

"This is the peer reviewed version of the following article: [Australian and New Zealand Journal of Obstetrics and Gynaecology, 2020] which has been published in final form at [doi.org/10.1111/ajo.13255] purposes in accordance with [Wiley Terms and Conditions for Self-Archiving](#)."

Women's experiences of decision-making and beliefs in relation to planned caesarean section: A survey study

Short title: Women's CS decision-making experience and beliefs

Keywords: Caesarean section, shared decision-making, birth beliefs and values, mode of birth preferences

Word count: 2495

Figures: 1

Tables: 3

Supplementary files: 2

Abstract

Background: The caesarean section (CS) rate is over 25% in many high-income countries, with a substantial minority of CSs occurring in women with low-risk pregnancies. CS decision-making is influenced by clinician and patient beliefs and preferences, and clinical guidelines increasingly stipulate the importance of shared decision-making (SDM). To what extent SDM occurs in practice is unclear.

Aims: To identify women's birth preferences and SDM experience regarding planned CS.

Material and Methods: Survey of women at eight Sydney hospitals booked for planned CS.

Demographic data, initial mode of birth preferences, reason for CS, and experiences of SDM were elicited using questions with multiple choice lists, Likert scales, and open-ended responses.

Quantitative data was analysed using descriptive statistics and qualitative data using content analysis. Responses of women who perceived their CS as "requested" versus "recommended" were compared.

Results: Of 151 respondents, repeat CS (48%) and breech presentation (14%) were the most common indications. Only 32% stated that at the beginning of pregnancy they had had a definite preference for spontaneous labour and birth. Key reasons for wanting planned CS were to avoid another emergency CS, prior positive CS experience, and logistical planning. Although 15% of women felt pressured (or were unsure) about their CS decision, the majority reported positive experiences, with over 90% indicating they were informed about CS benefits and risks, had adequate information, and understood information provided.

Conclusions: The majority (85%) of women appeared satisfied with the decision-making process, regardless of whether they perceived their CS as requested or recommended.

Introduction

The caesarean section (CS) rate has risen dramatically over recent decades, and exceeds 25% in many high-income countries^{1,2}, including a sharp rise in rates among those in spontaneous term labour with cephalic presentation^{3,4}. While sometimes a CS is clearly medically-indicated and potentially life-saving, there is mixed evidence for some indications, and decisions in relation to planned CS are often informed by women's or clinicians' preferences and beliefs^{5,6}. In particular, indications for CS following a previous lower-segment CS or maternally-requested CS leave room for decision-making to be influenced by beliefs and personal preferences^{7,8}. Studies suggest clinician beliefs and values in relation to CS can impact on clinical decision-making⁸⁻¹⁰. However, clinical decision-making, in particular when there are multiple reasonable treatment options, should be informed by a dialogue between the patient (i.e. woman) and the clinician around the risks and benefits of different options, and the patient's beliefs and preferences^{11,12}. This process of shared decision-making (SDM) is associated with improvements in patient satisfaction.¹³

This process of SDM for CS is now recognised as integral to high quality maternity care and stipulated in clinical guidelines¹⁴⁻¹⁸. Despite this, the extent to which SDM for CS occurs in Australia remains unclear. A recent international review of CS decision-making practices identified 34 studies¹⁹, of which only four were Australian²⁰⁻²³. It is also unclear whether SDM experiences of planned CS differ for women who perceive their CS as recommended versus requested. Women's reported experiences of emergency CS decision-making tend to be negative²⁴, and mixed for those who request planned CS, with some studies finding that women felt included in decision-making^{22,25} and others less so^{26,27}. However to our knowledge there are no direct SDM comparisons of women undergoing planned CS recommended by clinicians versus planned CS requested by the woman. Additionally, it is known that women's mode of birth preferences are a factor influencing CS rates, and up to 20% of women in high-income countries are reported to have preference for CS²⁸. As well

as impacting CS rates, initial mode of birth preferences might impact on women's perceptions of planned CS including SDM. The primary aim of this survey study was therefore to identify women's mode of birth preferences and experiences of CS SDM in Australia. A secondary aim was to compare the experiences of women who had requested versus those who were recommended to have a CS.

Materials and Methods

A mixed method survey was developed to capture women's initial mode of birth preferences (at the beginning of pregnancy) and their decision-making experiences of planned CS. A survey methodology was chosen to reach a larger population than interviews would allow, however with content analysis of qualitative responses to capture broader perspectives than binary or ordinal survey questions allow for.

