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Role of prelabour midwifery consultation in enhancing maternal satisfaction and preparedness for birth

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Abstract

Objectives: Individual prelabour midwifery consultations were introduced at the Ljubljana Maternity Hospital to provide pregnant women with personalized information and support regarding childbirth. This study evaluated women's satisfaction, perceived preparedness, and trust in the care team.

Methods: We conducted a two-part cross-sectional study. In the first part, routine hospital records were analysed to compare obstetric intervention rates between women who attended and those who did not attend the consultation. In the second part, a questionnaire survey assessed women's satisfaction with the consultation and their perceptions of its impact on childbirth.

Results: Of 760 respondents (66.5 % response rate), 91 % reported a positive impact on their birth experience. The consultations enhanced preparedness, confidence, and trust in healthcare providers. The individual format was highly valued, helping women set realistic expectations for childbirth. Areas for improvement included breastfeeding support and postnatal follow-up. No significant differences were observed in obstetric intervention rates between consultation attendees and non-attendees.

Conclusions: Prelabour midwifery consultations are highly valued by pregnant women and contribute to psychological preparation, trust, and satisfaction with childbirth. While they do not influence clinical outcomes, these consultations represent an effective supportive practice that can be integrated into maternity care, with potential enhancements in breastfeeding guidance and postnatal follow-up.

Keywords: prenatal consultation; midwifery care; maternal satisfaction; birth preparation

Introduction

Prenatal education and individualized prelabour consultations aim primarily to enhance maternal satisfaction, reduce anxiety, and improve the overall experience of childbirth rather than directly reducing maternal or neonatal morbidity. While group classes provide general information about pregnancy, childbirth, and postpartum care, individual consultations allow tailored guidance and emotional support, promoting trust in healthcare providers. Slovenia has a long tradition of implementing group education for expectant parents, carried out by health centres, maternity hospitals, and private individuals [1, 2]. The University Medical Centre Ljubljana's Division of Gynaecology and Obstetrics was the first in Slovenia to introduced the so-called "psychoprophylactic preparation for childbirth" in 1955. Over the decades, it has developed into so-called "parenting classes", which are today implemented in accordance with the instructions of the Rules for the Implementation of Preventive Health Care at the Primary Level issued by the Ministry of Health [2, 3]. The programme includes extensive lectures on a range of subjects, including pregnancy, childbirth, psychological preparation, breastfeeding, nutrition and care of the newborn, and promotion of maternal well-being, dental education, the use of contraception after childbirth, the basics of legal and social protection during pregnancy and the postpartum period, and a demonstration of regular physical exercises [1]. In addition to the midwives who led the course, there are other participating healthcare professionals, i.e., paediatricians, anaesthesiologists, physiotherapists, psychologists, dentists, and also experts in the field of safe driving. Prenatal educational content in various forms has long been associated with improved maternal confidence, emotional readiness, and satisfaction with the birth experience. Prenatal education increases both the women's and their partners' knowledge of the signs of the onset of labour, the course of labour, and

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information on intrapartum pain management. Such courses have been proven to reduce maternal anxiety, improve preparedness for childbirth, and increase trust in healthcare providers, rather than directly affecting clinical outcomes [4]. Prenatal education courses are a low-input, high-yield resource that can empower mothers by providing them with relevant information and support, ensuring a positive and confident experience of childbirth [5].

In addition to formal birth preparation classes offered in community health centres, maternity hospitals, and maternity wards, expectant parents now have access to a wide range of prenatal education programs from various providers [4].

Purpose and goals

The midwives of the Ljubljana Maternity Hospital recognized that pregnant women needed more detailed information on the topic of childbirth and treatment at our maternity hospital. To address this, we organized the "prelabour midwifery consultation". This initiative involves an individual consultation between a pregnant woman or couple and one of the midwives working in the labour ward. Due to the positive responses to the program, we wanted to evaluate and analyse the individual model of prelabour midwifery consultation at the Ljubljana Maternity Hospital using the available data.

