February 1; 8(1): 19–20. doi:10.1016/j.eujim.2015.12.013.

A summary of a Cochrane review: Midwife-led care for childbearing women

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1. Introduction

Review authors in the Cochrane Collaboration conducted a review of the effects of midwife-led continuity models versus other models of care for childbearing women. After searching for all relevant studies, they found 15 studies in which midwives planned, organised and delivered care to women during pregnancy and shortly after giving birth. These studies compared the midwife-led care to care led by or shared with other health care providers. This summary presents the findings of these studies.

1.1 Midwife-led care and other models of care

In many countries, women have a choice about who they see for care during their pregnancy and after the birth of their child. One option, common in the past, is for women to see their family doctor who leads their care throughout pregnancy and afterwards. A second option, more common in North America, is for women to see an obstetrician. In contrast to these two options, which rely upon the family doctor or obstetrician to lead care, some women may have the option to have a midwife to plan, organise and lead their care. Midwives are trained in universities and through other training programmes, and will often provide care when the pregnancy and birth are normal and without complications. Another model of care involving midwives is the shared model in which responsibility for organising care is shared by midwives, family doctors and obstetricians depending on the stage of pregnancy.

Midwife-led care is typically based on a few key principles. Care is usually provided by the same one or two midwives from the beginning of the pregnancy to shortly after birth, ensuring continuity of care. Care focuses on birth as a natural event and the goal is usually to limit the number of procedures, such as the use of forceps, epidurals and caesarean sections (C-section). In addition, midwife-led care focuses on giving women information so that they can make their own choices about their care.

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2. What does the research say about midwife led care?

Fifteen studies with over 17 000 women compared midwife-led care to other models of care. The studies were carried out in Australia, Canada, Ireland, or the United Kingdom. In these studies, many women with midwife-led care still had appointments with their family doctor or obstetrician, and care was provided at the hospital, in the community or at home.

The evidence that we have about most of the effects of midwife-led care is high quality evidence, meaning that we are certain about the observed effects. Although in nearly all studies, women knew which care they received, it was felt that the women would likely not be able to change the events of their pregnancy to show better results for midwife-led care or another model of care. Some of the studies included a mix of women who were at low risk and high risk of complications. These studies found similar effects of midwife-led care as described below, however it is not yet clear how the evidence applies to women at high risk.

In summary, when pregnant women have midwife-led care, slightly fewer women will need pain relief during delivery, such as with epidurals or spinal blocks. Slightly fewer women will have a preterm delivery, but labour may be slightly longer (by 30 minutes). Whether women opt for midwife-led care or another model of care, there is little to no difference in the chance of having a C-section or needing a procedure (such as forceps or a vacuum). There is also little or no difference in the risk of death of the baby or fetus. Studies did find that the mother's satisfaction of care is probably higher with midwife-led care. See Table 1 for more details of the above.

3. Where does this information come from?

This summary is based on a Cochrane systematic review: Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. Cochrane Database of Systematic Reviews 2015, Issue 9. Art. No.: CD004667. DOI: 10.1002/14651858.CD004667.pub4.

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Acknowledgments

This article was prepared on behalf of the Cochrane Complementary Medicine Field with funding from the US National Center for Complementary and Alternative Medicine (NCCAM) of the US National Institutes of Health (grant number R24 AT001293). This summary of findings column series in the European Journal of Integrative Medicine is coordinated and edited by Lisa Susan Wieland, the Coordinator of the Cochrane Complementary Medicine Field.

Table 1

Summary of the Findings

What was measured	With other models of care	With midwife led care ^a	Quality of the evidence ^b	What happens with midwife led care
Women who have a C-section (14 studies, 17674 women)	15 out of 100	1 less woman will have a C-section (from 2 to 0 fewer)	⊕⊕⊕⊕ high	Little to no difference in the number of women who will have a C-section
Pain relief (epidural/spinal) (14 studies, 17674 women)	30 out of 100	4 fewer women will need pain relief (from 7 to 2 fewer)	⊕⊕⊕⊕ high	Slightly fewer women will need pain relief
Birth with procedures such as forceps or vacuum (13 studies, 17501 women)	14 out of 100	1 less woman will have a procedure (from 2 to 0 fewer)	⊕⊕⊕⊕ high	Little to no difference in the number of women who will have a procedure (such as forceps or vacuum)
Length of labour (3 studies, 3328 women)	4 to 8 hours	30 minutes longer (from 15 to 45 minutes longer)	⊕⊕⊕⊕ high	Labour is slightly longer
Preterm birth <37 weeks (8 studies, 13238 women)	6 out of 100	2 fewer women will have a preterm baby (from 2 to 1 fewer)	⊕⊕⊕⊕ high	Slightly fewer women will have a preterm birth
Death of the baby (fetus or neonate) (13 studies, 17561 women)	2 out of 100	0 fewer deaths (from 1 to 0 fewer)	⊕⊕⊕⊕ high	Little to no difference in deaths of the baby
Satisfaction with care (10 studies, 11802 women)	The majority of studies found higher satisfaction with midwife led care		⊕⊕⊕⊖ moderate	Probably higher satisfaction

^aThe numbers in the brackets show the range in which the actual effect could be using a 95% confidence interval.

^bDetails about the quality of the evidence: Most evidence was high quality. For satisfaction of care, the data could not be analysed to determine a precise level of satisfaction and satisfaction could have been higher but was measured with scales that were not valid.