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ORIGINAL ARTICLE

'A caesarean section is like you've never delivered a baby': A mixed methods study of the experience of childbirth among French women

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Abstract The experience of childbirth has been technologized worldwide, leading to major social changes. In France, childbirth occurs almost exclusively in hospitals. Few studies have been published on the opinions of French women regarding obstetric technology and, in particular, caesarean section. In 2017–2018, we used a mixed methods approach to determine French women's preferences regarding the mode of delivery, and captured their experiences and satisfaction in relation to childbirth in two maternity settings. Of 284 pregnant women, 277 (97.5%) expressed a preference for vaginal birth, while seven (2.5%) women expressed a preference for caesarean section. Vaginal birth was also preferred among 26 women who underwent an in-depth interview. Vaginal birth was perceived as more natural, less risky and less painful, and to favour mother–child bonding. This vision was shared by caregivers. The women who expressed a preference for vaginal birth tended to remain sexually active late in their pregnancy, to find sexual intercourse pleasurable, and to believe that vaginal birth would not enlarge their vagina. A large majority (94.5%) of women who gave birth vaginally were satisfied with their childbirth experience, compared with 24.3% of those who underwent caesarean sec-

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tion. The caring attitude of the caregivers contributed to increasing this satisfaction. The notion of women's 'empowerment' emerged spontaneously in women's discourse in this research: women who gave birth vaginally felt satisfied and empowered. The vision shared by caregivers and women that vaginal birth is a natural process contributes to the stability of caesarean section rates in France.

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Introduction

The experience of childbirth has been institutionalized and technologized worldwide, leading to major social changes (Akrich, 1999a). In Western countries, a turning point occurred in the 1950s and 1960s with the movement to modernize hospitals, the development of new devices to monitor childbirth, and increased use of both analgesics and caesarean section (Gardey, 2015). Observing the increase in technologization during childbirth, Davis-Floyd developed the concept of a 'technocratic paradigm of childbirth' (Davis-Floyd, 2001), showing that childbirth is now part of a new biomedicalization of the body, governed by the notions of risk and surveillance, and by technosciences (Clarke et al., 2000).

Since the 2000s, maternal requests for caesarean section have been studied increasingly, and are presented as a possible explanation for rising caesarean section rates worldwide (Diniz and Chacham, 2004; Gamble and Creedy, 2000; Hopkins, 2000). Women's choice and their ability to act in response to new technologies during labour and delivery have been discussed in the scientific literature in tandem with the deployment of these technologies (Akrich, 1999b; Behague et al., 2002; Wagner, 2000). Pregnancy and childbirth have gradually come to be presented by biomedical teams as dangerous and risky events (Topçu and Brown, 2019). This social construction leads some women to choose to give birth in hospitals and to adhere to technology by default (Coxon et al., 2014). A meta-analysis by Mazzoni et al. found that 15.6% of women from several high- and middle-income countries would prefer to deliver by caesarean section (95% confidence interval 12.5–18.9%) (Mazzoni et al., 2011). A systematic review of the literature (Schantz et al., 2019) recently documented that the proportion of women declaring that they would prefer to give birth by caesarean section varies greatly, ranging from 1.0% in a study in the UK (Kingdon et al., 2009) to 62.2% in a study in Iran (Matinnia et al., 2015).

In France, childbirth is highly technologized, but the caesarean section rate has not changed much compared with the increases observed elsewhere. In France, there is high use of epidural analgesia (provided during 82.2% of all deliveries in 2016) and hormones to accelerate labour (oxytocin given to 44.3% of women in spontaneous labour in 2016) (INSERM, DREES, 2017). While the episiotomy rate has decreased (from 27% to 20% between 2010 and 2016), the most recent national estimates, published in 2016, show that the caesarean section rate has remained stable in France for the past 15 years (20.4% in 2016) (Blondel et al., 2017a). In France, women had an average of 10 prenatal visits and 5.5 ultrasounds during pregnancy in 2016. Of all deliveries, 23.4% took place on private maternity wards and 60% were performed by a midwife (Blondel et al., 2017b). Midwifery in France is a medical profession rather than a paramedical profession; midwives in France can perform many medical acts, which clearly differentiates them from midwives in many other countries. However, caesarean sections are performed exclusively by obstetricians. In France, almost all deliveries take place in health institutions. 'Scheduled' home delivery is not officially supported or facilitated. Midwives are not insured to practice home delivery, and there is no legal framework for this practice. Therefore, no statistics are available. The few home deliveries recorded are qualified as 'unexpected deliveries', and midwives performing these home deliveries are liable to be expelled from the Council of the Order of Midwives (Sestito, 2017). Thus, possibilities for women to give birth outside medical institutions are very limited in France. In addition, childbirth in France is governed by high technologization. This technological management of childbirth falls under the culture of 'obstetric risk' described above, which is strong in France (Carricaburu, 2005, 2007).