Participants and recruitment

The survey was administered to pregnant women at eight Sydney public maternity hospitals between November 2018 and July 2019. Within a service evaluation framework, women were handed the survey by their midwife or obstetric medical staff at the time of CS booking (after 32 weeks gestation). Women were invited to complete the survey (electronic/online completion options also available) and return it to their hospital or to the researchers directly in a reply-paid envelope. While surveys were handed out antenatally it is possible some women completed the survey postnatally. Recruitment was managed by existing hospital staff within each hospital and the number of women approached was not recorded.

Data collection and analysis

The survey was developed by the authors, informed by feedback from clinicians and maternity managers within participating hospitals during piloting. Women who were from a non-English speaking background could either fill out the English survey or a translated survey, translated by

professionals with training in translating medical documents (available in Bangla, Simplified Chinese, Traditional Chinese, Arabic, Vietnamese and Hindi). The survey consisted of questions with multiple choice lists, Likert scales (a 5-item scale from strongly disagree to strongly agree) or open-ended responses (Supplementary file 1). Using open-ended questions, women were asked to describe the reason for CS, their initial mode of birth preferences, and their experience of decision-making. Demographic questions included who primarily provided care (midwife, obstetrician or GP shared care). For Likert scale questions, respondents were asked to rate ten statements about their birth beliefs and values, and experience of care in relation to planning for a CS.

All survey responses were entered into REDCap, a customisable web-based research data collection and administration application and exported into Microsoft Excel 2016. Quantitative responses were analysed descriptively in Excel 2016 (presented using whole numbers and percentages), and qualitative responses were exported to Microsoft Word 2016 for content analysis. To compare Likert scale responses (ordinal data) of women who had requested a CS versus those whose CS was medically recommended, data were exported into SPSS 25. Due to the Likert scale data not being normally distributed, a Mann-Whitney U Test was used to test for differences. Significance was set at < 0.01 . To allow for visualisation of the differences between women who requested versus had a CS recommended, this data is also presented in a graph using the means rather than median.

Quantitative responses (from Likert scales and multiple-choice questions) were compared to qualitative responses and reported together. Responses are presented using whole numbers and percentages. Ethics approval was granted by the South-Eastern Sydney Local Health District Human Research Ethics Committee (HREC ref no: 18/169 (HREC/18/POWH/356)).

Results

The survey was completed by 151 women, of whom 73% were multiparous and 21% (n=31) identified as belonging to a particular cultural or ethnic group. Seven women completed a translated survey (3 in Vietnamese and 4 Arabic). The number of women approached to participate is unknown. The most common model of care was GP Shared Care (34%), followed by combined midwifery and obstetric hospital care (21%), obstetric public care (18%), private obstetrician (9%), midwifery clinic (9%) and own named midwife (8%). Just over half (56%, n=85) saw a different doctor or midwife most visits, with the remaining 44% indicating having high levels of continuity of care.

Almost half were planning a repeat CS (48%, n=72), either because of a single previous CS (32%) or multiple previous CS (16%). The next most common reasons were breech presentation (14%, n=21), and previous vaginal birth (VB) trauma (6%, n=8). Over half the women (56%, n=85) indicated that a CS was clinician-recommended, and 44% (n=66) indicated that the CS was at their own request. For most indications (Table 1) some women perceived their CS as recommended while others perceived it as requested, while the qualitative comments show that at least for some women the CS was both requested and recommended. The most frequently reported reason for requesting a CS was a single previous CS (n=35, 23%), followed by maternal request because of childbirth fear, mental health reasons or mode of birth preference (n=7, 5%). While some women who had multiple previous CS or breech presentation also perceived their CS as “requested”, the comments suggest that the CS was also recommended. The most frequent reason for recommended CS was multiple previous CS (n=20), followed by breech presentation (n=15, 10%) and single previous CS (n=13, 9%).

Mode of birth preferences at the beginning of pregnancy

Thirty-eight per cent (n=56) of women indicated that they had wanted a CS at the beginning of their pregnancy, 32% (n=47) had hoped to go into labour naturally/without intervention (spontaneous labour and birth), and 30% (n=44) had no preference. Key reported reasons for preferring spontaneous onset of labour (32%) were: because they had wanted the experience of spontaneous onset of labour, perception of VB as 'better', safer, more natural or associated with a shorter recovery, or to avoid surgery and scarring (Table 2). Women who had no mode of birth preference (30%, n=44) commented that the main consideration was their baby's safety, and if baby was fine the mode of birth did not matter. They were happy to be guided by their health professional.

Key reasons women reported for wanting a planned CS were: to avoid another emergency CS; they had previously had a positive experience of CS and preferred this over the unknown; a planned birth allowed them to minimise the impact on their family or work life; they perceived CS as being easier in terms of recovery; a fear of VB; previous VB trauma, or simply that they did not want a VB (see Table 2).

