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Risk and decision-making: Communication between health professionals and pregnant women at risk of preeclampsia in Catalonia

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ABSTRACT

The biomedical model of attention focuses on preventive risk assessment to mitigate the apparition of future diseases. In the event of a pregnancy classified “at risk” of preeclampsia, screening undertaken in first-term ultrasound controls determines which patients receive preventive treatment. This article examines women’s narratives on the communication dynamics with health professionals by drawing on an eight-month ethnographic fieldwork, between 2022 and 2023, in a Barcelona hospital’s obstetrics department and 24 semi-structured interviews with women in the postpartum period. The participants of this study had been classified at high risk of developing preeclampsia, which is determined through a screening undertaken during the first trimester of pregnancy, or had a diagnosis of preeclampsia. The results suggest that risk classification significantly impacts the decision-making process and the technical parameters. As we contend, participants experienced difficulties receiving quality information and communicating with professionals, making shared decision-making challenging. As we conclude, doctor-patient dialogue and shared decisions are increasingly replaced by institutional protocols where patients feel their knowledge and experiences have little room.

1. Introduction

The understanding of what is considered an optimal state of health at a given time varies socio-historically, a variation that we could explain by the socially constructed nature of what is considered healthy (Olafsdottir, 2013). Pregnancy has undergone a process of medicalization (Lantz et al., 2023) and overdiagnosis (Jutel, 2024). After being faced with high rates of medical intervention during childbirth, critical voices have emerged expressing concern about the negative consequences of such medicalization (Sarolkar, 2023).

Increasingly, pregnancy is viewed as a medical and risky event that must be treated preventively (Hausman, 2005; Hammer and Burton-Jeangros, 2013). Prenatal and birth care in hospital settings reflects what has been described as surveillance medicine (Armstrong, 1995), which shifts the focus from treating illness to treating the possibility of illness based on certain risk factors. The expansion of surveillance medicine leads to the problematization of normality, pathologization, and control (Armstrong, 1995, p. 395). In the same vein, Rose (2007) discusses how this expansion is part of a new biopolitical framework, where the governance of life itself falls under medical and scientific authority extending control over different aspects of human experience, including reproduction.

Scamell and Alaszewski (2012) state that although maternal and infant mortality rates decreased substantially between the 18th and 21st centuries, the proportion of pregnancies classified and treated as high-risk has increased. This data can be explained based on the process of pathologization of pregnancy and childbirth under the logic of reducing risk through greater surveillance and intervention on the pregnant body. This process depicts and constructs pregnancy and childbirth as a risky process open to medical intervention, as an inherently medical and risky event (Bessett, 2010; Richardson, 2021).

Regarding the implications of the risk management approach in pregnancy care, Waggoner (2017) discusses the growing emphasis on pre-pregnancy care in the United States in the 21st century as a strategy to improve birth outcomes. This approach integrates risk prevention into a broader cultural framework of maternal responsibility, starting even before conception. By advocating for actions such as taking folic acid to prevent fetal genetic abnormalities, managing conditions like obesity, hypertension, and diabetes prior to pregnancy, and ensuring prenatal care and delivery occur in hospital settings, this model places the responsibility on women’s behaviors and lifestyles as critical determinants of birth outcomes.

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Similarly, in her ethnographic work on pregnancy trials in the U.S. and the U.K., Valdez (2021) examines the growing emphasis on perinatal care to prevent risks and diseases in babies by controlling pregnant individuals' behaviors. Valdez argues that extensive research on external factors and behaviors affecting fetal health has informed interventions aimed at modifying women's lifestyles, such as their consumption habits and physical activity. Waggoner (2017) and Valdez (2021) underscore how the focus on women's actions before and after pregnancy is a gendered approach that overlooks the socioeconomic and racial inequalities that influence women's exposures and behaviors.

Lupton (1999) examines the embodied experience of pregnancy, showing the complex interplay between risk, identity, and societal expectations. She argues that surveillance induces self-regulation and exposes pregnancy to external appraisal to mitigate perceived risks to both the mother and the baby. This compels pregnant individuals to conform to idealized notions of motherhood centered on care and self-sacrifice, reinforcing standards of what constitutes a "good" mother.

Pregnancy risk screening aims to identify those who are most likely to develop complications before symptoms manifest, thereby classifying the pregnant woman as "at risk" during pregnancy and delivery. Social scientists have examined the impact of screening on individuals' reproductive pathways, as well as the implications of such classifications for reproductive policies in various regions of the world (Ginsburg and Rapp, 1995; Lupton, 2012; Waggoner, 2017). For example, research on women's experiences with amniocentesis has shown that women become "moral pioneers" (Rapp, 1999) when faced with new decisions about their reproductive future in the face of technological advances and innovative screening for high-risk pregnancies, such as the new screening for preeclampsia.

Addressing the process of subjectification that comes with risk classification, Smith-Morris (2005) explores the role of cultural interpretations of health and risk in the context of screened patients at high risk of developing gestational diabetes among Pima Indian Women. The author discusses the label "borderline" diabetes, used by clinicians in this context, to highlight the contested meanings it has for patients, often leading to confusion about their health status. Smith-Morris shows how being "at risk" is a culturally dependent experience that must be understood and acknowledged to implement effective education, prevention and risk mitigation policies.

