

Women's views on intrapartum care in Germany

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1 Abstract

The cooperative project *Women and family orientated health care concepts: health promotion in the birth process* evaluates scientifically midwife-led units from several perspectives. The cooperation exists between the University of Applied Sciences Osnabrück, the University of Osnabrück and the University of Bremen. In June 2003 the first midwife-led unit opened at the Klinikum Bremerhaven in Northern Germany. This intervention study compares midwife-led care with obstetrician-managed care for healthy women ("low-risk"). The purpose of the study is to explore whether there are differences in women's attitudes towards care received in the different models of care.

2 Introduction

- In Germany, the majority of women (98%) give birth in a hospital [2]. The birth process is strongly medically controlled. Less than 10% of all hospital births of low-risk women occur without any medical interventions [8].
- 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, 3, 5, 7, 9].
- 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 [6, 10].
- The concept of midwife-led care includes strategies to enhance factors supporting woman and family centred care (s. Fig. 1).
- In Bremerhaven both concepts of care are provided in the same labour ward. Midwives of the team work in both care concepts.

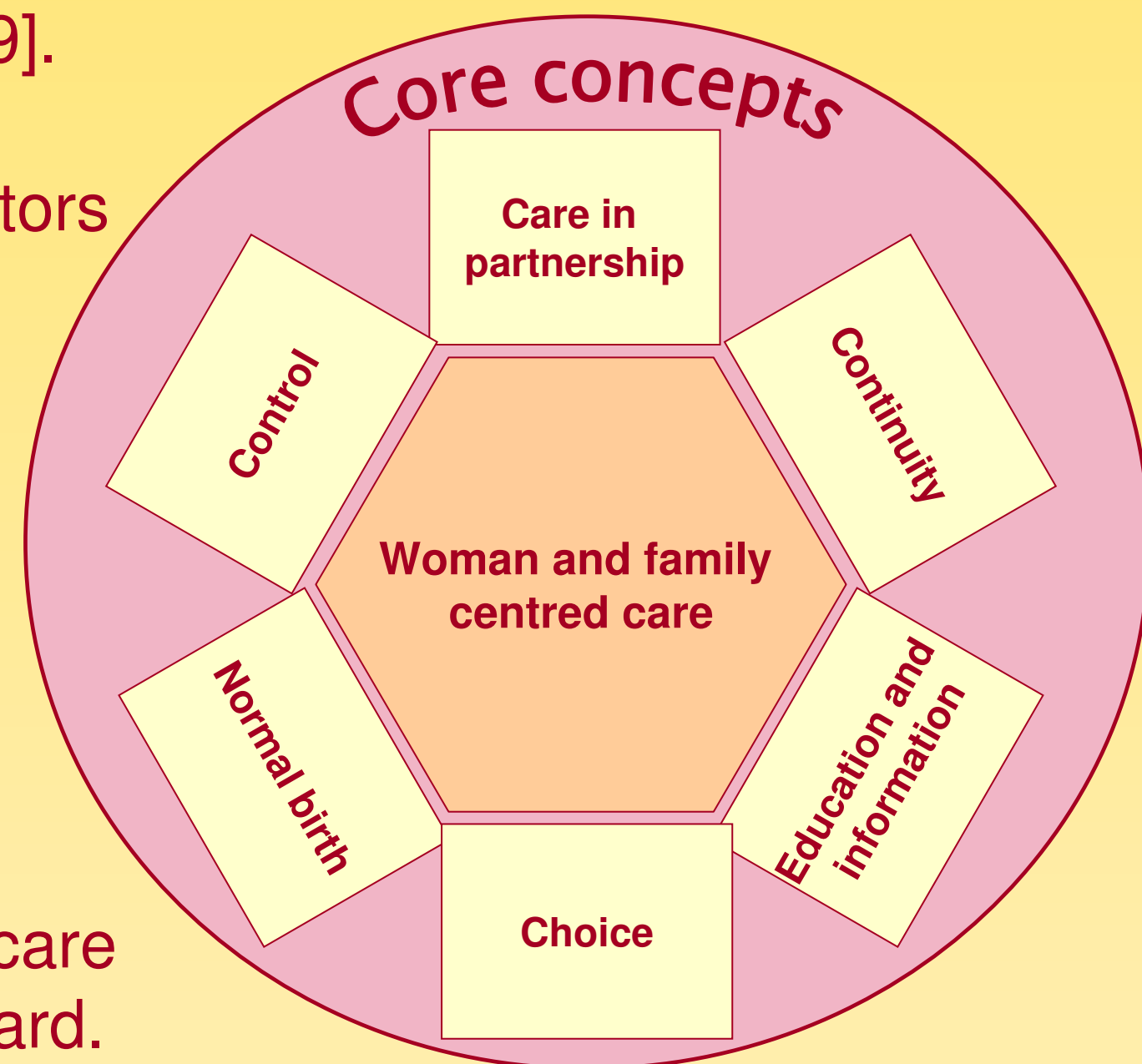


Fig. 1: Core concepts of midwife-led care
Source: Bauer, Krahl, Strack 2008

3 Objectives

- Women's views on the care they experienced during labour and birth relating to**
 - Choice and decision-making respectively informed consent
 - Control and self-determination
 - Continuity of care
 - Birth experience
- Further primary endpoints**
 - Maternal and neonatal outcome, medical intervention rates, midwifery procedures, breast feeding rates, physical symptoms and psychological well-being after birth

4 Methods

- Prospective controlled clinical trial**
- Ethical issues**
 - Ethics approval was obtained from the ethics commission of the medical association Bremen and the ethics commission of the University of Osnabrück.
 - All participants gave their written informed consent.
- Start and end date of study**
 - February 2004 until January 2007
- Sample**
 - Healthy women [n = 238] according to eligibility requirements
 - 92 women in the intervention group and 146 in the control group
 - No significant differences between groups, except for age of the mother (birth year mother). Women in the midwife-led unit are on average two years older. [p = 0.004, Wilcoxon test]