In rare cases, women in France escape the massive movement of medicalization of childbirth and claim repossession of the event of birth (Pruvost, 2016). However, little is known about French women's opinions on obstetric technology and, in particular, caesarean section. The aim of this study was to measure and provide a better understanding of the preferences of French women regarding their future mode of delivery, and to capture the experience and satisfaction of women in relation to caesarean section. The questions that guided this research were as follows: Do women prefer to deliver by caesarean section or vaginal birth? What drives their preference? What are the representations associated with these two types of childbirth? Do power relations between caregivers and women, and power relations in relation to gender, corporality and sexuality influence these representations?

Materials and methods

The CESARIA research programme was launched in 2017. This programme aims to understand the evolution of caesarean section practice in different contexts based on specific field studies in Europe, Asia and Africa (France, Cambodia, Vietnam, Benin and Mali). It is a multidisciplinary mixed methods study that combines qualitative and quantitative approaches from sociology, demography and epidemiology. The study was registered in France at the Comité National de l'Information et des Libertés in June 2017 (No. 2079345) and approved by the Comité de Protec-

tion des Personnes Sud Méditerranée IV in August 2017 (No. ID-RCB: 2017-A01199-44).

From July 2017 to December 2018, 331 pregnant women attending antenatal care at two maternity hospitals located in and around Paris, France (Maternity 1 and Maternity 2, respectively) were recruited prospectively. These public hospitals were chosen because they allowed two contrasting populations to be studied: one within the city of Paris in a private hospital, where the population has a relatively high level of wealth; and one in the suburbs of Paris in a large public hospital, where the population has a lower level of wealth and a more international background. These hospitals were student internship sites for a midwifery school collaborating with the project, and had established scientific links with the research team at the level of the heads of departments. Pregnant women were interviewed by four trained student midwives under the supervision of the first author (CS) using closed questionnaires with some open-ended questions. This methodology has been used previously in Cambodia (Schantz et al., 2016), and included some questions from a questionnaire used in Brazil (Hopkins, 2000).

In parallel, a student midwife (ACP) conducted 26 in-depth qualitative interviews under the supervision of CS. These women were not included in the 'quantitative' cohort, but were recruited and interviewed at Maternity 1 during their pregnancy ($n = 7$) or after delivery ($n = 19$). Data were collected about their representation or experience of caesarean section. All 19 women interviewed after delivery had given birth by caesarean section. The aim of the qualitative interviews was to gain a deeper understanding of women's perceptions of childbirth, and to extract certain elements that could not be anticipated in the closed questionnaires.

Quantitative data analysis

Information collected through the questionnaires was recorded on an anonymized Excel spreadsheet (Microsoft Corp., Redmond, WA, USA), with a unique identifier for each woman. Characteristics of the women are presented as medians and interquartile ranges (IQRs) for continuous data, and as frequencies and percentages for categorical data. As this study focused on women's choices in terms of mode of delivery, 10 women who had no preference for or against caesarean section, 32 women who had undergone a caesarean section previously [as 55.1% of women with a previous caesarean section have repeated caesarean sections (Blondel et al., 2017b)] and five women who had a planned elective caesarean section for medical reasons were excluded from this study.

Sociodemographic, obstetric and gender-related factors associated with a preference for caesarean section were explored. First, a univariate analysis was conducted using Chi-squared test, Fisher's exact test and Student's t-test as appropriate, examining the strength of the association between socio-economic, obstetric and gender-related factors and a preference for caesarean section. All factors with an association of $P < 0.10$ were included in a manual multivariate analysis, which took into account a potential cluster effect based on the recruitment site. Working backwards, factors that were not associated were removed gradually, keeping all factors with $P < 0.05$ in the model. The strength of the associations is described using odds ratios (ORs) and 95% confidence intervals (CIs). Stata 13 (Stata Corp., College Station, TX, USA) was used for all analyses, and statistical significance was defined at a 5% threshold ($P < 0.05$).