Pregnant women may have varied experiences when classified as 'high-risk,' which can influence their shared decision-making (SDM) with healthcare professionals. In healthcare settings, adopting an SDM approach requires professionals to provide personalized information on available treatment options, potential outcomes, and associated uncertainties to support patients in making informed decisions about potential benefits and harms. For patients to feel adequately informed, SDM relies on provider competence, trustworthiness, cultural competence, patient/surrogate competence, quality of information and communication, decision-making roles, and involvement (Dy and Purnell, 2022). In their study of antenatal screening consultations in Hong Kong, Pilnick and Zayts (2016) suggest that the communication approach of professionals is influenced by the concerns expressed by patients in each individual consultation, leading to particular information delivery strategies and decision-making processes. While they show how professionals in their study adopt a non-directive stance, they argue that further research is needed to understand the contextual factors that intersect with the decision-making process in antenatal screening consultations.

High-risk classification may significantly impact the communicative context of decision-making, altering the dynamics of patient-provider interactions. This paper, therefore, examines how high-risk classifications influence the decision context and shape the communicative framework and interactional processes in collaborative healthcare decisions.

Preeclampsia is a pregnancy complication related to the placenta that can develop from the 20th week of gestation onwards, which can lead to severe damage to various organs of the pregnant woman, as well as fetal growth restriction. It is a leading cause of maternal death. Although the International Federation of Gynecology and Obstetrics (FIGO) advocated for universal screening for preeclampsia (Poon et al., 2019), there are significant disparities in its actual implementation, particularly in low- and middle-income countries (LMICs) (Malone et al., 2022).

Over the last decade, screening for preeclampsia has been implemented as routine in prenatal care in Catalonia. Catalonia is now among the high-income countries that have implemented a protocol that includes biochemical markers in preeclampsia screening, which is applied to all pregnant women. However, to our knowledge, the present study is the first to investigate the adoption and experience of this screening among pregnant women in Spain.

1.1. *Preeclampsia screening in Catalonia*

Preeclampsia has a prevalence of up to 10% worldwide, with a higher incidence in low-income countries due to a high prevalence of risk factors like diabetes, chronic hypertension, and cardiovascular disease (Villarroya et al., 2019). In case of a diagnosis of preeclampsia, the World Health Organization (2011) recommends the induction of labor to end the pregnancy so as not to evolve into eclampsia, which occurs when the pregnant woman goes into a convulsion. Eclampsia can also result in placental abruption, and renal and liver failure.

Since 2018, public hospitals in Catalonia have performed a screening for all those who attend the first-trimester ultrasound (week 12) to measure the probability of developing preeclampsia along with the screening for chromosomal alterations, such as Down syndrome. The preeclampsia calculation is based on maternal medical records, such as the history of preeclampsia in the family, the patient's age, weight, use of IVF, and twin pregnancy, which are combined with obstetric markers, such as blood pressure, ultrasound of the uterine arteries, and analysis of proteins in the blood responsible for the development of the placenta. Protocols may vary slightly between hospitals in the region. In other countries, such as the U.K. (https://view-health-screening-recommendations.service.gov.uk/pre-eclampsia/), doctors analyze maternal records, and, in high-risk cases, screening with obstetric markers is performed.

The screening results could impact the pregnancy care and prognosis that women across Catalonia receive. In addition to attending the routine visits with midwives in primary care every term, the high-risk patient undergoes consultations in a hospital for a prenatal examination focused on the possibility of developing preeclampsia. During these extra consultations, ultrasound scans are repeated to monitor the functioning of the uterine arteries and fetal development. This procedure, at the very least, doubles the number of visits.

A preeclampsia diagnosis is based on the presence of protein in the urine or blood pressure above 140/90 mmHg. The probability indicated by the screening must be 1/50 for a pregnant woman to be labeled as at high-risk for preeclampsia. Medium risk ranges from 1/51 to 1/500, and low risk is from 1/501 downwards.

The preventive treatment indicated for high-risk patients consists of taking aspirin from the 12th week to the 36th week of pregnancy. The study by Rolnik et al. (2017), commonly called the ASPRE study, has been established as a reference for medical guidelines. Using data from several international institutions, ASPRE found that aspirin use was associated with a 62% reduction in the incidence of preeclampsia when administered before the 37th week and 82% before the 34th week.

There are few studies on the perception of the information received about preeclampsia screening and diagnosis (see exceptions in Vega-Morales et al., 2016; Værland et al., 2016). In the study by Hansson et al. (2022), which focuses on women who developed preeclampsia in Sweden, participants mentioned the lack of information about the characteristics of the pathology in their healthcare follow-up and itinerary. They found that dialogue with professionals provided contradictory information and a sense of uncertainty, making it difficult to make informed decisions about their pregnancy and delivery.

This article fills a gap in the literature by investigating the experiences of women undergoing screening or diagnosis of preeclampsia. We analyze the participants' narratives regarding doctor-patient interactions, the information received about their health in the context of preeclampsia, the barriers to accessing information, the context of the decision, and their impacts on the decision-making process.

2. Method

This study addresses the experiences of pregnant women who underwent perinatal screening to determine their risk of developing preeclampsia. It draws on eight months of ethnographic fieldwork in a quaternary public hospital in Barcelona between 2022 and 2023, with an average of 1500 births per year. The empirical material covers 400 h of observations and 24 semi-structured interviews with pregnant women. The observation and interviews focused on pregnant women and their interactions with doctors, midwives, residents, and nursing assistants.