- Instruments**
 - T₁ Documentation during birth (completed by midwives) [n=238]
 - T₂ Posted questionnaire eight to twelve weeks after birth (participants) (Response rate: 83.2% = 198 questionnaires)
 - Self-report questionnaire using standardised instruments as well as self-designed scales and questions, additionally free-text field
- Data analysis**
 - Statistical package SPSS®
 - Analysis: intention-to-treat (ITT), partially per-protocol (PP)
 - Level of significance $\alpha = 5\%$
 - Odds ratios were adjusted for 'parity', 'birth year of mother' and 'duration of midwife-led unit'.

Statistician: Dr. Hermann Pohlabein, Bremen Institute for Prevention Research and Social Medicine (BIPS)

Literature
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5a Results - Choice

- The question „How often were you involved in decisions concerning you and your care in labour and birth?“ was asked.
- Analysis ITT:** 93.8% of the women in the intervention group (n = 76) answered ‚always‘ or ‚very often‘ or ‚often‘. 84.2% participants in the control group (n = 96) felt they were involved in decisions. [OR 2.97; 95%-CI 1.02-8.66 p = 0.0461]
- Women who intended to give birth in the midwife-led unit felt significantly more involved in decisions.

5b Results – Control

- Control was measured with the short version of the Labour Agency Scale (LAS) [4]. The LAS contains ten items - six positive and four negative statements. Women rated the items on a 7-point scale. The scores range between 10 and 70 points. A high score implicates a high level of perceived control. The LAS was translated into German and retranslated.
- Analysis ITT (Tab. 1):** The scores of the intervention group (n = 76) ranged between 31 and 70 and in the control group (n = 107) between 25 and 70. The median in the intervention group was 60.0, in the control group 58.0. [p-value 2-sided = 0.1512, covariance analysis] There is no significant difference between the two groups.
- Analysis PP (Tab. 2):** The scores of the women who actually gave birth in the midwife-led unit (n = 34) ranged between 33 to 70. The women in the obstetrician-managed unit (n = 107) between 25 to 70. [p-value 2-sided = 0.0040, Wilcoxon test] Women in the midwife-led unit significantly experienced a higher level of control.

Labour Agency Scale	intention-to-treat		
	Obstet.	Midwife	All
n	107	76	183
.	39	16	55
minimum	25.0	31.0	25.0
median	58.0	60.0	59.0
mean	56.4	58.5	57.3
maximum	70.0	70.0	70.0
stand.deviat.	8.8	8.8	8.9
Wilcoxon test	z-value	p-value NV 2-sided	
7621.5000	1.7829	0.0746	