Qualitative data analysis

During in-depth interviews, women were asked questions related to childbirth, their bodies, gender relations and sexuality. More precisely, the following topics were discussed: the childbirth decision-making process, including interactions with providers; companionship; gender and family influences on different modes of giving birth and their implications; perceptions regarding self-esteem, knowledge and empowerment in decision-making during pregnancy and childbirth; perceptions and experiences of support during childbirth, including labour companionship; and satisfaction with the birth experience, including interactions with providers and the facility environment. Interviews were conducted until data saturation was achieved for the main topics, with a focus on the key points of the interviews but not limited to the predetermined topics to enable generation of unexpected information and themes. The interviews lasted an average of 38 min. The qualitative data were analysed through a thematic analysis using an inductive approach to allow themes to emerge from the data.

Results

Cohort characteristics

Of the 284 women included in this study, 191 (67.3%) were born in France and 250 (88.0%) spoke French during childhood (Table 1). The majority of women (214, 75.4%) had completed higher education, 265 (93.3%) had a partner and 107 (37.7%) already had a child. All were interviewed at 37 weeks of gestation (IQR 36—37 weeks).

Women recruited at Maternity 1 were older than those recruited at Maternity 2 [median age 32 (IQR 29—36) years versus 31 (IQR 27—34) years, respectively; $P = 0.006$] but had the same number of children. Women from Maternity 1 and Maternity 2 also differed in terms of occupation, with more public servants included in the group from Maternity 2 (33.8% versus 24.0%; $P = 0.001$).

Of the 284 women included in the cohort, 277 (97.5%) expressed a preference for vaginal birth, while seven (2.5%) expressed a preference for caesarean section. In the 26 in-depth interviews, a preference for vaginal birth was also widely expressed. The reasons for this preference will be discussed through both the quantitative and qualitative approaches.

Preference for vaginal birth

When explaining why they would prefer to give birth vaginally, the women reported reasons that can be grouped into seven themes (Table 2). The same reasons were mentioned in the interviews.

Table 1 CESARIA-France study population by recruitment site ($n = 284$), CESARIA study, France, 2017—2018.

	All		Recruitment site				Comparison
			Maternity 1		Maternity 2		
	$n = 284$	% or IQR	$n = 154$	% or IQR	$n = 130$	% or IQR	*P*-value
Age (years; median, IQR)	32	28 to 35	32	29 to 36	31	27 to 34	0.006
Birth country							NS
France	191	67.3	99	64.3	92	70.8	
European country	80	28.2	48	31.2	32	24.6	
Non-European country	13	4.6	7	4.5	6	4.6	
Language							NS
Spoke French during childhood	250	88.0	133	86.4	117	90.0	
Does not speak French	30	10.6	18	11.7	12	9.2	
Missing data	4	1.4	3	1.9	1	0.8	
Education							NS
Higher education	214	75.4	122	79.2	92	70.8	
Secondary	64	22.5	28	18.2	36	27.7	
Primary or below	6	2.1	4	2.6	2	1.5	
Occupation							0.001
Public service employee	81	28.5	37	24.0	44	33.8	
Executive, liberal profession	75	26.4	45	29.2	30	23.1	
Unemployed, student	42	14.8	28	18.2	14	10.8	
Middle-level profession	26	9.2	22	14.3	4	3.1	
Service staff	20	7.0	7	4.5	13	10.0	
Artisan, shop owner	18	6.3	8	5.2	10	7.7	
Shop employee	18	6.3	6	3.9	12	9.2	
Worker	4	1.4	1	0.6	3	2.3	
Has a partner							NS
Yes	265	93.3	146	94.8	119	91.5	
No	18	6.3	8	5.2	10	7.7	
Undisclosed	1	0.4	0	0.0	1	0.8	
Has children	107	37.7	56	36.4	51	39.2	NS
No. of children (median, IQR)	0	0 to 1	0	0 to 1	0	0 to 1	NS
Gestational age (weeks)	37	36 to 37	37	36 to 38	37	36 to 37	NS

IQR, interquartile range.
The nomenclature of professions used is that of the Institut National de la Statistique et des Etudes Economiques (INSEE), France. It is used to codify the census and household surveys conducted by INSEE.

