

Consideration of the information needs of pregnant women with elective caesarean section in antenatal classes – a qualitative study from the perspective of midwives: Study Protocol

Title	Consideration of the information needs of pregnant women with elective caesarean section in antenatal classes – a qualitative study from the perspective of midwives: Study Protocol
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Abstract	<p>Background: Qualitative studies show that pregnant women often feel inadequately prepared for a caesarean section (CS) in antenatal classes. To date, no data have been published in Germany on the attendance of antenatal classes by women with elective CS, nor are the reasons for their attendance or non-attendance known. Antenatal classes offer pregnant women a lot of valuable information beyond the topic of vaginal birth, therefore they are also important for pregnant women with elective CS. The study will explore the demand for antenatal classes among pregnant women with elective CS from the midwives perspective, along with factors that either hinder or promote their attendance. Additionally, the study aims to assess the information needs of pregnant women with elective CS in antenatal classes from the midwives' perspective and how</p>

	<p>these information needs could be addressed better in antenatal classes as well as the extent to which (elective) CS is covered in antenatal classes.</p> <p>Methods: The study population consists of midwives who practice in Germany, currently provide antenatal classes and are experienced in giving antenatal classes. In their antenatal classes, they should have experience with pregnant women with elective CS, if possible. The study will be conducted as semi-structured expert interviews and the data will be evaluated using Mayring's qualitative content analysis.</p> <p>Discussion: This study is an opportunity to gain a comprehensive picture from the midwives' perspective. It will be complemented by a mixed-methods study exploring the topic from the perspective of pregnant women with elective CS. The midwives' perspective allows for an overarching perspective including whether suggestions for improvement can be implemented. A possible selection bias in the study population may limit the results. Midwives who value CS education are more likely to participate in the study than those who do not.</p> <p>Ethics: Ethical approval for the study was obtained by the Medical Ethics Committee of the University of Witten/Herdecke. Results will be published in a relevant scientific journal and communicated to interested participants (when demanded).</p> <p>Ethical approval date: 4th October 2023</p> <p>Estimated start of the study: 11th October 2023</p>
Key words	<p>Antenatal classes; Elective Caesarean Sections; Pregnant Women; Germany; Qualitative Study</p>

Introduction

Background and rationale

Antenatal classes are defined as structured programmes for expectant parents that provide information and skills to prepare for childbirth, parenthood and postnatal care (1). Pregnant women attend antenatal classes to reduce their fear of childbirth and labour (1), to prepare them for the process of giving birth and becoming parent as well as to feel confident in handling the newborn (2). Additionally, antenatal classes provide a social network and an opportunity to share experiences (3).

In Germany, midwives mainly provide antenatal classes. Entitlement to midwifery care is regulated by law in §§ 24c and 24d SGB V. The content of antenatal classes is regulated in § 134a SGB V. In addition to topics and practical exercises related to vaginal birth, many other topics related to pregnancy and preparation for parenthood are covered. These include topics such as breastfeeding, newborn care, and information about the postnatal period.

Out of a total of 765,694 persons who gave birth in 2021, 236,869 had a CS. This represents a CS rate of 30.9% (4). CS is one of the most common surgical procedures performed on women (5) and is nowadays considered a safe surgical procedure that can prevent maternal and neonatal mortality and morbidity when medically indicated (6).

Qualitative studies have shown that CS are often associated with negative experiences of childbirth, and that pregnant women do not feel adequately prepared for this surgical procedure in antenatal classes (7, 8). Differentiated data on participation in antenatal classes based on the mode of delivery¹ have not been published so far. Unpublished data suggest that pregnant

¹ The mode of delivery can be categorised into three types: spontaneous vaginal birth (without surgery), operative vaginal birth (using instruments such as forceps or vacuum), operative CS, where the baby is delivered through a surgical incision in the abdominal wall (9, 10).

women with elective CS² are less likely to attend antenatal classes than those planning a vaginal birth. To date, there is no published data on the reasons of pregnant women with elective CS for attending or not attending antenatal classes, thus any discussion of this can only be speculative. As antenatal classes cover topics that go beyond vaginal birth, they are also relevant to this group of pregnant women. Furthermore, it would be important to include CS in antenatal classes for pregnant women planning a vaginal birth, because they may unexpectedly find themselves in a situation where an unplanned CS is required and proper preparation for a planned CS would benefit them.

Objectives

The aim of the study is to investigate the demand for antenatal classes among pregnant women with elective CS, as well as the barriers and facilitators that influence their attendance from the midwives' perspective. Furthermore, the study aims to assess the midwives' perspective on the information needs of pregnant women with elective CS in antenatal classes, on the extent to which the (elective) CS is covered in antenatal classes, and on how these information needs could be better addressed in antenatal classes.

Methods

Rationale for the Methodological Approach

Qualitative research provides a comprehensive and detailed analysis. Furthermore, it provides a high potential to build new theories and to explore previously unknown facts and circumstances. In particular, qualitative studies seek to capture the individual perspective of the respondent (12).

² A distinction is made between elective CS, which is planned in advance, and unplanned CS, which is performed if there are complications during childbirth (11).