The primary observation setting was specialist gynecological visits for pregnant women with placental insufficiency. Placenta insufficiency could result in slow growth of the baby or risk of preeclampsia, and the visit always included an ultrasound and a discussion with an expert obstetrician. Other observed settings were the delivery room, the obstetric emergency room and postpartum hospitalization wards, where women are admitted between 24 and 48 h after delivery, and the pregnancy tests such as first trimester ultrasounds for preeclampsia screening. Finally, we also observed interactions in virtual childbirth preparation classes given by obstetricians and midwives for women in the third trimester of pregnancy and in postpartum consultations with midwives.

A "negotiated interactive observation" (Wind, 2008) was undertaken, in which we had a research role without interfering in the setting. Observations of the above-mentioned spaces were recorded immediately in a field diary after the consultations. The observations focused on the transmission of the information to patients and the decision-making process in the consultation room, the doctor-patient possibilities of dialogue, the patients' questions, how the fact of having a high-risk pregnancy is discussed with the patients, and the relationships between the different professionals in the healthcare team.

In-depth semi-structured interviews were conducted with 24 participants, 13 of whom were screened with a low risk of having preeclampsia but still developed it, and 11 of whom were at high risk and underwent aspirin treatment to prevent or delay the apparition of the disease. Out of this high-risk group, seven eventually developed preeclampsia. In the interviews, we discussed the impact that the risk or diagnosis of preeclampsia had had on their personal life, work and, more specifically, on their pregnancy, delivery, and postpartum experience; the information received about the disease and the labor induction process; and the decision-making process throughout their reproductive itinerary. Interviews were conducted between one week and three years postpartum. Being screened as high-risk or having had a diagnosis of preeclampsia was the only criterion for the participant sample. In two interviews, the partners of those with preeclampsia also participated.

The participants were recruited through a Spanish-language poster campaign throughout hospitals and public health centers in Catalonia and via targeted social media publications. During our observations in consultation, doctors explained the research and our role in the setting, and some patients indicated their interest in being interviewed. The interviewees decided on the interview format, whether face-to-face or online, and the conversations were conducted in Spanish, English, or Portuguese, with all participants having a high level of proficiency in one or more of these languages. The interviews lasted approximately an hour.

Nineteen participants carried out at least part of their follow-up in the hospital where the observations were taken, while five of them did their follow-ups in other hospitals. Their names and identifying details have been changed to ensure confidentiality.

Pseudonym	Interview language	Center where the follow-up was performed	Age	Recruitment form	Country of origin	History
Julia	Spanish	Hospital 1	42	Field work	Spain	High risk of preeclampsia, induced labor due to advanced gestational age.
Gemma	Spanish	Hospital 1 and Hospital 2	34	Field work	Spain	Low risk of preeclampsia, diagnosis at 37 weeks, induced labor.
Ana	Spanish	Hospital 1	41	Field work	Ukraine	High risk preeclampsia, diagnosis of preeclampsia at term, induction of labor.
Fernanda	Spanish	Hospital 1	39	Field work	Spain	Twin pregnancy. Low risk of preeclampsia. She presented risk factors for preeclampsia, and she asked but was not able to receive aspirin because she was considered low-risk. Diagnosed preeclampsia at 32 weeks, induction of labor at 34 weeks.
Laura	Spanish	Hospital 1	42	Field work	Spain	Low risk of preeclampsia, diagnosis preeclampsia at term, induction of labor.
Carolina	Spanish	Hospital 1	35	Field work	Venezuela	High risk of preeclampsia, but has not developed the disease. Elective Cesarean section.
Beatriz	English	Hospital 1	34	Field work	Cameroon	Low risk of preeclampsia, diagnosed preeclampsia at term. Induction of labor resulting in Cesarean section.
Johana	Spanish	Hospital 1	36	Field work	Paraguay	High risk preeclampsia, diagnosis of preeclampsia at 37 weeks, induction of labor.

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Pseudonym	Interview language	Center where the follow-up was performed	Age	Recruitment form	Country of origin	History
Leila	Portuguese	Hospital 1	35	Field work	Brazil	Low risk of preeclampsia, preeclampsia diagnosis at 39 weeks, induction of labor.
Roberta	Spanish	Hospital 1	34	Field work	Spain	Low risk of preeclampsia. Two induced deliveries. She presented risk factors for preeclampsia, and she asked but was not able to receive aspirin because she was considered low risk. Diagnoses preeclampsia at term.
Isadora	Spanish	Hospital 1	36	Field work	Italy	Low risk of preeclampsia. Preeclampsia diagnosed during labor. Spontaneous onset of labor, then induction.
Paula	Spanish	Hospital 1	37	Field work	Romania	First pregnancy screened with high risk of preeclampsia, diagnosed at 38 weeks, Cesarean section. Second pregnancy screened with high risk of preeclampsia, no diagnosis, induced at 40 weeks due to history.
Fabiana	Spanish	Hospital 3	33	Social networks	Spain	Low-risk of preeclampsia. She presented risk factors for preeclampsia, and she asked but was not able to receive aspirin because she was considered low risk. She had an emergency cesarean section and the baby died after five days. In the two subsequent pregnancies she has had preventive treatment for preeclampsia, had preeclampsia at term, with an induction and a Cesarean section, respectively.
Elisa	English	Hospital 1	30	Field work	Georgia	Low risk of preeclampsia, diagnosis of postpartum preeclampsia. Spontaneous onset of labor.
Helena	Spanish	Hospital 1	40	Field work	Spain	Low risk of preeclampsia, diagnosis of preeclampsia at 36 weeks. Induction was already planned as it was a twin pregnancy. Ended in Cesarean section.
Antonia	Spanish	Hospital 1	36	Social networks	Argentina	First delivery was spontaneous with preeclampsia diagnosed postpartum. Current pregnancy with high risk of preeclampsia, doing preventive treatment.
Margarita	Spanish	Hospital 1 and Hospital 4	25	Social networks	Spain	High risk of preeclampsia in hospital 1, changed hospital. In hospital 4, low risk of preeclampsia, finally did not develop the disease, spontaneous delivery.
Juliana	Spanish	Hospital 1	36	Field work	Spain	Low risk of preeclampsia, diagnosis at 38 weeks, failed induction of labor, Cesarean section.
Victoria	Spanish	Hospital 1	42	Field work	Spain	High risk of preeclampsia in second pregnancy, diagnosis in week 35,