Birth values and beliefs

In terms of birth values, 46% (n=67) disagreed or strongly disagreed with the statement *"For a woman, having a VB is a more empowering experience than giving birth by CS"*, and 26% (n=38) were undecided. Twenty-nine per cent (n=42) considered vaginal birth more empowering than CS. Nearly half the women disagreed or strongly disagreed that *"Women who give birth to their baby by CS miss an important life experience"* (46%, n=86), with 21% undecided (n=31). A third (33%, n=28) agreed or strongly agreed (Figure 1a).

Over ninety percent (92%, n=133) of women agreed or strongly agreed with the statement *"I believe that my doctor or midwife know what is best for me"* and only 2% (n=3) disagreed. Eighty-eight

percent (n=130) agreed or strongly agreed that *“I believe that I should be supported to make decisions about my own birth”*, with 8% (n=11) undecided. Only 4% (n=6) disagreed. There was a statistically significant difference in beliefs and values between women who had a requested versus recommended CS for only one item: *“I believe that my doctor or midwife know what is best for me”* (Table 3), with women who perceived their CS as recommended more likely to agree that their midwife or doctor knows what’s best.

Experience of decision-making

Women reported they received information about CS primarily from an obstetrician/obstetric medical staff (43%, n=64), from both a midwife and obstetrician/obstetric medical staff (40%, n=60), or from a midwife only (17%, n=25). While the majority of women reported a positive experience of SDM, feedback from some women highlighted opportunities for improvement.

More specifically, a substantial majority of women agreed or strongly agreed that they had been informed about the benefits and risks of CS (95%, n=142), that CS alternatives were discussed (89%, n=132), that they understood the information provided (97%, n=146), that they had adequate time to ask questions (96%, n=141) and time to discuss the information with their partner (93%, n=140), that they trusted the health professional providing information (93%, n=140), and that they were given adequate information to make an informed decision (90%, n=133) (Figure 1b). Qualitative feedback also suggested the majority of women felt they received the information they needed to make an informed decision, felt involved in the decision-making process, and felt heard (Table 2). However, 4%-11% of women answered these statements less favourably (Figure 1b), and felt they were not provided with the information they needed to be part of the decision-making process. Furthermore, 15% of women (n=22) felt pressured (or were unsure) regarding making their CS decision, and 36% (n=53) indicated they were not given written information.

Shared decision-making experience of women with 'requested' versus 'recommended' CS

There was no overall reported difference in women's reported experience around involvement in SDM between those who had a requested versus recommended CS (Table 3 and Figure 1c). The qualitative finding suggested the experiences of the two groups were similar, and overall positive. Only a small minority of women indicated they would have liked to receive more information, in particular when the CS was recommended. More specifically, most women who had a CS following a previous CS (n=71) reported a positive experience of decision-making, although some would have liked more information (Supplementary file 2).

Similarly, women with CS planned for breech presentation (n=21) mostly reported positive experiences, although two women who were recommended a CS reported they would have liked more information. Qualitative feedback from women who were planning to have a recommended CS for other medical indications (n=27) was also largely positive, suggesting most women felt comfortable with the decision-making process.

Discussion

Most participating women appeared comfortable with their CS decision, regardless of whether the CS was by maternal request or medically recommended. Women also reported an overall positive experience of decision-making, with similar findings for those who perceived their CS as requested versus recommended.

The majority of women either already wanted a CS or had no mode of birth preference at the beginning of their pregnancy. While these findings contrast with existing literature suggesting only 5-20% of women in high-income countries prefer a CS²⁹, given the design of the current study (where women indicated their earlier mode of birth preferences after a decision for planned CS was already made), these findings are not surprising. Furthermore, our study included a high number of parous women, including women with previous CS, and both these factors are associated with a CS preference^{29,30}.

The key reasons women reported in our study for wanting a planned CS are largely consistent with the existing literature, which shows CS preference is associated with perceptions of safety and recovery^{29,31}, fear of vaginal birth^{30,32}, wanting to avoid a previously negative experience, such as an emergency CS or birth trauma^{28,33}, and 'not wanting' to have a VB²⁸.

In terms of birth beliefs and values, consistent with their CS preference, two thirds of women did not agree that having a VB is more empowering than CS birth, or that women who birth their baby by CS miss an important life experience. However, the fact that a third of women with planned CS did agree with these statements suggests birth beliefs and values may merit specific exploration and counselling as part of planned CS consent, to emphasise the validity and importance of birth as a life experience regardless of whether it is by CS or VB. Regarding decision-making experiences, the majority of women reported they received the information they needed to make an informed decision, felt involved in the decision-making process, and felt heard. Our overall positive findings are consistent with some studies^{20,34}, but not others³⁵⁻³⁷.

