

# Information Needs of Women with Planned Caesarean Section in the Context of Antenatal Classes – Study Protocol for a Qualitative Study

<b>Title</b>	Information Needs of Women with Planned Caesarean Section in the Context of Antenatal Classes – Study Protocol for a Qualitative Study
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<b>Abstract</b>	<p><b>Background:</b> Studies have shown that attending antenatal classes is associated with a more positive pregnancy experience as well as increased feelings of confidence and self-efficacy. However, while the topic of caesarean section (CS) is usually only covered briefly in such classes, it remains unclear to what extent women planning a CS feel addressed by these courses and actually make use of them. The existing body of research only provides limited evidence in this regard. Yet, these women could equally benefit from the advantages that antenatal classes offer. The aim of this study is to investigate the demand and information needs of (currently and previously) pregnant women with a planned CS in the context of antenatal classes. Additionally, the study seeks to identify the specific preferences of these women regarding the content, timing, delivery format, and structure of antenatal classes, in order to inform a more needs-oriented course design.</p> <p><b>Methods:</b> The study population consists of women who are either currently pregnant</p>

	<p>and planning a CS (Survey 1), as well as women who have been pregnant in the past and have personally experienced a planned CS (Survey 2). Furthermore, only women who attended an antenatal class during their pregnancy in which a CS was planned will be included. The study will be conducted as semi-structured interviews and the data will be evaluated using Mayring’s qualitative content analysis. Participants for the two surveys will be recruited via midwives, gynecological practices, and social media platforms (Facebook and Instagram) using digital and printed recruitment materials, group posts, and influencer collaborations.</p> <p><b>Discussion:</b> This study offers the opportunity to gain a comprehensive understanding of the informational needs of women with a planned CS in antenatal classes. It includes the perspectives of both currently and previously pregnant women, allowing for prospective and retrospective insights. The findings from both groups will complement each other and can inform improvements in course content and structure. A potential selection bias may limit the findings, as participants with strong opinions or particular experiences may be more likely to take part.</p> <p><b>Ethics:</b> Ethical approval for the study will be obtained from the Medical Ethics Committee of the University of Witten/Herdecke. Results will be published in a relevant scientific journal and communicated to interested participants upon request.</p> <p><b>Estimated start of the study:</b> June 2025</p>
<p><b>Key words</b></p>	<p>Antenatal classes; Planned Caesarean Sections; Pregnant Women; Germany; Qualitative Study</p>

# **Introduction**

## **Background and Rationale**

Antenatal classes are a central component of prenatal care, designed to support expectant parents throughout pregnancy and to prepare them as effectively as possible for childbirth and the postpartum period (1). Studies have shown that participation in such classes is associated with a more positive pregnancy experience, as they significantly contribute to physical, emotional, and social well-being (2). In addition, they can be helpful for establishing a social network with like-minded individuals (1).

In 2023, 32.6% of all hospital births in Germany were performed via caesarean section (CS), the highest rate recorded since 1991 (3). Despite the rising rates of CS, conventional antenatal classes primarily target pregnant individuals planning for a vaginal delivery. The topic of CS is typically only addressed peripherally (4). However, individuals expecting a CS often face specific questions and uncertainties regarding the medical procedure and the postoperative experience. In addition, they may also benefit from information provided in antenatal classes that goes beyond the procedure itself – such as preparing for life with a newborn, physical and emotional recovery, or topics commonly discussed in the context of vaginal birth (5). It remains unclear to what extent individuals with a planned CS feel addressed by such courses.

## **Objectives**

The aim of this study is to investigate the demand and information needs of (currently and previously) pregnant women with a planned CS in the context of antenatal classes. Additionally, the study seeks to identify the specific preferences of these women regarding the content, timing, delivery format, and structure of antenatal classes, in order to inform a more needs-oriented course design.

## **Methods**

### **Rationale for the Methodological Approach**

Qualitative research enables a comprehensive and detailed analysis including the generation of new theories. A key focus of qualitative studies lies in capturing the individual perspective of participants (6).

## **Design**

To address the research questions, this study will employ semi-structured interviews. A corresponding interview guide will be developed to offer orientation and consistency during the interviews, as well as to ensure comparability in the analysis. Prior to data collection, the interview guide will be pretested to verify the clarity and completeness (7).