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Pseudonym	Interview language	Center where the follow-up was performed	Age	Recruitment form	Country of origin	History
						induction of labor in week 37.
Luciana	Spanish	Hospital 5	43	Social networks	Spain	First pregnancy in 2013, preeclampsia detected at 28 weeks. Caesarean section at 34 weeks. Second pregnancy in 2017, aspirin, hospital admission after one month, Cesarean section at week 32. Both children admitted for one month into the Neonatal Intensive Care Unit (ICU).
Cristina	Spanish	Hospital 5	30	Social networks	Spain	Twin pregnancy, low risk of preeclampsia, diagnosis at 36 weeks, Cesarean section.
Rosa	Spanish	Hospital 1 and Hospital 6	37	Social networks	Spain	High risk of preeclampsia. Did not develop preeclampsia, labor induced at 40 weeks for large baby.
Lola	Spanish	Hospital 7	32	Social networks	Spain	Three previous pregnancies without any risk factors, fourth pregnancy with low risk of preeclampsia and symptoms starting at 36 weeks. Untreated. Fetal death at 40 weeks. Currently 18 weeks pregnant, screened with high risk of preeclampsia.
Carla	Portuguese	Hospital 8 and 9	35	Social networks	Portugal	Low risk of preeclampsia, did not know about screening. Symptoms of preeclampsia at 36 weeks that were not diagnosed at the public clinic, but were diagnosed at the private clinic. Induction of labor scheduled for 37th week at the private clinic, but spontaneous labor occurred earlier. Fainting during labor, severe preeclampsia. One week in the ICU, in the end both mother and baby recovered well.

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We provided participants with an information sheet about the study prior to the interviews, and some participants contacted us by email before the interview to clarify their doubts. We also provided an informed consent form to be signed before the interview, whereby they authorized their participation and the recording of the interview.

The interviews were transcribed and, together with the field diaries, they were coded using the software Dedoose (Salmona et al., 2019). Based on the literature review and the objectives of the project, we defined 18 codes to explore relevant issues and interactions. Codes were created based on four categories: patient perception (trust/distrust in professionals, emotional impact during the process); decision-making (communication, information received); institutional operation (medical authority, working conditions); procedures (induction of labor, Cesarean section, ultrasound).

The deductive coding of the empirical material (Fife and Gossner, 2024) was collaboratively discussed and defined during weekly methodological seminars held over a period of six months. These seminars were attended by seven other researchers who participated in the project and were directed to unify analytical categories. The coding identified nine emerging themes: (1) The information received; (2) Emotional involvement; (3) Medical authority; (4) Use of protocols; (5) Communication of bad news; (6) Follow-up and dialogue around a risky pregnancy; (7) Communication tools; (8) Relationship with the health care professionals; and (9) Intersectionality.

Based on illustrative fragments, we have selected topics 1, 4, 6, and 7 to deepen the discussion of the protocol of risk classification in pregnancy and the different levels of communication and autonomy built in the relationship between patients and professionals.

The University's ethical committee has approved this study (ID 6020), and the University has committed to saving the documents and transcripts in the OneDrive platform, which is secured by the University's ID and password.

3. Results

3.1. Providing information on the diagnosis and treatment of preeclampsia

"It was a surprise; after an analysis, they called us, and then they explained this [the preeclampsia diagnosis] to us. The first thing she said to me was: 'Don't check the Internet, okay? I was totally unaware. They didn't explain everything very well either. Which on the one hand is appreciated because of course, if not, I think there is a lot of information, you get more nervous [because you think it is more serious] than it really is" (Paula, 37, Romania).

At the time of the interview, Paula had been living in Barcelona for 14 years and had two children: one aged one year and nine months and the other six weeks. In her account, Paula refers to her first pregnancy, where she was screened as high-risk for preeclampsia and developed it in the 38th week. In her second pregnancy, she was also screened as high-risk. She did not develop the disease and had an induced labor at the 40th week in order to prevent its recurrence. Paula describes the lack of information regarding diagnosis and prognosis during consultations. The medical recommendation to refrain from accessing the Internet may be an attempt to prevent patients from perusing alarming information, such as the potential risk of maternal and fetal mortality that the disease poses if left uncontrolled.