A considerable minority of women reported that they were not provided with the information they needed, particularly they were not given written information about their options, or that they felt pressured/unsure (15%) in making their decision. This is consistent with Jou et al. (2015) who found

13.3% of women who had a CS reported that they had received pressure from a clinician to do so³⁸. Furthermore, similar to our findings, Puia et al. (2013) found that while the vast majority of women who had a CS reported they had received helpful information and been given the opportunity to ask questions, some had not received the information they needed to be engaged in decision-making³⁴. Also, Thompson et al. (2014) found women who had a CS reported being engaged in decision-making, with 93% informed about the risks and benefits of CS and consulted in relation to their preferences²⁰. Our findings suggest areas for clinical improvement include provision of written information about CS, and confirmation from women at their CS booking visit that they are indeed ready to consent and proceed (with rescheduling and further counselling for the minority who do not yet feel firm in their decision).

While this study provides insight into women's mode of birth preferences and experiences of decision-making, it has limitations. Firstly, although a consumer representative was involved in survey development, there was no consumer testing of surveys prior to distribution. Secondly, as surveys were administered within a service evaluation framework and handed to women by clinicians as part of routine care, we are unsure how many women were invited, and thus cannot report response rate. Thirdly, while surveys were handed out antenatally it is possible some women completed the survey postnatally, which may impact on their responses. However, given the vast majority of responses were returned to midwifery stations in the antenatal wards/clinics, we suspect few responses were completed postnatally. Survey timing in late pregnancy also introduces some element of recall bias, as we were asking women to report retrospectively what their birth preferences were in early pregnancy, and potentially confirmation bias since by the time of the survey women were already booked for CS (so initial CS preference may be over-reported). Finally, there is selection bias in that our study only included women already booked for CS (who are likely to have different birth preferences and beliefs to the broader maternity population), and included these women regardless of CS indication or parity, making aspects of our findings harder to

interpret. However, this approach has allowed us to compare the feedback per indication, adding depth to the study.

In conclusion, our study suggests that most of the women who participated were comfortable with their CS decision and satisfied with the decision-making process. There was high reported satisfaction with the decision-making process regardless of whether women perceived their CS as requested or recommended. A minority of women felt pressured regarding making their CS decision. Potential areas of improvement include universal provision of written information about options as part of the SDM process.

Tables

Table 1: Indication for CS as reported by women

Primary/main Indication for CS (category)*	Requested/ Recommended (N=151)	Examples of reasons for CS as reported by women (direct quotes)
Single previous CS (n=48, 32%)	Recommended, n=13	<i>Repeat caesarean - extension of uterine incision on left. Unable to attempt VBAC [vaginal birth after CS].</i>
	Requested, n=35	<i>Had a difficult experience last time with my daughter and after speaking to doctors, all agreed that a planned caesarean would be the best option for me.</i>
Multiple previous CS (n=24, 16%)	Recommended, n= 20	<i>This is my fourth c section after my first baby was delivered via emergency c section my second by elective c section my third by elective c section but became early emergency c section and now my fourth is elective c section.</i>
	Requested, n=4	<i>I had a C-section last year and this is my fourth C-section.</i>
Breech presentation (n=21, 14%)	Recommended, n=15	<i>Baby has been breech since 26/40 and we had a failed ECV [external cephalic version].</i> <i>Baby is breech position and large in size. I have high blood pressure making vaginal breech delivery not the safest option.</i>
	Requested, n=6	<i>Baby is breech and I have been given options. I was really hoping for a natural vaginal birth but considering the risks involved I have chosen C-section.</i> <i>Baby in breech position. I was offered option to deliver breech vaginally or have a C-section and I chose caesarean.</i>
Previous vaginal birth trauma (n=8, 6%)	Recommended, n=5	<i>I had a missed 4th degree tear which resulted in a fistula with the birth of my first child. After 5 surgeries to fix the damage I have no option but to opt for a C-section.</i> <i>Previous 3B tear and episiotomy, difficult and long recovery with ongoing symptoms including prolapse and incontinence.</i>
	Requested, n=3	<i>Previous birth I had 36hr delivery, lost 2L blood and big stitch. And I have urine leaking problem.</i>
Placenta praevia (n=7, 5%)	Recommended, n=7	<i>Low lying placenta and natural birth has higher risks involved.</i>