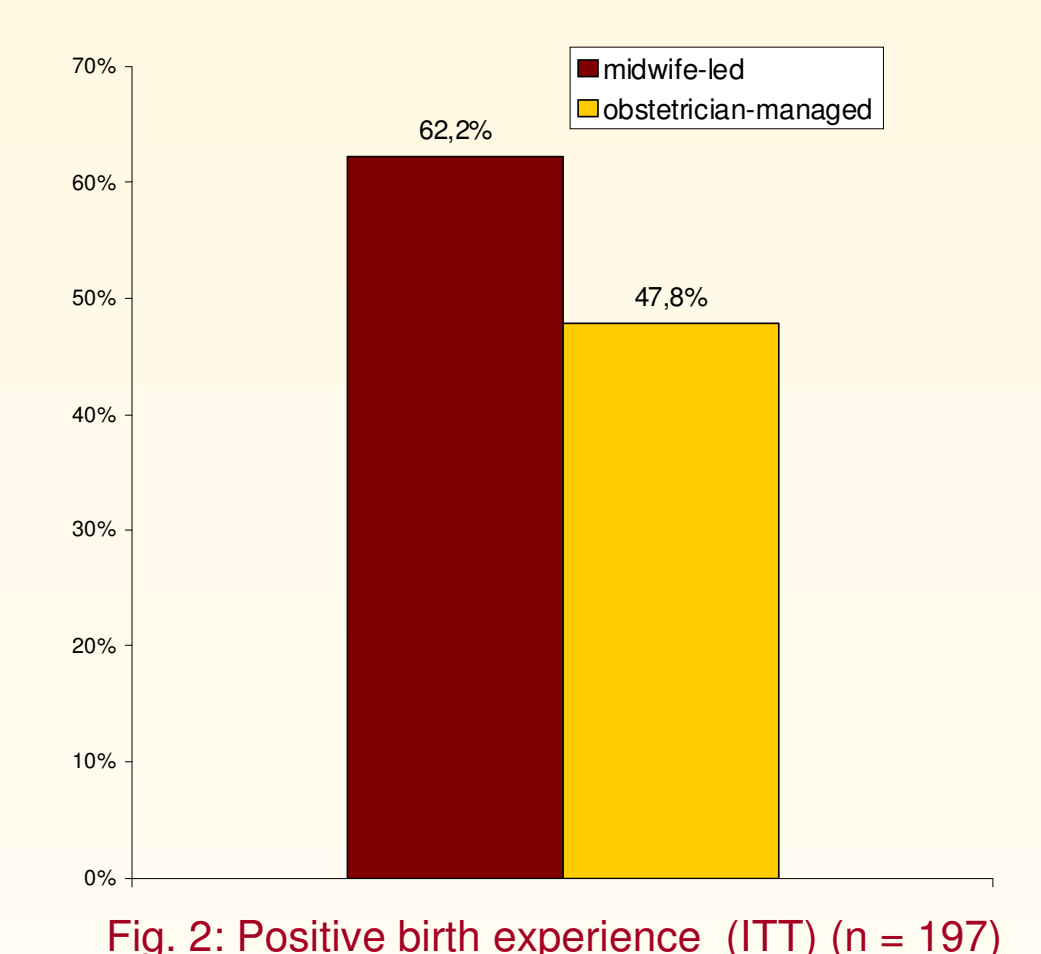
Tab. 1: Labour Agency Scale (ITT) (n = 183)

Labour Agency Scale	per-protocol		
	Obstet.	Midwife	All
n	107	34	141
.	39	7	46
minimum	25.0	33.0	25.0
median	58.0	63.0	59.0
mean	56.4	60.7	57.4
maximum	70.0	70.0	70.0
stand.deviat.	8.8	8.5	8.9
Wilcoxon test	z-value	p-value NV 2-sided	
3011.0000	2.8779	0.0040	

Tab. 2: Labour Agency Scale (PP) (n = 141)

5c Results - Birth experience

- Participants were asked to appraise their birth experience on a 5-point scale from (1) 'very pleasant' to (5) 'very unpleasant'.
- Analysis ITT (Fig. 2):** The women in the intervention group (62.2%) had significantly more often a positive birth experience than the women in the control group (47.8%). [OR 1.90; 95%-CI 1.04-3.45, p=0.0367]



6 Discussion

This is the first clinical trial in Germany on the scope of midwife-led care. Limitations of this study are the small sample size. Further there was no random allocation possible. Some results on differences between the models don't seem very distinct. This could be due to the fact that midwives work in both models of care.

The clinical trial *Multicenter study midwife-led unit with advanced issues* is being continued in four German hospitals with midwife-led units from February 2007 till January 2010.

7 Conclusions

- Generally the results of this study are comparable to findings of international studies in the range of midwife-led care.
- This study explored for the first time the factor 'control' women perceived during labour and birth in two different models of care.
- The high response rate (83.2%) shows a great interest of the women in participating.
- The results demonstrate the potential of the new model of midwife-led care, particularly with regard to a woman and family centred care.