Evidence Assessment: Summary of a Systematic Review

Who is this summary for?

For Doctors and Health Personnel, Administrators and Managers of health facilities, Community Health Workers and the partners involved in mother and child health.

Midwife-led continuity models versus other models of care for childbearing women

Key findings

- Women who received midwife-led continuity of care were less likely to have an epidural.
- Women's chances of a spontaneous vaginal birth were also increased and there was no difference in the number of caesarean births.
- Women were less likely to experience preterm birth, and they were also at a lower risk of losing their babies

Background

Midwife-led continuity models provide care from the same midwife or team of midwives during the pregnancy, birth and the early parenting period, and many women value this. These midwives also involve other care-providers if they are needed. Obstetrician-led or family doctor-led models are not usually able to provide the same midwife/wives throughout.

Questions

What are the effects of midwife-led continuity models of care with other models of care for childbearing women and their infants?

Midwife-led continuity models versus other models of care for childbearing women in Cameroon: [TALK ABOUT THE RELEVANT OUTCOMES: CESAREAN SECTION RATE, NEONATAL MORTALITY AND PRETERM BIRTHS]According to the demographic and health survey the 2011, maternal mortality has doubled in Cameroon between 2002 and 2011 from 430 to 782 deaths per 100,000 live births. The Ministry of Public Health opened midwifery training schools in 2011. Women who receive midwife-led models of care may be more satisfied with the care received than those who receive other models of care. Midwife-led continuity models may help improve materno-fetal outcomes..

Table 1: Summary of the systematic review		
	What the review authors searched for	**What the review authors found**
Studies	Randomized trials, cluster randomisation trials and quasi-randomised trials	Forty-five randomized trials met the inclusion criteria
Participants	Pregnant women	Pregnant women
Interventions	Models of care were classified as midwife-led continuity of care, and other or shared care on the basis of the lead professional in the antepartum and intrapartum periods. In midwife-led continuity models of care, the midwife is the woman's lead professional, but one or more consultations with medical staff are often part of routine practice. Other models of care include: a) where the physician/ obstetrician is the lead professional, and midwives and/or nurses provide intrapartum care and in-hospital postpartum care under medical supervision; b) shared care, where the lead professional changes depending on whether the woman is pregnant, in labour or has given birth, and on whether the care is given in the hospital, birth centre (free standing or integrated) or in community setting(s); and c) where the majority of care is provided by physicians or obstetricians.	The Zelen method was used in three trials. Four studies offered a caseload model of care and 10 studies provided a team model of care. The composition and modus operandi of the teams varied among trials. Levels of continuity (measured by the percentage of women who were attended during birth by a known carer varied between 63% to 98% for midwife-led continuity models of care to 0.3% to 21% in other models of care). Eight studies compared a midwife-led continuity model of care with a shared model of care. three studies compared a midwife-led continuity model of care with medical-led models of care. Participating women received ante-, intra- and postpartum care in 13 studies. Some midwife-led continuity models included routine visits to the obstetrician or family physicians (GPs), or both. The frequency of such visits varied. Such visits were dependent on women's risk status during pregnancy ; routine for all women (one to three visits)
Controls	All other models of care for childbearing women and their infants	All other models of care for childbearing women and their infants
Outcomes	**Primary outcomes** • Birth and immediate postpartum • Neonatal **Secondary outcomes** • Antenatal hospitalisation • Antepartum haemorrhage • Induction of labour • Amniotomy • Augmentation/artificial oxytocin during labour • No intrapartum analgesia/anaesthesia • Opiate analgesia • Attendance at birth by known midwife • Episiotomy • Perineal laceration requiring suturing • Mean labour length (hours) • Postpartum haemorrhage • Breastfeeding initiation • Duration of postnatal hospital stay (days) • Low birthweight (less than 2500 g)	• Maternal satisfaction • Birth and immediate postpartum • Neonatal • Antenatal hospitalisation • Antepartum haemorrhage • Duration of postnatal hospital stay (days)
Date of the most recent search: 25 January 2016.		
Limitations: This is a high quality systematic review**, AMSTAR =11/11**		
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Table 2: Summary of findings

Midwife- led compared with other models of care for childbearing women and their infants for childbearing women			
Patient or population: Pregnant women **Settings:** Australia, Canada, Ireland, UK **Intervention:** Midwife-led models of care **Comparison:** All other models of care for child bearing women and their infants			
Outcomes	**Relative effect (95% CI)**	**No of Participants (studies)**	**Quality of the evidence (GRADE)**
Preterm birth (less than 37 weeks)	0.76 [0.64-0.91]	13238 (8)	High
All fetal loss before and after 24 weeks plus neonat al death	0.84 [0.71-0.99]	17561 (13)	High
Spontaneous vaginal birth (as defined by trial authors)	1.05 [1.03-1.07]	16687 (12)	High
Caesarean birth	0.92 [0.84-1.00]	17674 (2)	High
Instrumental vaginal birth (forceps/vacuum)	0.90 [0.83-0.97]	17501 (13)	High
Intact perineum	1.04 [0.95-1.13]	13186 (10)	High
Regional analgesia (epidural/spinal)	0.85 [0.78-0.92]	17674 (14)	High

Applicability

The trials were conducted in Australia (5), Ireland (4), UK (2), Canada (2) New Zeland (2). These interventions require human resource and organisational changes but may be applied in other low resources settings such as Cameroon, with some effort.

Conclusions

There is high quality of evidence on the effects of midwife-led continuity models of care compared to other models of care for childbearing women and their infants. Most women should be offered 'midwife-led continuity of care'. It provides benefits for women and babies and no adverse effects were identified.

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