Subjects and methods

This study employed a retrospective–prospective mixed design, consisting of two complementary components aimed at providing a comprehensive evaluation of the prelabour midwifery consultation model at the Ljubljana Maternity Hospital. This approach was chosen to allow integration of objective clinical data with subjective patient-reported outcomes, thereby providing both contextual and experiential insight into the consultation program. In the retrospective component (Part 1), routinely collected hospital records were analysed to describe the demographic and obstetric characteristics of women who attended the prelabour consultation compared to those who did not. The analysis focused on potential associations between consultation attendance and the incidence of selected obstetric interventions, including induction and augmentation of labour, episiotomy, and emergency caesarean section. All data were fully anonymized, and no direct participant contact was involved. In the prospective component (Part 2), an anonymized online survey was conducted among women who had participated in the prelabour consultation to assess their perceptions of preparedness, satisfaction, and the perceived impact of the consultation on their birth experience. Eligible participants were contacted via email, and responses were collected and analysed anonymously. This component provided qualitative and quantitative insights into women's perspectives, complementing the retrospective analysis of clinical data. Together, the retrospective and prospective components form a coherent mixed-method framework that enables a multidimensional understanding of both clinical outcomes and women's subjective experiences related to the prelabour consultation.

For the second part, an online evaluation questionnaire was specifically developed for this purpose. The questionnaire used in the prospective component was self-developed, as no validated instrument existed for this type of intervention, and therefore has not undergone formal psychometric validation. To enhance content validity, the questionnaire was reviewed by a panel of three experienced midwives and three obstetricians for clarity, relevance, and completeness, and minor revisions were made based on their feedback.

The first section of the questionnaire included demographic questions. The second section assessed satisfaction with the prelabour midwifery consultation, and the third section explored the perceived impact of the consultation on the birth experience. The questionnaire contained a total of 17 questions. Responses in the second and third sections were rated using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Intervention description

The prelabour midwifery consultations were offered individually during the third trimester, typically after 37 weeks of gestation, and each session lasted approximately 45–60 min. Midwives followed a standardized content framework covering recognition of labour signs, orientation to the maternity unit, common obstetric interventions, intrapartum pain management, postpartum support services, and opportunities for women to discuss individualized questions or concerns. All consultations were conducted by registered midwives with at least three years of clinical experience, who received internal orientation to ensure consistency while still allowing for personalized discussion. These details are provided to enhance reproducibility and enable readers to understand and potentially implement a similar consultation model.

Sample description

In the first part of the study, an analysis was conducted on data from births at our institution in 2024. A sample size of

711 births or women in labour who had a prelabour midwifery consultation was compared with a sample of 3,227 women in labour who had not had a prelabour midwifery consultation.

The second part of the study consisted of a survey conducted from January 2025 to March 2025 for the second part of the study. All women who attended a prelabour midwifery consultation in 2023 or 2024 and provided an email address as a point of contact received a link to the evaluation questionnaire. A link to the online questionnaire was distributed to 1,142 participants in prelabour midwifery consultations. Of these, 760 women completed the questionnaire, resulting in a 66.5 % response rate. Response bias is acknowledged, as non-responders may differ systematically from responders in demographic or clinical characteristics.

Inclusion criteria

Inclusion criteria for the study were defined as follows: women who attended a prelabour midwifery consultation during the period 2023–2024 and who provided a valid email address that allowed us to contact them for participation in the survey.

Exclusion criteria

The exclusion criteria were defined as follows: women who did not attend a prelabour midwifery consultation, women who did not provide contact information or declined to participate in the survey, and survey responses with missing key outcome variables such as satisfaction or perceived preparedness, which were excluded from the final analysis.

Handling of missing data

Missing data were handled using listwise deletion, meaning that only questionnaires with fully completed responses for the key outcome variables were included in the analysis. This approach ensured that both descriptive and inferential statistics were based on complete information; however, we acknowledge that this method may introduce slight bias if the missing data were not completely random.