		<i>Low Lying placenta combined with other high risk factors.</i>
Maternal request because of childbirth fear, mental health reasons or mode of birth preference (n=7, 5%)	Requested, n=7	<i>Traumatized by my first vaginal birth.</i> <i>Anxiety and depression issues.</i> <i>I do not want to experience the natural birth again.</i> <i>Wanted to pursue a vaginal birth but was not going into labour naturally and didn't want a chemical induction.</i>
Suspected macrosomia (n=5, 3%)	Recommended, n= 3	<i>Because the baby is too big.</i>
	Requested, n=2	<i>The risk of complications with giving birth naturally due to baby being large.</i>
Twin pregnancy (n=5, 3%)	Recommended, n=4	<i>Safer option given the discrepancy in size between twin A and twin B.</i> <i>The doctor recommended for having a caesarean as both twins are sitting the wrong way and their bottom is down.</i>
	Requested, n=1	<i>Having twins - less stressful option for both myself and babies.</i>
Previous gynaecological surgery (n=5, 3%)	Recommended, n=5	<i>Had a large 14cm uterine fibroid removed in November 2014.</i> <i>Previous myomectomy in 2017.</i> <i>Previous uterine surgery for fetal surgery for spina bifida with a classical incision on the uterus.</i> <i>I had fibroid surgery before (full thickness).</i> <i>Fistulotomy surgery late last year (2018) high risk of a 4th degree tear if I have a natural vaginal delivery.</i>
Abnormal fetal lie (n=3, 2%)	Recommended, n=2	<i>Transverse / unstable lie 2nd baby (first was emergency caesarean).</i>
	Requested, n=1	<i>My choice as movements decreased - was to be induced but baby moved out of place and C-section suggested.</i>
Fetal growth restriction (n=2, 1%)	Recommended, n= 1	<i>Small baby- stillbirth risks and slight decreases in movements.</i>
	Requested, n = 1	<i>"Less risks as I have fibroids and a small baby"</i>
Maternal request - previous vaginal birth complications (n=2, 1%)	Requested, n=2	<i>Because of previous lack of oxygen at birth with my second daughter.</i>

		<i>The process of natural birth with the first baby had complications and I want to avoid that from happening again.</i>
Oligohydramnios (n=2, 1%)	Recommended = 2	<i>Low fluid around the baby.</i>
Active genital herpes (n=1)	Recommended, n=1	<i>HSV [genital herpes simplex virus] Positive.</i>
Cholestasis (n=1)	Recommended, n=1	<i>Due to having cholestasis it's safer to have a caesarean at 37weeks.</i>
Amniotic band (n=1)	Recommended, n=1	<i>Amniotic band issue, to avoid labour disrupting the band and causing a haemorrhage.</i>
Unclear (n=9)	Recommended = 5	No comments
	Requested =4	No comments

*some women noted multiple indications/important secondary reasons for CS.

Table 2: Mode of birth preferences and experiences of decision-making

Preference	Supporting quotes
Reason for not wanting a CS	
To experience spontaneous onset of labour	<i>Because it was the first time of being a mum, so I wanted to experience the natural unassisted childbirth (suspected macrosomia).</i>
Perceptions of VB as 'better' or safer	<i>I understand this is the healthiest way for Mum and baby (previous CS).</i>
Perceptions of VB as associated with a shorter recovery	<i>Vaginal birth is much shorter in terms of recovery time (maternal request).</i>
To avoid surgery and scarring	<i>I wanted to avoid surgery and scarring (placenta praevia).</i>
Perceptions of spontaneous onset of labour was perceived as more natural	<i>I felt like having a vaginal delivery was "what was meant to happen" (breech).</i>
Reasons for wanting a CS	
To avoid another emergency CS	<p><i>Because of my previous experience, I feel the emergency CS was not good and I had complication, I could not have first cuddle with baby (previous CS).</i></p> <p><i>I wanted a natural birth first time and ended up with an emergency CS and have been traumatised, so a planned CS is better for me this time (previous CS).</i></p> <p><i>Due to the trauma experienced in my first birth I decided to go with a C-section which I believe is the best for my baby and me (previous CS).</i></p>