Design

This study will use semi-structured interviews to answer the research questions. We will develop a semi-structured interview guide to provide guidance and structure during the interview and comparability in the subsequent evaluation. Before starting the study, we will pretest the interview guide to ensure good comprehensibility and completeness of the questions (13).

Data Collection

We will include midwives who have experience in conducting antenatal classes in Germany and are currently offering them. We will only include midwives who have experience with pregnant women with elective CS in their antenatal classes, if enough midwives can be recruited who meet these criteria. Otherwise, we will also include midwives with no experience of pregnant women with elective CS in their antenatal classes. If they are included, we will adapt parts of the interview guide.

To recruit midwives, we will contact midwives in Germany by phone or email and ask midwifery associations to share the invitation to take part in the interviews in their newsletters or on their social media channels. In addition, the network of the Institute for Research in Operative Medicine will be used to support recruitment and the information about the study will be disseminated via private messengers and social media accounts.

Midwives who are interested in participating will receive an email with the study documents, such as participation information, consent form and privacy statement, prior to the interview. Furthermore, the email will request information on the characteristics relevant to heterogeneous composition of the sample, such as age, gender, and professional experience in conducting antenatal classes.

The interviews are conducted by telephone with approximately 15 midwives until content saturation is reached. A recording device is used to record the interviews, which are then

transcribed by an external service provider. Afterwards, the transcripts are reviewed by a member of the study team. There are no physical or mental risks to consider during the study. Participants will be informed of the content and the objectives of the study and will agree to take part in advance. They provide written consent in advance for the conduct of interviews as well as data recording and processing.

Data Analysis

The systematic analysis of the guideline-based expert interviews will be based on Mayring's qualitative content analysis (13). It will be carried out using MAXQDA data analysis software.

	2023				2024
Month	Sep.	Oct.	Nov.	Dec.	Jan.
Preparing the interviews	End 30th Sep.				
Recruitment of midwives		Beginn 11th Oct.		End 7th Dec.	
Conducting the interviews		Beginn 23rd Oct.		End 7th Dec.	
Data Analysis					End 7th Jan.

Table 1: Time Schedule

Discussion

Antenatal classes are attended by a significant percentage of pregnant women worldwide and are particularly popular with first-time mothers (14). However, antenatal classes vary widely in terms of topics, group size, duration, didactics or methodology, making it difficult to compare different studies on antenatal classes. Therefore, the evidence for antenatal classes is considered to be uncertain (1, 15).

Primary studies show that antenatal classes have an impact on a range of outcomes. Examples include improvements in pregnant women's competence and knowledge (16), reduced incidence of depression (17), and a shorter hospital stay after a CS (18). A reduction in the CS

rate is also often used as an outcome in studies of antenatal classes, and effects have been observed (17, 19). For example, antenatal classes have been shown to reduce the incidence of CS in pregnant women at low medical risk (20). On the contrary, there are studies that show no effect of antenatal classes on the CS rate (1, 21).

This study provides an opportunity to gain an overarching picture from the midwives' perspective of how the topic of (elective) CS is covered in antenatal classes in Germany and what they think about the information needs of pregnant women with elective CS, in order to determine from this whether there is a need for action. Furthermore, this study can identify weaknesses and areas for improvement in meeting the information needs of pregnant women with elective CS in antenatal classes and includes whether suggestions for improvement can be implemented. Accordingly, the study provides an incentive for midwives participating in or reading this study to reflect on their approach to the topic in their antenatal classes. Additionally, gathering information about the reasons of pregnant women with elective CS for attending or not attending antenatal classes might help to reduce barriers and to target pregnant women for participation.

For comprehensive results on the topic, it is important to consider the perspective of pregnant women with elective CS, as well. Accordingly, this study will be complemented by a mixed-methods study exploring the topic from the perspective of pregnant women with elective CS.

It is unclear whether we will be able to recruit enough midwives with experience of pregnant women with elective CS into their antenatal classes. For midwives without experience it is more difficult to answer the questions; they can only draw on the experience of colleagues. Even if we adapt the questions accordingly in the interview guide, we will not be able to compensate for the lack of experience. Therefore, we would prefer to include midwives with experience of pregnant women with elective CS in their antenatal classes in our sample. There may be a selection bias in the study population. For example, midwives, who feel that CS is an important

issue, may be more likely to take part in the study than midwives who do not feel that education about CS is important.

Declarations

Research ethics approval

We received approval from the ethics committee of the Witten/Herdecke University.

Protocol amendments

Any changes or modifications to the study protocol can only be authorized by the project leader and will be made transparent as amendments in the study protocol. The ethics committee will be informed of any substantial changes to the study protocol. If necessary, the ethical approval will be updated.

Data Statement

The datasets generated during the study are not publicly available.

Authors' contributions

Sandra Jaax and Nadja Könsgen drafted the manuscript. Barbara Prediger is a member of the study team that have contributed to specify the study design. All authors have revised the manuscript critically for important intellectual content.

Competing Interests

The authors declare that they have no competing interests.

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List of Abbreviations

CS	Caesarean Section
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