Sample size justification

No formal *a priori* sample size calculation was performed for the survey, as the sample reflects all eligible women during the study period. The achieved sample of 760 responses is relatively large and provides sufficient data to describe satisfaction and perceived preparedness; however, the study was not designed or powered to detect small differences in obstetric outcomes.

Description of the research process and data processing

In the first part of the study, we compared the demographic and clinical characteristics of pregnant women who participated in the prelabour midwifery consultation and pregnant women who did not. We used the Student's *t*-test and the chi-square test for comparison. We examined whether attending a prelabour midwifery consultation was associated with the likelihood of induction of labour, augmentation with oxytocin, episiotomy, or emergency caesarean section. To account for potential confounding factors, we adjusted the analyses for parity, maternal age, and body mass index (BMI; categorized as underweight <18.5 kg/m^2, normal weight 18.5–24.9 kg/m^2, overweight 25.0–29.9 kg/m^2, and obese≥30 kg/m^2). Multivariate logistic regression was applied for these analyses. We excluded planned caesarean sections before the onset of labour from this analysis. We defined a p value <0.05 as statistically significant. For the statistical analysis, we used the SPSS v27 program (IBM, Amrok, New York, USA).

The questionnaire results were presented based on descriptive statistics. The study was approved by the Committee for Professional and Ethical Issues of the University Medical Centre Ljubljana. Retrospective data were fully anonymized, so no individual consent was required. For the prospective survey, participants received information about the study and provided implied consent by completing the questionnaire. All data were anonymized and handled in accordance with Slovenian and EU data protection regulations.

Results

The results demonstrated that pregnant women who attended prelabour midwifery consultation were on average older than those who did not attend (33 ± 5 years vs. 31 ± 5 years; p<0.001). Furthermore, they also had a lower BMI (24 ± 4 kg/m2 vs. 25 ± 5 kg/m2; p<0.001). The consultation was more frequent among first-time mothers (495 (70 %) vs. 1448 (45 %); p<0.001).

After adjusting for differences in age, parity, and BMI between groups, prelabour midwifery consultation was not

independently associated with the rate of induced labour (odds ratio (OR) 0.99; 95 % confidence interval (CI) 0.83–1.19). Furthermore, no significant correlation was observed between the proportion of oxytocin-augmented labour (OR 1.12; 95 % CI 0.93–1.35), episiotomies (OR 1.00; 95 % CI 0.62–1.61), or emergency caesarean sections (OR 0.89; 95 % CI 0.69–1.16).

We collected 760 (66.5 %) questionnaires that were validly completed. The majority of respondents were between 31 and 35 years of age (42 %), followed by the age group 26–30 years (33 %). The smallest proportion is represented by the age group 41–45 years (3 %). The majority of respondents had a university degree (48 %).

The majority of respondents attended a prelabour midwifery consultation before their first birth (78 %). In addition to the "prelabour midwifery consultation", 75 % of pregnant women also attended parenting classes organized in other healthcare institutions. As many as 19 % attended individual classes with private providers.

Vast majority of participants rated their overall satisfaction with the prelabour midwifery consultation as excellent (n=605; 80 %) and 98 % would recommend the consultation to other pregnant women. The highest satisfaction ratings were recorded for the topic "signs of labour onset and time to go to the maternity hospital". The lowest satisfaction rating was recorded for the topic "counselling and promotion of breastfeeding" (Figure 1).

The fact that the prelabour midwifery consultation takes place in an individual format was assessed as very important by most participants (n=653; 86 %), with only 12 (1 %) pregnant women assessed it as not important to them at all. The vast majority of women (n=674; 88 %) agreed that following the prelabour midwifery consultation, their expectations regarding the birth itself had become more realistic. Majority of participants agreed with the statement "After prelabour midwifery consultation, I was more positive about the birth" (n=246; 33 %) or completely agreed (n=431; 57 %), with only 8 % (n=64) of women were neutral towards the statement, and 15 women (2 %) expressing disagreement. The majority of women agreed with the statement "After prelabour midwifery consultation, I better understood the interventions and procedures that are possible during childbirth", with 36 % (n=272) of the participants in agreement with the statement and 51 % (n=389) of them expressing complete agreement. The statement "After prelabour midwifery consultation, I was less afraid of childbirth" was agreed by 32 % (n=241), 46 % (n=352) completely agreed, and 18 % (n=136) remained neutral. The vast majority of women (n=674; 89 %) also expressed agreement with the statement "After prelabour midwifery consultation, I had more trust in professional staff (midwives, doctors)" (Figure 2).