Geissler et al. (2023) assessed commonly available information on preeclampsia in the United States and found that medical recommendations on treatment were conflicting, for example, on aspirin prevention strategies (p. 84). The article suggests improving the content and accessibility of available preeclampsia information, considering the language and reading levels of the target population (p. 85).

Also, the amount of time spent in a consultation was observed to be a communication barrier. Beatriz had been living in Barcelona for a year; her husband was employed in the city, and she was at home caring for their young two children. In the following excerpt, Beatriz underlines the difficulty of asking questions during short medical consultations. She also mentioned that she was not sure about what to ask, as she did not have sufficient information about her condition as a high-risk preeclampsia patient and the reason underlying the medical decision to induce labor. Beatriz described her labor-induced and Cesarean delivery as traumatic:

> "They said I was about to go on preeclampsia and that I couldn't have a normal labor. We still don't have a full idea about preeclampsia. Without disrespect, the doctor speaks no English; the doctor couldn't answer our questions. Everyone was very stressed about the situation. We didn't ask a lot of questions because we didn't know what to ask at the time. There was no time for that. I don't know how dangerous this is, how to handle it, what to do, what not to do. It's just like, 'Take these drugs; it's important.' For the induction, we had to sign some documents in the hospital, but we just signed" (Beatriz, 34, Cameroon).

At the time of the interview, her first child was one month old, and Beatriz was suffering from postpartum preeclampsia. In the interview, she mentioned being concerned and experiencing severe headaches. She also asked the first author to explain to her what preeclampsia was and why she continued to have it after delivery, as she thought that it ended with delivery. Beatriz's question suggests a lack of information and cultural competence during her pregnancy, which included a high-risk classification, a later diagnosis of preeclampsia, the induction of labor, and a Cesarean section. She states that language barriers affected her chances of understanding what was happening and, as a result, influenced her to feel excluded from the decision-making process of induction of labor.

> "It was a very tough and unpleasant experience. Doctors always made me keep quiet, and I wanted to ask things, and they wouldn't even let me finish my question […]. So going through all this, in this state of mind, was hard, and I had to accept everything" (Fernanda, 39 years old, Catalonia).

The literature points to an important correlation between dialogue, information quality, and agency in reproductive contexts (Yuill et al., 2020; Dy and Purnell, 2012). In Fernanda's case, her discomfort in 'going along accepting' interventions relates to her inability to establish a dialogue with a professional and, which prevented her from understanding the problem she was facing and participating in the decision-making process of induction of labor.

In the hospital study, consultations lasted 15 min due to agendas. During first-trimester risk screenings, we observed brief discussions and explanations when a risk was identified, even though they were accompanied by recommendations for preventive treatment and inclusion in a high-risk care pathway for pregnancy and childbirth.

Summarizing, participants experienced a lack of information from screening to postpartum, reporting difficulties in understanding their risk or diagnosis. By not understanding what is happening to them and the need for eventual interventions, participants may feel excluded from the decision-making process of inducing labor when preeclampsia is diagnosed. Issues such as short consultation times and communication barriers were also observed to impact the possibilities of dialogue between medical professionals and patients, which are related to the disparity between the demand for medical services and the availability of human and material resources in Catalonia's public hospitals.

3.2. Patients' accounts, protocols, and risk: the case of patients at low risk of developing preeclampsia

Fabiana recounted that during her first pregnancy, she began experiencing high blood pressure as early as the 12th week. She sought emergency medical care multiple times after learning from online sources that this condition could indicate preeclampsia. Fabiana described how, upon arrival at the emergency room, her blood pressure readings were elevated, yet they normalized within half an hour, leading to her discharge. Medical professionals attributed the initial high readings to anxiety-related fluctuations. Despite these assurances, Fabiana continued monitoring her blood pressure at home following these visits. It was not until the 32 nd week of her pregnancy that she was diagnosed with preeclampsia, coinciding with a placental abruption. Prior to this diagnosis, she had neither undergone screening nor been identified as at risk for preeclampsia and thus could not access preventive treatment. Ultimately, she required an emergency Cesarean section, and tragically, her infant passed away five days later. In her subsequent two pregnancies, Fabiana received preventive treatment for preeclampsia and developed the condition at term, which resulted in an induction and, subsequently, a Cesarean section. In the interview, she expressed feeling disregarded when she conveyed her concerns to the doctor about a potential preeclampsia diagnosis, noting her consistently elevated blood pressure readings of 14/9 and the baby's underweight condition, which caused significant concern for both her and her partner.

> "Since they told me not to worry, that my son was only going to be small, well, the truth is that I was completely confident. I thought I could trust them until I went to the emergency room, and they asked me how it was possible that nothing had been done yet. At the end of the pregnancy, when the increase in blood pressure was more continuous, then I started to be wary of saying, 'Oh, okay, I haven't reached 15, but what's the difference between 15 and 14.8?' Well, maybe if I tighten the blood pressure monitor more, I will reach it. I was asking: I have read on the Internet that it could be preeclampsia. Besides, the child is not growing. But they always told me that the values were negative and that the urine test was negative, so it couldn't be preeclampsia" (Fabiana, 33 years old, Spain).