	<p><i>Difficult first labour resulting in emergency c section (previous CS).</i></p> <p><i>Due to my experience last time when I had my daughter - had labour, suction, forceps, then she was distressed so had emergency C-section and then I had an infection and required re-admission to hospital and further surgery. So I just felt that I could do with having a more controlled environment this time around. (previous CS).</i></p> <p><i>I did not want to have the same/similar experience as my first birth, and given my daughter was born by emergency caesarean, I felt comfortable with a planned one this time (previous CS).</i></p> <p><i>I went through a long labour induction because of the pre-eclampsia ended to have a C-section and don't want to repeat the experience (previous CS).</i></p> <p><i>Previous emergency caesarean section after 15 hours of labour. I do not want to go through such a traumatic experience again (previous CS).</i></p>
Good experience with previous CS and happy to have repeat CS	<p><i>Good experience in first birth (Previous CS).</i></p> <p><i>Previous good experience with previous CS (Previous CS).</i></p>
Easier logistically and being able to plan ahead	<p><i>I have had extreme anxiety due to family issues that I needed to have a scheduled date due to having no one to look after my 2 year old child while I'm having my baby's (previous CS).</i></p> <p><i>Previous good experience with planned birth, self-employed so easier to plan work and baby (previous CS).</i></p> <p><i>It's much less stressful especially when you have a toddler at home (previous CS).</i></p> <p><i>I have to schedule my daughter to day care and make arrangement for my husband to look after me. I have no other family member here in Australia. (previous CS).</i></p> <p><i>Due to my husband's business, our preference is to have caesarean section at a planned time (placenta praevia).</i></p>
Perceptions of recovery as easier	<p><i>It is so much easier to have a planned elective c section in every aspect especially the recovery and being able to bounce back (previous CS).</i></p>
Previous birth trauma	<p><i>Because I've been left traumatised after 1st birth and left really bad for many years, couldn't imagine to go through that again (breech presentation).</i></p> <p><i>I was (and am) very pro-natural birth if possible, but this is my 3rd baby and I've experienced natural birth and caesarean to know what the effect of each was on my body. I know for me the long term recovery risks from natural birth were too great after my first experience, but I am glad I</i></p>

	<p><i>experienced it once as a right (sic) of passage into motherhood. (Despite the trauma!) (previous vaginal birth trauma).</i></p> <p><i>I have suffered since the birth of my daughter, physically. I understand all the 'taboos' around C-section but birth trauma is rarely discussed and it should be. Treatment for post birth trauma is also poorly funded! (previous vaginal birth trauma).</i></p>
Fear of vaginal birth / mental health reasons	<p><i>Because I was scared of having natural birth (twin pregnancy).</i></p> <p><i>I believe I am hospital phobic and birth phobic, quite likely due to a violent assault by a serial rapist in my neighbourhood when I was a teenager. The idea of spending time in a hospital at all, never mind doing something as intimate as labour, with strangers touching me, making decisions about my body for me, while I am in pain & feeling out of control, is inconceivable to me. And no, I have no desire to 'face my fears', I don't believe that's how PTSD works. I struggled with internal ultrasounds & felt pressured to have one and often cried at home afterwards. I actually feel empowered by taking control of this and arranging a C-section. Childbirth would cause me significant psychological injury (breech presentation).</i></p> <p><i>Nothing about natural birth seemed pleasant. It scared me and seemed to be nothing but painful and cause after effects that would last for the rest of my life. It was not something I had any interest in or an experience I wanted to suffer through (maternal request including mental health).</i></p>
Don't want a vaginal birth	<p><i>Because I do not want a normal birth (previous CS).</i></p>
Experiences of decision-making: Positive	
Felt involved in the decision making process	<p><i>Everyone was very helpful and provided me with information as I requested (previous CS).</i></p> <p><i>The baby doctor was informative but not pressuring while discussing everything the way she did. I learnt more this time than when I had my son (previous CS).</i></p> <p><i>I was given information and then left to make an informed decision with my husband (breech presentation).</i></p> <p><i>I was given all relevant information but given liberty to make my decision (previous CS).</i></p> <p><i>I have been really lucky to have a doctor I trust and listens to me. With my other pregnancies I felt all the decisions were made for me ... This time I feel included in the decision making process a lot more which makes me more comfortable and happy (previous CS).</i></p> <p><i>The staff were fabulously supportive of my decision to go with a caesarean after birth trauma from my first baby. I felt informed and trusted to make the decision right for my body with a strong</i></p>

	<p><i>understanding of the seriousness and risks of the procedure (previous VB trauma).</i></p> <p>Health professional took time to answer my many questions, were patient and non- judgemental. They took all the info very seriously - which is good (fetal growth restriction).</p>
Experiences of decision-making: Negative	
Not given written information about their options	<p><i>The Drs seem to have made the decision that it would be safer without really asking my opinion. Don't feel that I was able to decide for myself (single previous CS).</i></p> <p><i>I was not given any written information (breech presentation).</i></p> <p><i>I would have liked more information including print outs. I felt there is a lot of information available for natural vaginal delivery but not enough for C-section births (previous VB trauma).</i></p>

Table 3: Comparison between CS as requested or recommended of Likert scale responses**