Most women in the cohort ($n = 219/277$, 79.1%) expressed a preference for vaginal birth because they perceived it to be a more natural way to give birth than caesarean section, and said that it allows for an easier and quicker recovery. During the in-depth interviews, a 38-year-old woman explained:

> I would rather have a vaginal delivery because I don't want a medical procedure and if nature makes it work that way, that's fine (PhD student, second child).

In the women's discourse, nature was often opposed to the technological act of the operation:

> Instead of a delivery, we have an operation (34 years old, caesarean delivery, human resources manager, first child).

This reference to nature appeared frequently in the women's interviews, to the point of interfering with some women's sense of legitimacy in becoming mothers, as expressed by a 30-year-old nurse, pregnant for the first time, who had a planned caesarean section for medical reasons:

Table 2 Reasons for preferring vaginal birth ($n = 277$), CESARIA study, France, 2017—2018.

Preference for vaginal birth, $n = 277$	*n*	%
It is considered more natural	219	79.1
It is considered less risky	49	17.7
It helps avoid pain	27	9.7
It helps preserve the mother's body	26	9.4
It helps mother—child bonding	15	5.4
It empowers women	12	4.3
It helps preserve fertility	4	1.4

I have to renounce a normal childbirth....... I tell myself that without medicine I might not have become a mother.... In animals, there is natural selection, so I wonder if I should be a mother now...

Vaginal birth also appeared 'less risky' to 49 (17.7%) women, who gave this as a reason to prefer giving birth vaginally. Several of these women expressed their fear of caesarean section because it is a surgical procedure, including a 30-year-old woman, a teacher who was pregnant with her first child:

Because i'm afraid of surgeries. I've never had one in my life....... I am afraid because of the operating room.

Avoiding pain due to caesarean section was another reason mentioned by 27 (9.7%) women who expressed a preference for vaginal birth. A 38-year-old woman, a human resources manager who had given birth to her second child by caesarean section, explained:

Caesarean section takes longer to recover. After my vaginal delivery, I was up the next day, but on Saturday, I thought I was going to die... I was so unwell that I didn't take care of my baby, I was too tired, it hurt...

Preservation of the woman's body (by avoiding surgery and surgical scars) was a reason given by 26 (9.4%) women for preferring vaginal birth:

It's more disabling to have a caesarean section because you have a scar (32 years old, teacher, pregnant with her second child, first born vaginally).

Another reason given by 15 (5.4%) women for preferring vaginal birth was that it was considered to be better for the baby. Some women mentioned biomedical reasons, such as protecting the child's immunity and facilitating breastfeeding, as well as affective reasons, such as bonding with the mother. Some interviewed mothers who had undergone a caesarean section previously stated that the separation from their child at the time of the operation had impacted their emotional bond with their child significantly. A 38-year-old woman, a dental assistant pregnant with her third child who had given birth to her first child vaginally and to her second child by caesarean section, said:

I have the impression that having the child a few hours [after my delivery] I don't have the same relationship with my second child because he was with his dad and he is closer to his dad, I can see the difference....... I didn't have the impression that he was mine, especially as he didn't look like us. I thought that there had been a mistake at the hospital, that they had made a mistake, even when I brought him home.

Twelve (4.3%) women expressed the opinion that vaginal birth may empower them, and as such they preferred to give birth vaginally. In the interviews, this sense of empowerment or disempowerment linked to the mode of delivery was explained as follows:

You really feel more like a mother when you give birth by the vaginal route (38 years old, dental assistant, pregnant with her second child).

A caesarean section is like you've never delivered a baby in your life (38 years old, human resources employee, gave birth to her second child).

Additionally, four women expressed their preference for vaginal birth in terms of maintaining their fertility ($n = 4$, 1.4%). The fear of a decline in fertility linked to giving birth by caesarean section was also found in the interviews:

[I am afraid of a caesarean section because] on the Internet some women say that they could not have another child after a caesarean section (22 years old, caregiver, first pregnancy).

The preference for vaginal birth was perceived as shared by caregivers. The women reported speeches from doctors, midwives and anaesthetists who expressed their preference for vaginal birth. One said:

It is not our role to decide the birthing route. The doctors want it to be as natural as possible, so I imagine that if they recommend doing a caesarean, it is for a medical reason, not to bother me (39 years old, human resources manager).