The excerpt highlights Fabiana's experience with hospital protocols and doctor-patient communication. She explained that, at the time, preeclampsia was only considered when blood pressure reached a specific 14/9 threshold defined by hospital guidelines. This strict adherence to protocol resulted in the medical team withholding treatment despite her expressed concerns. Fabiana claims that the devastating outcome of her pregnancy was a direct result of the medical team dismissing her reported symptoms and suspicion of preeclampsia. She had requested treatment, but the hospital decided against it. Fabiana's account illustrates contextual challenges affecting SDM. It points to a lack of attentive and proactive care, even in the presence of significant warning signs such as persistently high blood pressure and concerns about fetal growth. Her experience suggests that trust in the healthcare system and reliance on its reassurances can be misleading when patient advocacy is disregarded.

In her subsequent pregnancy, Fabiana had a high-risk classification due to such antecedents. She mentioned that the high-risk follow-up of preeclampsia generated a sense of calmness and care that she had not experienced during her previous pregnancy. In Fabiana's case, we can see how the experience of being screened and found to be high risk depends on the personal context and the reproductive trajectory of each individual and family. Fabiana's efforts to dialogue with professionals resulted in a feeling of not being listened to when expressing concerns, not being able to discuss in more detail her suspicion related to the preeclampsia, and not having a say in decision-making. In this instance, Fabiana perceived that the physicians' primary rationale for administering medical treatment was the existing protocol instead of considering her experiences and perceptions and ensuring Fabiana's participation in decision-making. This case underlines the importance of thorough and patient-centered assessments in managing serious conditions like preeclampsia to support effective SDM.

Roberta recounted a similar experience during an interview conducted at her home following her discharge from the hospital. Having suffered from severe preeclampsia in a prior pregnancy, she anticipated and feared the recurrence of the condition in her subsequent pregnancy. Despite her concerns, the hospital protocol where she was receiving care for her subsequent pregnancy did not deem preventive treatment necessary. Determined to take a proactive approach, Roberta researched the protocols of various hospitals and identified institutions that would administer preventive treatment. However, when she raised her concerns and findings with her physician, she was unable to secure preventive care. Roberta observed that her physician did not consider the information she had gathered relevant.

> "I insisted that the gynecologist give me aspirin to prevent preeclampsia. I told him, 'But it doesn't matter if it is low-risk; I had preeclampsia in the first pregnancy,' and he told me, 'But I have entered that information in the calculator, and it still shows low-risk. I'm not going to give you anything.' And I went on to look for hospitals where it is given by protocol. I know a hospital in Catalonia and one in another region in which it is given by protocol. But he told me that I was low-risk and that he would not give it to me, and, in the end, I was diagnosed with preeclampsia during labor. Well, in the end, it's whatever the doctors say, right?" (Roberta, 34, Catalonia).

Roberta's experience underscores significant issues for a successful SDM, particularly the impact of physician authority and strict protocol adherence. Despite her proactive advocacy and history of severe preeclampsia, her concerns were dismissed due to reliance on risk calculators labeling her as "low-risk," highlighting the limitations of rigid protocols that overlook individual histories and the need for meaningful patient involvement in care decisions. Roberta's exclusion from decision-making is evident in her remark, "Well, in the end, it's whatever the doctors say, right?" Her eventual preeclampsia diagnosis during labor exemplifies the consequences of sidelining patient input, emphasizing the importance of balancing clinical tools with patient experiences for comprehensive, preventive care.

In summary, risk classification significantly impacts perinatal communication and prognosis. Being labeled as low-risk may preclude the necessary medical care for preeclampsia. Some participants noted that, despite improvements, institutional health protocols often overshadow patient concerns, leading to inattentiveness to their reported symptoms and limited participation in decision-making.

3.3. Technical parameters and dialogue between professionals and high-risk patients

Similar to institutional protocols, in the cases studied, we noticed that measurements and technical parameters contributed to making the dialogue between professional and patient even more difficult. Among the most frequent cases are the parameters of the babies' weight estimated by the ultrasound scan. The indication for induction of labor because "the baby is big," when the weight was above 3.5 kg, was constantly observed in high-risk follow-up consultations at the hospital, based on the premise that it was challenging to deliver a 4 kg baby vaginally. Such concern regarding babies weighing more than 3.5 kg was not observed in low-risk primary care consultations performed by midwives. This practice could suggest that the high-risk pregnancy circuit implies greater surveillance, leading to more medicalized pregnancies and deliveries.

In the observations made, professionals presented the induction of labor as a preferred method with statements such as, "You won't be able to deliver it" [vaginally if you wait more]. Their narratives suggested a belief that vaginal delivery was a priority for all patients but difficult to achieve. Therefore, it was better to induce the pregnancy when the baby was smaller to have higher chances for vaginal delivery. These professional recommendations were not necessarily preceded by a conversation about patients' preferences and priorities.

We could see an illustrative example of this during our observations of a pregnancy check consultation at the hospital with Luisa, a woman from Pakistan who was 39 weeks pregnant and was screened at high risk of preeclampsia. Shortly after she and her husband came in and sat, the doctor said, "Well, the baby was very big, remember? We will measure it now to see the weight, and then we will see if we can end the pregnancy, if that's okay for you." During the ultrasound, the doctor told the parents that because the baby was already 4 kg, they should schedule a day for the induction so that Luisa had "the possibility" of a vaginal delivery. According to the doctor, the baby could reach 4.5 kg in two more weeks, making vaginal delivery even more difficult.