	All	Requested	Recommended	P-value
	Median (IQR)	Median (IQR) N=66	Median (IQR) N=82	Mann Whitney
Birth beliefs and values				
For a woman, having a vaginal birth is a more empowering experience than giving birth by caesarean section	3 (2,4)	2 (2,3)	3 (2,4)	0.043
Women who give birth to their baby by caesarean section miss an important life experience	2 (1,3)	2 (1,3)	2 (1,3)	0.140
I believe that my doctor or midwife know what is best for me	4 (4,5)	4 (4,5)	4 (4,5)	0.003*
I believe that I should be supported to make decisions about my own birth	4 (4,5)	5 (4,5)	4 (4,5)	0.11
Experiences of decision-making				
I was told about the benefits and risks of a caesarean section	5 (4,5)	5 (4,5)	5 (4,5)	0.27
The alternatives to caesarean section (including the risks and benefits) were discussed with me	4 (4,5)	5 (4,5)	4 (4,5)	0.047
I feel confident that I understand the information I was provided	5 (4,5)	5 (4,5)	4 (4,5)	0.40
I was given as much time as I needed to ask questions about the information I was provided	5 (4,5)	5 (4,5)	5 (4,5)	0.74
I was given time to discuss the information provided to me with my partner or person close to me if I chose to	5 (4,5)	5 (4,5)	5 (4,5)	0.95

I trust the person who provided me with information about caesarean section	5 (4,5)	5 (4,5)	5 (4,5)	0.75
I felt pressured to make a decision	1 (1,2)	1 (1,2)	2 (2,3)	0.19
I was given written information about my options/choices	4 (3,5)	4 (3,5)	4 (3,5)	0.07
I felt I was given enough information to make an informed decision about my birth options	4 (4,5)	4 (4,5)	4 (4,5)	0.46

*Statistically significant at $p < 0.01$

** Likert scale statements rated on a 5-item scale from strongly disagree to strongly agree.

Figures

Figure 1a: Women's birth beliefs

Figure 1b: Women's experiences of decision-making

Figure 1c: Comparison between CS as requested or recommended of Likert scale responses

References

1. AIHW. Australia's mothers and babies 2016 - in brief. Canberra: Australian Institute of Health and Welfare; 2018.
2. OECD. Caesarean section (indicator). 2019. <https://data.oecd.org/healthcare/caesarean-sections.htm> (accessed 13/12/2019).
3. Brennan D, Murphy M, Robson M, O'Herlihy C, Colm M. The singleton, cephalic, nulliparous woman after 36 weeks of gestation: contribution to overall caesarean delivery rates. *Obstet Gynecol* 2011; **117**: 273-9.
4. Boerma T, Ronsmans C, Melesse DY, Barros AJD, Barros FC, Juan L, et al. Global epidemiology of use of and disparities in caesarean sections. *The Lancet* 2018; **392**(10155): 1341-8.
5. Fuglenes D, Aas E, Botten G, Oian P, Kristiansen IS. Maternal preference for cesarean delivery: do women get what they want? *Obstetrics and gynecology* 2012; **120**(2 Pt 1): 252-60.
6. Hildingsson I. How much influence do women in Sweden have on caesarean section? A follow-up study of women's preferences in early pregnancy. *Midwifery* 2008; **24**(1): 46-54.
7. Coates D, Homer C, Wilson A, Deady L, Mason E, Foureur M, et al. Indications for, and timing of, planned caesarean section: Systematic analysis of guidelines. *Women and Birth* 2019.
8. Klein M, Kaczorowski J, Hall W, Fraser W, Liston R, S E. The attitudes of Canadian maternity care practitioners towards labour and birth: many differences but important similarities. *J Obstet Gynaecol Can* 2009; **31**(9): 827-40.
9. Klein M, Liston R, Fraser WD, Baradaran N, Hearps SJC, Tomkinson J, et al. Attitudes of the New Generation of Canadian Obstetricians: How Do They Differ from Their Predecessors? *Birth* 2011; **38**(2): 129-39.
10. White VanGompel E, Perez S, Wang C, Datta A, Cape V, Main E. Measuring labor and delivery unit culture and clinicians' attitudes toward birth: Revision and validation of the Labor Culture Survey. *Birth* 2019; **46**(2): 300-10.
11. Australian Commission on Safety and Quality in Healthcare. The second Australian Atlas of Health Care Variation. 2017. <https://www.safetyandquality.gov.au/atlas/> (accessed 11 Jan 2017).
12. Dimopoulos-Bick T, Osten R, Shipway C, Trevena L, Hoffmann T. Shared decision making implementation: a case study analysis to increase uptake in New South Wales. *Australian Health Review* 2019: -.
13. Stacey D, Légaré F, Lewis K, Barry M, Bennett C, Eden K, et al. Decision aids for people facing health treatment or screening decisions. *Cochrane Database of Systematic Reviews* 2017; (4).
14. Berger B, Schwarz C, Heusser P. Watchful waiting or induction of labour--a matter of informed choice: identification, analysis and critical appraisal of decision aids and patient information regarding care options for women with uncomplicated singleton late and post term pregnancies: a review. *BMC Complement Altern Med* 2015; **15**: 143.
15. Dugas M, Shorten A, Dube E, Wassef M, Bujold E, Chaillet N. Decision aid tools to support women's decision making in pregnancy and birth: a systematic review and meta-analysis. *Soc Sci Med* 2012; **74**.
16. Vlemmix F, Warendorf J, Rosman A, Kok M, Mol B, Morris J, et al. Decision aids to improve informed decision-making in pregnancy care: a systematic review. *BJOG: An International Journal of Obstetrics & Gynaecology* 2013; **120**(3): 257-66.
17. RANZCOG. Standards of Maternity care in Australia and New Zealand. Melbourne: The Royal Australian and New Zealand College of Obstetricians and Gynaecologists; 2016.
18. NICE. Clinical Guideline: Caesarean section. CG132. 2011.
19. Coates D, Thirukumar P, Henry A. Making shared decisions in relation to planned caesarean sections: What are we up to? *Patient Educ Couns* 2019.