Another reported:

When I was taking childbirth classes, the midwife always told us 'Don't think about a caesarean section, it's the last option' (26 years old, engineer).

A 38-year-old primiparous teacher, who requested a caesarean section because her child was breech, explained:

The gynaecologist told me, 'Asking for a caesarean section without a medical reason is done in some countries but not in France' (...) The worst thing is my appointment with the anaesthetist, I told him that my daughter was in breech and that it would be a caesarean section, he told me, 'But you can't just decide to have a caesarean section like that!'.

Preference for caesarean section

Of the seven women in the cohort who expressed a preference for caesarean section, four had medical conditions that required follow-up by an obstetrician. Four women said they would prefer to avoid the pain of vaginal birth, two expressed fear about delivering vaginally, and one said that caesarean section was 'an easy way' to deliver. Other expected reasons (to preserve the beauty of the woman's body, to be able to choose the date of birth, and because the baby may be too large) were never cited. In the interviews, the preference for caesarean section was marginal ($n = 4$) and complex to formulate. When expressed, this preference was seen as a way to avoid the pain and fear of vaginal birth. Every woman who expressed a preference for caesarean section did so with embarrassment, and reported a fear of judgement and of being poorly understood by healthcare workers. The term 'joke' regularly came up when describing how they expressed their request for a caesarean section to the doctor or midwife. A 36-year-old woman, a pharmaceutical laboratory researcher who gave birth to her first child by caesarean section, recalled:

> We talked about that at the very beginning with the midwife here during an antenatal visit but it was only a joke, 'Can I have a caesarean section so as not to suffer', and she told us that 'No, we don't do caesarean sections for convenience', it was a bit in line with our thinking.

Another 38-year-old woman, a teacher who gave birth to her first child by caesarean section, described the following:

> During the visit with the midwife, I brought it up in a funny way, like a little girl who is afraid, 'If I could have a caesarean section, it would be the good life', to which she replied that in France it's different from some countries where you can ask [for a caesarean section delivery] without a medical reason. I said, well, but in a funny way, that I was very embarrassed.

Factors associated with a preference for vaginal birth or caesarean section

Univariate analysis

The univariate analysis did not show any association between women's preferred mode of delivery and sociodemographic factors (age, recruitment site, country of birth, education, occupation, marital status) (Table S1, see online supplementary material). However, women with a pregnancy requiring medical follow-up by an obstetrician were more willing to undergo a caesarean section (57.1% versus 16.6%; $P = 0.02$).

Three factors related to the women's sexual life were associated with the preferred mode of delivery. Women who expressed a preference for vaginal birth were more often sexually active at the time of the interview (at the end of their pregnancy) than those who expressed a preference for caesarean section (51.1% versus 0.0%, respectively; $P = 0.01$), and also reported usually enjoying sexual intercourse more often (95.7% versus 71.4%, respectively; $P = 0.04$). Women who expressed a preference for vaginal birth were less likely to believe that the vagina could be enlarged following vaginal birth than those who expressed a preference for caesarean section (58.1% versus 100.0%; $P = 0.04$).

Finally, the belief that caesarean section is safer than vaginal birth for the mother and the child was associated with a preference for caesarean section (42.9% versus 11.2%; $P = 0.04$).

Multivariate analysis

The multivariate analysis of factors associated with a preference for caesarean section (with a cluster effect for recruitment site) found that two factors remained independently associated with a preference for caesarean section: having a pregnancy that required follow-up by an obstetrician (OR 8.0, 95% CI 4.2—15.2; $P < 0.001$) and thinking that male sexual pleasure decreases after vaginal birth (OR 5.3, 95% CI 3.0—9.5; $P < 0.001$) (Table 3).

Illustrating these findings, one woman with a pathologic pregnancy confirmed that as she had already undergone extensive exposure to medical procedures, she did not fear caesarean section:

> The caesarean section for me is like nothing, as I have already had many surgeries, and punctions for the in vitro treatment (39 years old, lawyer).

Regarding sexuality, some women suggested during the in-depth interviews that, following vaginal birth, their vagina could be enlarged and their companion's sexual pleasure could decrease:

> Our wine seller told us that a caesarean section is really good because it preserves our youth at this level (38 years old, art history teacher, gave birth to her first child by caesarean section).

The link between sexuality and preferred mode of delivery was poorly expressed in the interviews, but was better in the responses to the questionnaires. For example, all seven women who expressed a preference for caesarean section believed that vaginal birth would enlarge their vagina.