The doctor stated that she was not sure that Luisa would achieve a vaginal delivery but insisted that she should try, and that stopping the baby to continue growing would make labor easier. Luisa and her husband reported that it was not quite like that for them because their first child was born in the same hospital and was 4 kg. At that time, they explained, Luisa was also advised to have a labor induction for the same reason, and the delivery ended up being a Cesarean section. The doctor replied that the induction did not work because the baby was already too big. Then, the doctor scheduled a day for the induction. After they left the room, a trainee remembered that the couple had not signed the informed consent for the induction procedure, for which the doctor called them back. Luisa quickly signed on a digital pad and left once more without receiving a copy of the digital document she had signed.

In this scene, we observe different layers impacting the decision-making process: information quality, poor dialogue about the patient's experiences, and the reduction of informed consent to a formality that the medical team may forget. Finally, as previously mentioned, the scene also shows how the routine measurement of babies' weight during an ultrasound can play a central role in imposing a decision to induce labor during a follow-up consultation for a high-risk pregnancy with preeclampsia. In this case, neither the patient nor her baby had any symptoms of preeclampsia or any form of life-threatening condition that would require intervention. We observe that the medicalization of pregnancy does not consider the needs and perspectives of the patient (Armstrong, 1995; Hausman, 2005).

Stevens and Miller (2012) address the relationship between doctors' communication styles when informing and recommending induction of labor and women's decision-making in a comparative study with women with prolonged pregnancy (41–42 weeks) in Australia. The authors state that when health professionals express a preference for induction of labor over other options, women elect induction more often, thus demonstrating how the quality of information and the way it is presented are critical aspects in the decision-making process of pregnant women.

3.4. Between bureaucratic instruments and communication tools

Language was another observed factor impacting communication in high-risk consultations. Given the linguistic diversity among patients, the absence of translation services could reduce the agency for those not speaking Catalan or Spanish. The Strategic Plan for Immigration in Healthcare (Law 40/2006, 14th of March) was the first in a series of regulations aimed at adapting Spain's healthcare system to its multicultural and linguistic diversity. Key areas included the need for specialized training for healthcare professionals and the provision of translators and cultural mediators to support public health centers. Since 2001, the Emergency Medical Services of Catalonia enabled a telephone interpretation service for professionals (Burdeus Domingo, 2015). However, the use of institutional translation resources was never observed during the fieldwork. Instead, patients who did not speak Catalan or Spanish attended medical consultations and childbirths accompanied by a relative or a friend who acted as a translator.

When asked about the telephonic translation service, some participants reported not being aware of its existence or how it worked. Others reported that the translation resource was not always available, or had to be booked in advance. No posters with information related to this service were observed. It was observed how the healthcare professionals themselves sought to solve communication difficulties that happened when they didn't share a common language with the patients.

We observed instances where the informed consent for a risk screening was signed in a rush, with a brief description by the professional and a request for a signature on a digital pad. Isabel had been classified at high risk of developing preeclampsia. When she was almost 40 weeks pregnant, at a high-risk follow-up consultation, she was advised to induce labor because of gestational age. When offered a digital pad to sign, Isabel asked for more details. The doctor seemed annoyed by the request, which Isabel noted, and Isabel tried to calm the doctor down by saying that she did not want to upset her and was asking because she had had problems previously at that same hospital. The doctor did not ask the patient for further details and, still seeming notably tense, responded to her that the medical team was not going to do anything to harm her or her baby. Finally, Isabel signed on the digital pad and left the room.

As this observation shows, the doctor's answer was not informative about the content of the informed consent nor facilitated the patient's autonomy in assessing the risks involved in labor induction. Instead, the answer shifts the demand for more information to a personal question of trust in the professional and the institution.

The struggles related to discussing the procedures that might follow a high-risk classification of preeclampsia with professionals were also observed with the use of information flyers for inducing labor, usually given to the patients after the informed consent had been signed. Helena, a Catalan woman who had a twin pregnancy through IVF, was classified as being at a high risk of developing preeclampsia at her first trimester screening. In the interviews, she talked about the challenges she faced when trying to communicate with her doctor at the end of her pregnancy. She had been experiencing symptoms such as tingling and swelling since week 34, but in her consultations, she could not clarify whether this was related to preeclampsia or not. At 38 weeks of pregnancy, she was finally diagnosed with preeclampsia and received the indication for induction of labor. Helena talked about the distribution of induced labor flyers in consultations, emphasizing the lack of time to explain their content, understand it, and ask questions. "They would say to you, 'In the induction, we will do the balloon thing [referring to the Cook Cervical Ripening Balloon, a method of inducing labor.] Here, take the information. If you want to know more, then read it."

As explained by Helena, rather than having the flyer act as a tool for patient-professional dialogue and providing information before a decision was made, it was handed out after the decision was taken. Moore et al. (2014) investigated the decision-making process for labor induction in the United States and the factors that lead patients to opt for a procedure. The authors argue that patients who do not have enough time or information to understand the risks of doing or not doing the induction do not have the opportunity to make an informed decision.