## **Data Collection**

We will include women in the study who are either currently pregnant and planning a CS (Survey 1), as well as women who have been pregnant in the past and have personally experienced a planned CS (Survey 2). Furthermore, only women who took part in antenatal classes while planning a CS were included.

Participants for the two surveys will be recruited through the following channels:

Firstly, participants will be recruited via midwives and gynecological practices. Practices will be contacted by phone or email with a brief explanation of the study, eligibility criteria, and interview process. Recruitment materials (e.g. digital or printed flyer or short announcement) will be provided for display or direct sharing with interested women.

Secondly, recruitment will be conducted via social media platforms, particularly Facebook and Instagram. Relevant Facebook groups will be used, and pre-written invitations will be posted or sent via direct message. On Instagram, selected influencers will be asked to share the invitation via their stories. Alternatively, direct messages may be sent to relevant followers.

In addition, snowball sampling will be used for recruitment. Participants who have consented will receive a brief study information package, including a flyer, which they can share with other women with a planned CS in their network. This approach aims to expand the reach of recruitment and facilitate access to potential participants.

Women 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, educational background and place of residence.

For each survey, telephone interviews will be conducted with up to 15 women per group, continuing until content saturation is reached. The interviews will be recorded using a

recording device and subsequently transcribed with the software *Sasaya* (8). Afterwards, the transcripts will be reviewed by the interviewer. The study involves no anticipated physical or psychological risks for participants. Prior to participation, individuals will receive detailed information about the study’s purpose and content and will be asked to provide their written consent for both the interview and the recording and processing of their data.

## Data Analysis

The systematic analysis of the guideline-based interviews will be based on Mayring’s qualitative content analysis (7). For this purpose, the data analysis software MAXQDA will be used.

	2025			
Month	May	Jun.	Jul.	Aug.
Preparing the interviews	End May			
Recruitment of participants		Begin June	End July	
Conducting the interviews		Begin June	End July	
Data Analysis			Begin July	End August

Table 1: Time Schedule

## Discussion

Antenatal classes represent a widely utilized form of childbirth preparation, especially among first-time mothers (9). Despite their popularity, the structure and content of these classes differ significantly in terms of thematic focus, pedagogical approach, group composition, and duration. This heterogeneity poses challenges for the systematic evaluation and comparison of their effectiveness, contributing to an overall inconclusive evidence base (10, 11).

These classes offer an important setting for preparing expectant mothers for childbirth and parenthood. Studies have shown that antenatal classes can improve pregnant women’s knowledge and self-efficacy (12), are associated with shorter hospital stays following CS, and may reduce the incidence of postpartum depression (13, 14). However, there is limited research on whether these classes adequately serve those planning a CS (10). Existing

programs may not provide the tailored information or support that this group requires, potentially leading to uncertainty, anxiety, or feelings of exclusion (15). Understanding how pregnant women with a planned CS perceive antenatal classes, what topics they find most relevant, and how these can be better addressed is essential for improving the inclusivity and utility of such educational offerings.

This study provides an opportunity to gain a comprehensive understanding of how pregnant women with a planned CS perceive antenatal classes in terms of relevance, content, and structure. By including both currently and previously pregnant women, the study captures prospective expectations as well as retrospective evaluations. This dual perspective helps to identify gaps in the way antenatal classes address the needs of this specific group. A previous study has already been conducted to assess midwives' perspectives on this topic (16). The perspectives of pregnant women collected in this study will be compared with the midwives' assessments in order to create a well-founded basis.

The findings may reveal barriers to participation and provide insight into which topics are seen as particularly relevant or missing. The study can thus contribute to the development of more inclusive and tailored antenatal education offers. To gain an even broader understanding of these barriers, it would be valuable in future research to also include women with a planned CS who decided against participating in antenatal classes. Their experiences and reasons for non-participation could further enrich the findings.

A potential limitation of this study is selection bias within the study population. For example, women who had negative experiences in antenatal classes or who had a higher need for information regarding their planned CS might be more likely to participate in the study than those who were satisfied with their antenatal class.

# **Declarations**

## **Research ethics approval**

Ethical approval for the study will be obtained from the Medical Ethics Committee of the University of Witten/Herdecke.

## **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**

Maren Ohle and Laura Eisenbach drafted the manuscript. Nadja Könsgen and Barbara Prediger are members of the study team that has 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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