Furthermore, pregnant women also used the "prelabour midwifery consultation" as a tool for choosing a maternity

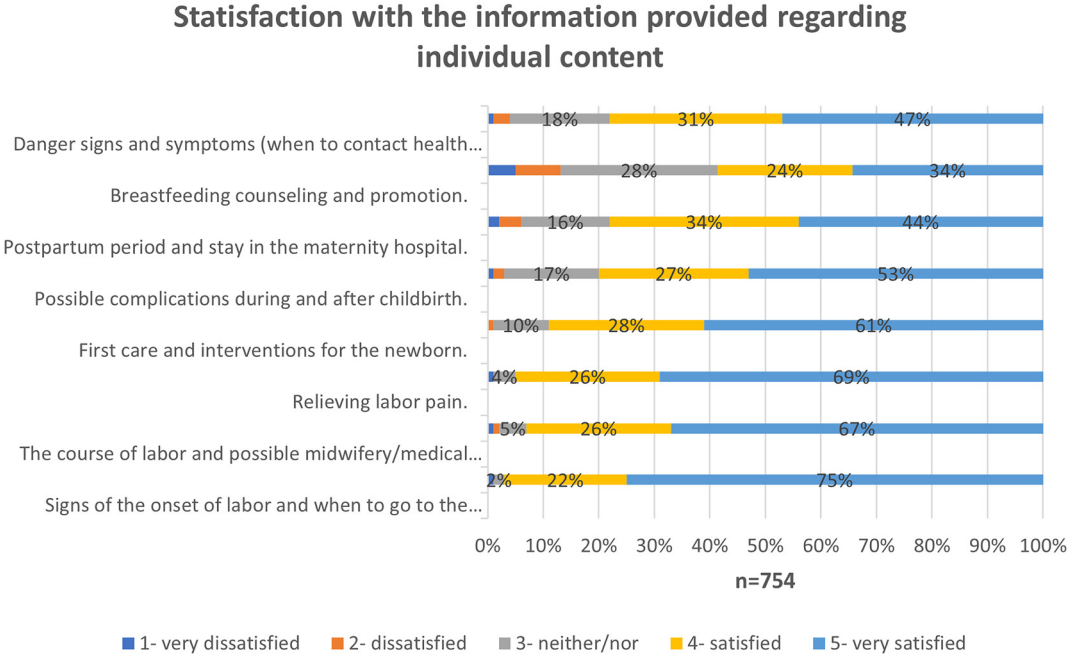

Figure 1: Satisfaction with the information provided regarding individual content.