20. Thompson R, Miller YD. Birth control: to what extent do women report being informed and involved in decisions about pregnancy and birth procedures? *BMC Pregnancy* 2014; **14**(1): 62.
21. David S, Fenwick J, Bayes S, al. e. A qualitative analysis of the content of telephone calls made by women to a dedicated 'next birth after caesarean' antenatal clinic. . *Women and Birth* 2010; **23**(1): 166-71.
22. Fenwick J, Staff L, Gamble J, Creedy DK, Bayes S. Why do women request caesarean section in a normal, healthy first pregnancy? *Midwifery* 2010; **26**(4): 394-400.
23. McGrath P, Phillips E, Vaughan G. Vaginal birth after Caesarean risk decision-making: Australian findings on the mothers' perspective. 2010; **16**(3): 274-81.
24. Coates D, Thirukumar P, Henry A. Women's experiences and satisfaction with having a caesarean birth: An integrative review *Birth* 2019.
25. Kornelsen J, Hutton E, Munro S. Influences on decision making among primiparous women choosing elective caesarean section in the absence of medical indications: findings from a qualitative investigation. *Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstetrique et gynecologie du Canada : JOGC* 2010; **32**(10): 962-9.
26. Kennedy HP, Grant J, Walton C, Sandall J. Elective caesarean delivery: A mixed method qualitative investigation. *Midwifery* 2013; **29**(12): E138-E44.
27. Kenyon SL, Johns N, Duggal S, Hewston R, Gale NJBp, childbirth. Improving the care pathway for women who request Caesarean section: an experience-based co-design study. 2016; **16**(1): 348.
28. Coates D, Thirukumar P, Spear V, Brown G, Henry A. What are women's mode of birth preferences and why? A systematic scoping review. *Women & Birth* 2019.
29. Coates D, Goodfellow A, Sinclair L. The preferences and experiences of care and decision-making of women and clinicians in relation to induction of labour: A systematic scoping review. *Woman and Birth* 2019.
30. Fuglenes D, Aas E, Botten G, et al. Why do some pregnant women prefer cesarean? The influence of parity, delivery experiences, and fear. *American Journal of Obstetrics and Gynecology* 2011; **205**(1): 45-6.
31. Bonzon M, Gross MM, Karch A, et al. Deciding on the mode of birth after a previous caesarean section - an online survey investigating women's preferences in Western Switzerland. *Midwifery* 2017; **50**: 219-27.
32. Stutzer PP, Berlit S, Lis S, Schmahl C, Sutterlin M, Tuschy B. Elective Caesarean section on maternal request in Germany: factors affecting decision making concerning mode of delivery. *Arch Gynecol Obstet* 2017; **295**(5): 1151-6.
33. Chen S-W, Hutchinson AM, Nagle C, Bucknall TK. Women's decision-making processes and the influences on their mode of birth following a previous caesarean section in Taiwan: a qualitative study. *BMC pregnancy and childbirth* 2018; **18**(1): 31-.
34. Puia D. The cesarean decision survey. *The Journal of perinatal education* 2013; **22**(4): 212-25.
35. Kingdon C, Neilson J, Singleton V, Gyte G, Hart A, Gabbay M, et al. Choice and birth method: mixed-method study of caesarean delivery for maternal request. 2009; **116**(7): 886-95.
36. Boz İ, Teskereci G, Akman G. How did you choose a mode of birth? Experiences of nulliparous women from Turkey. *Women & Birth* 2016; **29**(4): 359-67.
37. Redshaw M, Hockley C. Institutional processes and individual responses: women's experiences of care in relation to cesarean birth. *Birth* 2010; **37**(2): 150-9.
38. Jou J, Kozhimannil KB, Johnson PJ, Sakala C. Patient-Perceived Pressure from Clinicians for Labor Induction and Cesarean Delivery: A Population-Based Survey of U.S. Women. *Health Services Research* 2015; **50**(4): 961-81.