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# Which concepts of care for childbearing women help to promote normality in birth? Aspects of the German multicenter study midwife-led care

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## Topic area

In Germany, the majority of women (98%) give birth in a hospital [2]. The birth process is strongly medically controlled. Only 6.7% of all hospital births of low-risk women occur without any medical interventions [12]. The cesarean section rate is up to 31.6% (2008).
Results of international studies show that intervention rates in midwife-led units are lower than in obstetrician-managed units with a positive neonatal and maternal outcome [1, 5, 6, 8, 16]. Furthermore international findings demonstrate the importance of factors like continuity, control and choice for women giving birth and the influence on a positive birth experience. The concept of midwife-led care includes strategies to enhance factors supporting woman- and family-centred care [7, 9, 17].
The first midwife-led unit in Germany opened in June 2003. Up to now seven units exist throughout the country.

## Midwife-led care

- Intrapartum care is provided autonomously by midwives
- Antenatal care by midwives in collaboration with obstetricians
- Postpartum care by midwives in the hospital (in teamwork with nurses and obstetricians) and independently at home (up to eight weeks after birth)
- **Target group:** healthy pregnant women
- **Philosophy:** pregnancy, birth and postnatal period are physiological and normal processes
- **Aims:** safety of mother and baby as well as promotion of a positive birth experience
- Interdisciplinary developed eligibility requirements
- Both concepts of care are performed in the same labour ward
- Midwives of the team work in both care concepts
- In case of complications or pathology immediate consultation of an obstetrician is available

## Multicenter Study

- **Design**
  Prospective controlled clinical trial
- **Sample**
  Pregnant women meeting the criteria for inclusion and agreeing to take part in the study choose either the midwife-led care or the standard obstetrician-managed care.
- **Start and end date of study**
  February 2007 until January 2010
- **Ethical issues**
  The study strictly adhered to “Good Clinical Practice”. Ethics approval was obtained from the ethics commissions of the responsible medical associations. All participants gave their written informed consent.
- **Instruments**
  $t_1$ Documentation during birth (completed by midwives) [n=1.025]
  $t_2$ Posted questionnaire eight weeks after birth (participants) [Response rate 95.4%]
  $t_3$ Posted questionnaire six months after birth (participants) [Response rate 93.2%]
  Participants receive ten euros after completing both questionnaires.
- **Analysis**
  Intention-to-Treat (ITT)

## Theoretical perspective

**Salmon’s Item List (SIL-GER 12)** [10, 11, 13]

- Short German language version
- Multidimensional approach in the assessment of the birth experience
- Four subjective dimensions (fulfilment, emotional adaptation, negative emotional experience, physical discomfort)
- 12 Items are rated on a numerical scale from 1 to 7 (e.g. ‘disappointed - not disappointed’, ‘happy - not happy’, ‘exhausted - not exhausted’)
- Use of sum-score (high scores mean ‘good birth experience and evaluation’), which has good internal consistency (C’ alpha 0.87)
- Varying correlation patterns between several obstetric parameters and the four dimensions are possible
- Both positive and negative feelings are emotional sub-dimensions that contribute to the construct of overall satisfaction with the birth experience
- Good content and construct validity
- Used in the questionnaire at $t_1$ and $t_2$

**Basel-Berne Childbirth Inventory (BBCI)** [14, 15]

- Multidimensional instrument to assess the perception of intrapartum relationships and birth experience
- 42 items are ranked on a numerical scale from 1 to 5
- Includes eight dimensions (perceived partner support, relationship with midwife and with caregivers’ team, feelings of comfort and control, contact with infant in utero, coping resources, traumatic experience)
- Internal consistency (C’ alpha 0.60 - 0.85)
- Full version of the BBCI is used in the questionnaire at $t_1$ and a short version (seven items) at $t_2$

**Self-designed scales and questions**

- Five statements concerning ‘choice’ are rated on a 4-point scale from (1) ‘applicable’, (2) ‘rather applicable’, (3) ‘rather not applicable’ to (4) ‘not applicable’ (e.g. information, informed choice, participation in decision making)
- Six questions regarding ‘continuity of care’ by team of midwives (e.g. known midwife, change of shift) are asked

## Underpinning theories/philosophies

- **Choice** means providing good and adequate information and involving women in decisions concerning their care. This can help women to perceive control [9].
- **Control** appears to be the key component of overall satisfaction with the birth experience. It influences women’s senses of satisfaction, fulfilment and emotional wellbeing [3]. It has a objective and subjective component.
- **Continuity** is discussed in different ways. So far the concept of continuity of care has been inadequately defined. There is no evidence that women who were cared for in labour by a known midwife were more satisfied. Consistent care from caregivers that women trust seems to be more important [4]. Continuous support not only reduces dissatisfaction with care during childbirth, but also reduces the use of analgesia and enhances the likelihood of spontaneous births [5].

## Discussion

For the first time in Germany this study explores important factors influencing the birth experience and promoting normal birth in two different models of care.
Assessing the childbirth experience is extremely difficult. The use of a single overall measure is oftentimes meaningless because of the complex nature of birth. It is easier to disclose dissatisfaction with care when using specific rather than global questions. The use of an instrument providing different dimensions of care seems very beneficial.

## Conclusion

Up to now (April 2009) the sample size amounts to 1.025 participants and the response rate of both questionnaires is high. The response rate shows a great interest of the women in participating and telling about their experiences and views on the care they received during childbirth.

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