Request for caesarean section

One hundred and eighty-one women (63.7%) interviewed within the first month post partum reported whether they had requested a caesarean section at any point. Of them, seven (3.9%) reported that they had requested a caesarean section: five during pregnancy, one during labour, and one during both pregnancy and labour. All seven women would have preferred to give birth vaginally. Reasons for asking for a caesarean section were fear (for the safety of the baby) ($n = 2$), general feeling of weakness ($n = 2$) and pain ($n = 2$). One woman did not disclose the reasons for her request. One of these cases was a 39-year-old woman, a cashier who gave birth vaginally to her first child, who recalled:

> At one point, I was exhausted, I would have liked to have a caesarean section right away to have my baby... I laughed about it, I said, 'Please perform a caesarean sec-

Table 3 Results of multivariate analysis for factors associated with a preference for caesarean section.

Preference for caesarean section	OR	95% CI	$P < z$
Abnormal pregnancy	8.0	4.2—15.2	<0.001
Belief that male sexual pleasure decreases after vaginal birth	5.3	3.0—9.5	<0.001
Constant	0.0	0.0	0.000

OR, odds ratio; CI, confidence interval.
Receiver operating characteristic curve = 0.80; Akaike criteria = 58.2.

tion now'. The midwife told me, 'Don't worry, it's going to be fine'.

Despite her request, this woman finally gave birth vaginally. Of the seven women in the cohort study who requested a caesarean section, only one ended up delivering in this way.

Issue and satisfaction

Of the 220 women with information available on their actual mode of delivery, 183 (83.2%) gave birth vaginally and 37 (16.8%) delivered by caesarean section without any association with their preferred mode of delivery (expressed at the end of their pregnancy). Of the 183 women who delivered vaginally, the majority ($n = 173$, 94.5%) declared that they were 'satisfied' with this mode of delivery, six (3.3%) were not satisfied and four did not know. Of the six women who had wanted a caesarean section but delivered vaginally, four said that they were satisfied with their experience, one said that she was not (without giving reasons for her dissatisfaction), and one had no opinion.

Of the 37 women who underwent caesarean section, nine (24.3%) were satisfied with the experience, 23 (62.2%) were not satisfied and five did not know. Reasons for dissatisfaction were the feeling that the procedure was unnatural ($n = 10$); pain ($n = 5$); a lack of information, preparation or care from the team ($n = 5$); and a sense of failure or of not having felt anything ($n = 4$).

The interviews showed that caesarean section is often badly experienced by women, is a source of stress and guilt, and complicates bonding with the child:

> What shocked me was that I saw my legs in the light [bulb] above. I asked them to hide that. It was violent, I mean, honestly (30 years old, teacher, first child).

> It wasn't easy to be alone and with my arms tied in a cross (38 years old, dental assistant, third child).

> I was surprised by this whole thing, being like a starfish, all this agitation, the logistics, this preparation around me ... which is normal, eh, medicalized, but I wasn't expecting it at all (38 years old, human resources manager, second child).

> I had the impression that I didn't meet my child. I wasn't there at all. I didn't feel like it. I wanted to sleep. I fed him [the baby] but I wasn't very receptive (32 years old, nursery employee, first child).

This disappointment is amplified when the caesarean section is performed under general anaesthesia:

> My sister had taken photos and I told her, are you sure it's him? ... I didn't feel like taking it....... I missed a stage. I fell asleep, woke up and the baby was dressed. It's the fact of seeing him dressed. For me, a baby being born is naked (30 years old, unemployed, fourth child).

In-depth interviews showed that caesarean sections were experienced more serenely when the women were prepared for it or when a caesarean section was desired.

> I tell it with a lot of emotion because well, it's my delivery and the caesarean section is not at all an obstacle to fulfilment, to really participating in the birth of the baby, to having given birth to it (34 years old, human resources manager, first child).

In this context, the women displayed a capacity to draw positive aspects from events that are usually negatively experienced; for instance, separation at birth:

> And the positive aspect too is that you were able to actively participate in the birth, the first person the baby saw was you [by talking to her husband] (34 years old, manager in a business school, first child).

> I offered my husband a privileged moment with his child (38 years old, teacher, first child).

The qualitative approach showed that the factors that influenced the experience of caesarean section were preparation for birth, women's representation of caesarean section before delivery, and the caring attitude of the medical team.