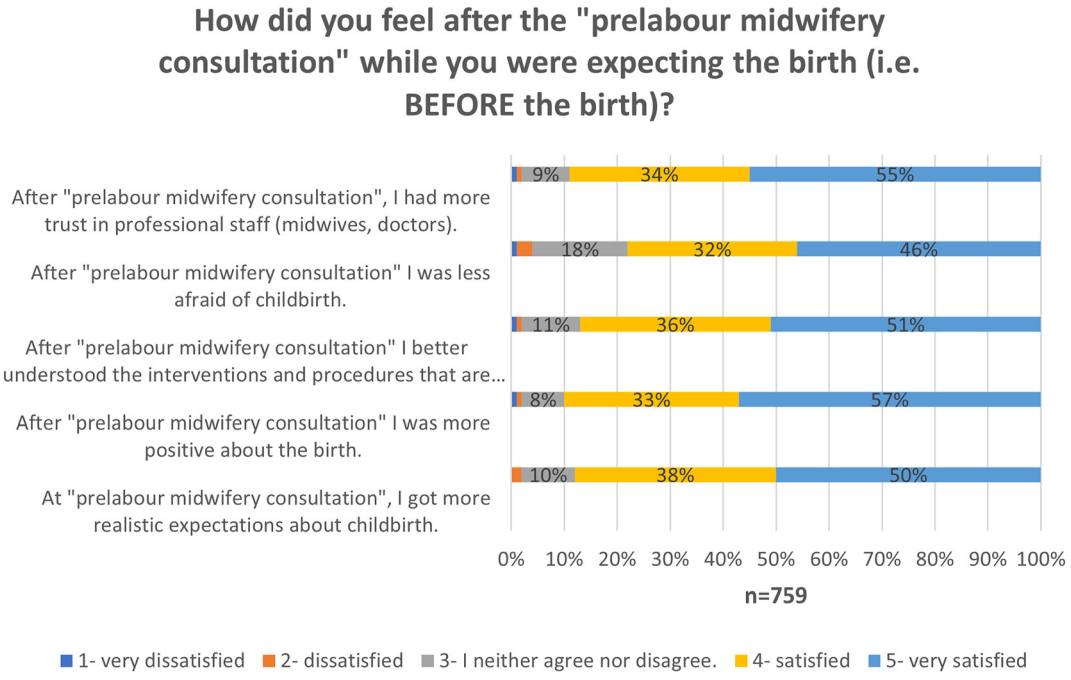

Figure 2: Feelings of respondents after attending consultation_before the birth.

hospital. In the survey, 43 % of respondents (n=323) indicated that they had selected the maternity hospital where they subsequently gave birth, with this decision being influenced by the "prelabour midwifery consultation". Among all respondents only 2 (4 %) gave birth elsewhere.

A total of 678 respondents (91 %) expressed the opinion that the prelabour midwifery consultation contributed to a better birth experience. A mere 2 % (n=21) disagreed with this statement and 7 % (n=53) were undecided. A total of 82 % (n=618) agreed or strongly agreed with the statement regarding their trust in healthcare personnel. The results also showed that 78 % of respondents (n=594) reported reduced fear levels during childbirth after participating in the "prelabour midwifery consultation". A group of 34 respondents (4 %) disagreed with the statement. The remaining participants were undecided about this statement (Figure 3).

Discussion

The findings of this study demonstrate that women who attended prelabour midwifery consultations reported a high level of satisfaction, with the vast majority rating the consultation as "excellent". Although the analysis did not reveal statistically significant associations between consultation attendance and obstetric interventions, the consultations were consistently described by participants as contributing to a greater sense of preparedness, reduced fear of childbirth, and increased trust in healthcare providers. These outcomes highlight the role of midwifery support not as a determinant of clinical procedures, but as a key element in shaping women's subjective birth experiences and emotional readiness. Our findings align with existing literature showing that structured, individualized conversations with midwives enhance women's confidence, sense of empowerment, and overall satisfaction with maternity care. Studies such as those by Sandall et al. [5] and Renfrew et al. [6] emphasize that the value of midwifery care lies in fostering trust, respecting women's autonomy, and supporting their involvement in decision-making, rather than necessarily altering intervention rates. In our study, participants particularly appreciated the friendly approach, the time dedicated by midwives, and the opportunity to feel heard – factors that likely contributed to their positive evaluations. The fact that consultations took place within the maternity ward itself may also have strengthened participants' familiarity with the environment and their confidence in the staff. At the same time, the study identified areas for improvement. Several participants reported insufficient focus on breastfeeding promotion, suggesting that greater emphasis on practical, evidence-based breastfeeding support should be integrated into prelabour consultations [1, 3]. This aligns with WHO and UNICEF guidelines, which recognize early breastfeeding support as a critical factor in maternal and