Regarding the short time of consultations due to the high demand for assistance, we observed that handing out the flyers allowed professionals to skip a more extensive and time-consuming explanation. The possibility to save time should not be regarded as minor in a context in which the time allocated per consultation was 15 min, which, on numerous observed occasions, implied professionals finishing that day's appointments one or 2 h later than planned, with short to no breaks. Importantly, as many professionals complained, these extra work hours were unpaid.

4. Concluding discussion

This article examines the experiences of pregnant women regarding a new preeclampsia screening included in Catalonia's standard prenatal testing since 2018. Our findings illustrate how prenatal screenings align with the logic of risk prevention increasingly prevalent in perinatal medicine (Waggoner, 2017), and influence access to preventive treatment during pregnancy (Smith-Morris, 2005). As highlighted by Armstrong (1995) and Bessett (2010), we point out the central role of risk factors in pregnancy management, showing how the process centers on risk assessment and leads to subsequent medicalization and intervention.

The findings suggest that patients are not always aware of the meaning and implications of their pregnancy risk classification, a classification that makes them more susceptible to preventive interventions. We observed that decision-making is perceived by pregnant individuals as mainly guided by the protocols in place, which are perceived to predominate over dialogue and the requests or experiences of patients, resulting in a sense of being excluded from the process.

As a result, both low- and high-risk patients who have a preeclampsia diagnosis reported difficulties in obtaining information about the disease and treatment. As it has been observed in other geographical contexts (e.g., Vega-Morales et al., 2016; Værland et al., 2016; Hansson et al., 2022), lack of dialogue and information play a central role in enabling women to feel included in their reproductive process and to deal with the challenges faced in the context of the screening and the diagnosis of preeclampsia. In that sense, women screened as high risk and who do the preventive treatment during prenatal have difficulties in receiving information about the treatment they are having and the disease from which they are being preventively treated. Pilnick and Zayts (2016) highlight that to have SDM, professionals should provide personalized information regarding treatment options and their potential harms and benefits. Similarly, for patients to feel adequately informed and consequently be able to participate in the decision-making process, a high level of understanding, quality information and effective communication are required.

Our findings contribute to the literature on SDM in high-risk settings, as they show elements in the studied context that interfere with patients obtaining the necessary information and dialogue to participate in the process. Among those, we show the lack of time in the consultations, the lack of translators, the protocols and technical parameters in place that prevail over sharing decisions with patients, and the use of informed consent, given that they are signed without being read or discussed.

The hospital scheduled 15 min per consultation, including an ultrasound examination, information exchange, and dialogue with the patients, and this could be attributed to the high demand for assistance from public health centers in Catalonia. Catalonia has experienced a 15.33% reduction in its public health budget since 2010, including in obstetrics (Granero-Lázaro et al., 2017).

Without the time to discuss them with patients, healthcare protocols might be enforced without sufficient consideration of the patient's will due to time constraints or the inability to engage in meaningful dialogue (Wilce, 2009). Consequently, a one-sided care delivery approach characterized by unilateral medical recommendations may become prevalent.

Our findings indicate that patients may feel they are passively complying with healthcare protocols when they do not understand the implications of the treatments to which they are being asked to agree. This lack of comprehension diminishes their decision-making capabilities during pregnancy and childbirth (Stevens andMiller, 2012).

Our results contribute to the idiomatic context of pregnant women when considering the opportunities for SDM. In the context observed, no translation resources have been seen to be employed. Thus, patients who are not fluent in the official languages face barriers to accessing comprehensible information about their situation and, therefore, making decisions alongside professionals.

This study illustrates the challenges associated with preeclampsia risk screening, which has become a standard component of prenatal care in Catalonia in recent years. These challenges primarily revolve around the inadequate transmission of information, which hinders patients' ability to make informed decisions regarding their care. As we argue, these communication barriers are closely linked to the constraints imposed by healthcare professionals' working conditions and the reduction in consultation times.

The findings of this study emphasize the need for a holistic approach, with room for listening and dialogue, to address the elements identified as affecting SDM. This approach should focus on enhancing information dissemination methods within healthcare centers and transforming the communication paradigm between patients and professionals. Currently, communication in this context is predominantly characterized by a unilateral style, which hinders meaningful dialogue and SDM.

The reviewed cases reveal that a patient's agency is often compromised when medical decisions rely solely on standard criteria without incorporating patient input and shared discussions. Risk classification without adequate clarifying information or opportunities for discussion may result in patients feeling exclusion from the decision-making process (Dy and Purnell, 2022). Furthermore, the workload pressure within public healthcare settings, such as those in Catalonia, further impacts the quality of patient-professional dialogue.

These experiences underscore the need for personalized, patient-centered care that supports ongoing communication and validates patients' perceptions to facilitate meaningful SDM. The research highlights the critical need to balance evidence-based protocols with a more inclusive approach that values patient experiences and input. Communication with patients and families, high-quality information and shared evaluations are vital for fostering trust and empowering patients, ensuring they play an active role in decisions affecting their care. Healthcare systems should aim for more flexible and communicative practices that consider clinical data and patient perspectives to improve outcomes and patient satisfaction, allowing SDM to be a true partnership in their reproductive journey.

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Mariana Campos Lichtsztejn: Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Anna Molas:** Writing – review & editing, Validation, Supervision, Project administration, Methodology, Conceptualization. **Joan Pujol-Tarrés:** Writing – review & editing, Visualization, Validation, Supervision, Methodology, Conceptualization.

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The data that has been used is confidential.

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