Discussion

This research, which used a mixed methodology, showed that pregnant women interviewed in two French maternity settings had a very clear preference for vaginal birth, with this preference possibly linked to their sexual experience. The study also found that women who delivered vaginally were usually satisfied with their childbirth experience, while women who underwent a caesarean section had more mixed feelings.

Nature

Both the quantitative and qualitative approaches showed that the majority of the women interviewed wanted to give birth vaginally because they believe it is more natural. This reference to nature in their discourse may be related to the current movement driven by many women and associations against the excessive use of certain biomedical technologized procedures and, more broadly, against the biomedical institution in the field of sexual and reproductive health. In France, various key moments have contributed to the emergence of these demands in the public space. These include militant movements among feminist activists (such as the '#payetonuterus' movement in 2014 and the '#payetongyneco' movement in early 2017 on Twitter which have given room for expression for many women about the sexual and reproductive health care they receive) and the commissioning by the French Government of a report on obstetric violence (Bousquet et al., 2018). Over the last few years in France, women have strongly and increasingly demanded to be able to give birth in a less technological but still safe manner. In response to this demand and under pressure from user associations, in 2015, the Ministry of Health authorized the establishment of birthing centres led by midwives for a trial period of 5 years. The initial results of the evaluation in these birthing centres are promising; they have shown a satisfactory level of safety despite very low use of biomedical technology (Chantry et al., 2019).

Since the 1970s, in France, discussions around childbirth have been polarized around two conceptions of pregnancy and delivery: the first approach is based on physiology, and the second approach is based on pathology (Arnal,

2018). The dominant approach in France is the pathological approach, emphasizing obstetric risks and justifying the biomedicalization of pregnancy and childbirth. However, since the 2010s, the physiological approach, built around the idea of nature, has become increasingly prevalent, spread by user associations that are active in the public debate. As shown in Italy (Quagliariello, 2019), the majority of women in France continue to give birth in hospital, including women who promote a critical discourse on the use of biotechnology during childbirth. This research has shown that in maternity settings, the reference to nature is very present, even among women who have accepted the biomedical model as they give birth in a maternity hospital rather than a birthing centre. These results reinforce some previous research that has shown the elasticity of the concept of nature and the intertwining of the medical and the natural (Quagliariello, 2017).

Sexuality

This research also suggests that women's sexuality may impact and be impacted by their childbirth experiences. The women interviewed in this study who expressed a preference for vaginal birth tended to be sexually active late in their pregnancy, to find sexual intercourse pleasurable, and to believe that vaginal birth would not enlarge their vagina. These findings confirm previous research which emphasized the importance of the relation with the body and sexuality in the experience of childbirth (Maffi, 2012). Other research has also found a link between women's sexuality and the preferred mode of delivery, showing that some women may request a caesarean section to protect their perineum and thus their sexuality (and, in particular, their husband's pleasure) (Diniz and Chacham, 2004; Mi and Liu, 2014; Schantz et al., 2016). This research also offers evidence of a new and unexpected finding: the more comfortable women are with their bodies and their sexuality, the more likely they are to prefer vaginal birth.

Women's autonomous decision-making

The quantitative analysis did not show a link between women's preferred mode of delivery and their actual mode of delivery. On the same line, the qualitative findings suggest that French women actually have limited room to make decisions on their childbirth experience. In this study, women reported that they did not dare request a caesarean section when there were no medical indications, even if they wanted one. Moreover, less than half of the women (45.1%) thought that the mode of delivery should be decided by the woman herself, suggesting that women disempower themselves and entrust their body into the hands of biomedical childbirth teams. Although almost all of the women interviewed had a clear preference for their mode of childbirth, they seem to have internalized that they will not be in position to decide on their actual mode of delivery as it is a 'technological' event that remains beyond their control.