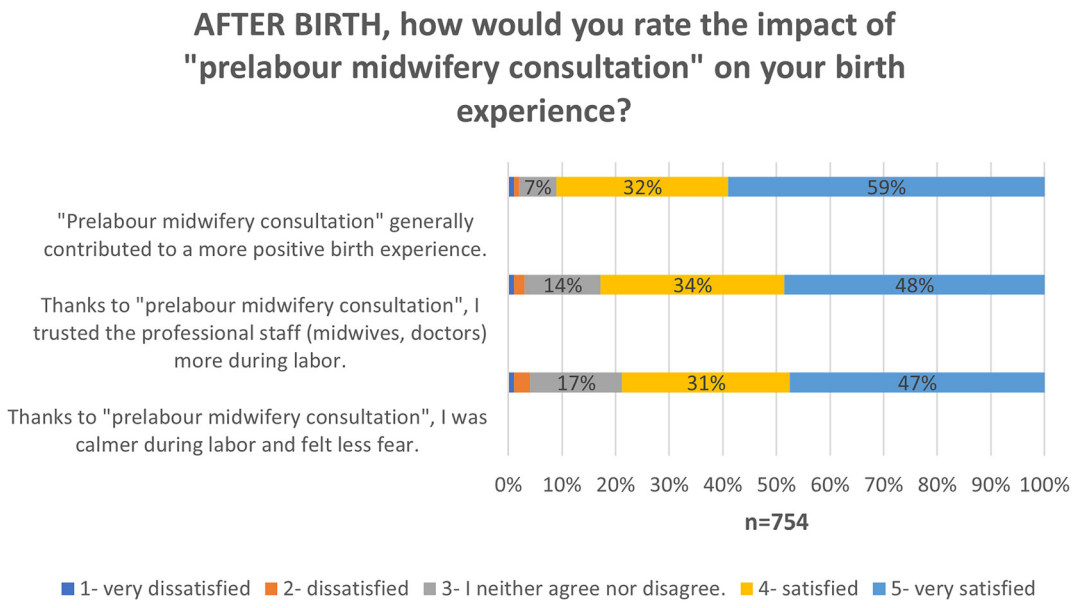

Figure 3: The impact of consultation on the experience of childbirth_postpartum.

child health [1]. A key strength of this study is its practical relevance, given that the model was evaluated in a real-world clinical setting with a large sample size and high response rate. While sample size may have been large enough for assessing satisfaction, the study was not powered to detect differences in clinical outcomes. Moreover, study findings are context-specific to a single institution which limits their generalizability. It also has to be mentioned that we used an ad-hoc questionnaire to assess maternal experience with the prelabour midwifery consultation, as no validated instrument was available that specifically captured women's experiences with this type of intervention. While this approach allowed us to explore relevant aspects of satisfaction in a tailored manner, it also represents a limitation of the study because the psychometric properties of the tool have not yet been established. Future research should focus on developing and validating standardized measures to ensure comparability and robustness of findings [6]. Finally, while the study highlights high satisfaction rates, it also acknowledges areas needing improvement – most notably in breastfeeding support – which were not explored in detail, leaving room for further investigation [1, 3].

Conclusions

This study demonstrates that prelabour midwifery consultations are highly valued by pregnant women, who reported increased satisfaction, enhanced trust in healthcare providers, and reduced fear of childbirth. Although the consultations were not associated with differences in obstetric intervention rates, they significantly contributed to women's emotional readiness, confidence, and overall birth experience. Areas for improvement remain, particularly regarding breastfeeding support, which should be more systematically integrated into consultation content. Future initiatives may also consider extending support into the postpartum period through follow-up midwifery conversations, further reinforcing maternal confidence and trust. On this basis, prelabour consultations can be recommended as an effective supportive practice that enhances women's preparation for childbirth, addresses their individual needs, and strengthens trust in maternity care, even if clinical outcomes are unchanged.

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Author contributions: All authors have accepted responsibility for the entire content of this manuscript and approved its submission.

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