Shared vision of vaginal birth as natural

This study found that French midwives and obstetricians are not in favour of practising more caesarean sections, and maintain a certain position of 'resistance' against this practice. As mentioned above, women reported that caregivers clearly displayed their preference for vaginal birth, stating that women cannot request a caesarean section when it is not medically indicated. Many women and caregivers in France seem to share the vision of childbirth as being natural when it is free of any pathology. This shared vision may explain, in part, why France is one of the only countries in the world to have had a relatively stable caesarean section rate since the early 2000s, whereas this rate has been increasing steadily in most countries of the world (Vogel et al., 2015). On the same line, another study among European obstetricians showed a wide range of views regarding women's autonomy during childbirth. In response to the question, 'Can a woman request a caesarean section because that is her will?', the rate of positive responses varied from 15% in Spain to 79% in the UK. This rate was only 19% among French doctors (Habiba et al., 2006). This demonstrates how medical practices are shaped by social factors and vary between professional cultures. There is a need to explore the caregivers' view of childbirth by conducting interviews directly with caregivers.

Satisfaction

A large majority (94.5%) of women who gave birth vaginally were satisfied with their childbirth experience, compared with 24.3% of those who underwent a caesarean section.

In France, a movement toward more diversified places of birth started in the 1970s and increased in the 2000s, stemming from the will of some women to take control of their bodies. Many of these women described frustration about not having the birthing space they needed to match their expectations; they also described how they felt dispossessed of the childbirth experience (Charrier, 2015). The notion of women's 'empowerment' emerged spontaneously in women's discourse in the present research: women who gave birth vaginally felt satisfied and empowered. The experience played a role in the construction of their femininity and 'feeling like a woman'. In contrast, the women who delivered by caesarean section reported a very low level of satisfaction and a sense of not having experienced their childbirth.

As mentioned above, the dominant French obstetric model is governed by the notion of risk. This notion is so prevalent in the French discourse that alternative birthing places are only assessed through morbidity and mortality statistical indicators, while women's satisfaction is left aside (Charrier, 2015). In this vein, a recent evaluation of the quality and safety of the eight existing midwifery-led maternity centres in France could not look at user satisfaction, as there is still no consensus on the correct indicators by which to measure this (Chantry et al., 2019).

Limitations and strengths of this study

This mixed methods study draws on the potential strengths of both the qualitative and quantitative approaches used. The qualitative analysis allowed us to build on quantitative findings, illustrate them and bring a human face to them. It also allowed us to explore perspectives that were not planned in the predefined quantitative questionnaire (such as the reference to 'nature').

However, the study has some limitations. First, only 77.5% of women included in the study could be re-interviewed post partum; the remainder were too busy with their newborn, could not be reached by telephone, or refused to answer. This follow-up rate is close to that of another recent cohort study in France (Morin et al., 2019). While the results of the quantitative and qualitative approaches were very similar, sexuality was discussed less in the qualitative interviews than in the responses to the questionnaires. The present results suggest that women who are comfortable with their bodies may prefer to deliver vaginally, but this finding is not obvious from the spoken discourse of women during the in-depth interviews. This may be explained, on the one hand, by the taboo nature of sexuality, which can be difficult to address in a face-to-face interview. However, it may also be due to the indirect link between sexuality and the experience of childbirth found here. The logic is not the same as when some women have a preference for caesarean section because they think it will preserve their future sexuality. Here, the link is more subtle, more indirect and less easily expressed in an interview. Another limitation is related to the size of the study sample. As women with abnormal pregnancies have medical reasons to prefer caesarean section, it would have been interesting to repeat the multivariate analysis excluding this group of 50 women. However, the limited sample size did not allow such analysis. Some factors may have been missed explaining the preference for a defined mode of delivery.

Conclusion

In this study, most of the women interviewed expressed a clear preference to deliver vaginally. If caesarean section rates were to increase in France in the coming years, it would be very unlikely that this would be attributable to maternal requests. Another point sustaining this assertion is that French women do not yet seem to be in a position to express their will and to decide their mode of childbirth for themselves. Why French women feel so disempowered when the time comes to bear and deliver a child, and how to overcome that sense of disempowerment, remain to be explored. This low social demand from women seems specific to France and differs from other societies where this demand is stronger, such as in Asia. The reference to nature made by several women when explaining why they prefer vaginal birth to caesarean section shows the mistrust they have of excessive medicalization of reproductive health. These discourses are part of a broader movement of claims by some women against the medical institution that began in Latin America in the 2000s, and is now gaining some importance in many European countries. Finally, this study showed that the satisfaction of women who gave birth by caesarean section was much lower than that of women who gave birth vaginally. The caring attitude of the caregivers contributed to increasing this satisfaction. Caregivers need to be informed about their central role in women's experience of childbirth.

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Appendix A. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.rbms.2020.10.003.

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