# Women's experiences and satisfaction with having a caesarean birth: An integrative review


## Abstract

**Background:** With around one third of woman having a caesarean birth, better understanding of women's experiences of having a cesarean is vital to improve women's experiences of care. The aim of this review was to gain insight into women's experiences of and satisfaction with cesarean, and to identify factors that contribute to women's poor experiences of care.

**Methods:** Using an integrative methodology, evidence was systematically considered in relation to women's experiences of cesarean birth, and whether they were satisfied with their experience of care. To identify studies, PubMed, Maternity and Infant Care, MEDLINE, and Web of Science were searched for the period from 2008 to 2018, and reference lists of included studies were examined.

**Results:** Twenty-six studies were included. Although the majority of women were satisfied with their cesarean, a large minority of women are dissatisfied and report a negative experience. In particular women who had an emergency cesarean are less satisfied than women who had a vaginal birth**.** Non-medical factors or experiences that appear associated with dissatisfaction include 1) feeling ignored and disempowered; 2) experiencing a loss of control; 3) not being informed and 4) birth values that favour vaginal birth.

**Conclusion:** Women's experiences of cesarean birth appear influenced by the circumstances (emergency versus planned), the extent to which they felt involved in decision-making and in control

of their experience, as well as their birth values and beliefs. Increasing antenatal, intrapartum and post-partum communication and shared decision-making may help engage women as an active participant in their own birth.

**Keywords:** mode of birth, caesarean section, experiences of care, birth satisfaction

# Background

Caesarean Section rates have risen significantly over recent decades with global proportions almost doubling from 12.1% of all live births in 2000 to 21.1.% in 2015 [1]. In Australia, the cesarean rate has increased from 31.9% in 1999 [2] to 34% in 2016 [3]. The most striking rise in cesarean rate is found in women with 'low risk pregnancies', i.e. healthy women with one baby in a cephalic position at term [4]. This group constitutes 35–43% of the overall cesarean birth rate in high income countries [5,6]. A cesarean is a surgical intervention that carries a risk of maternal and neonatal complications[7], and at current levels is not associated with improvements in maternal or neonatal outcomes [8-11].

Given that around a third of women have a cesarean birth in many high income countries[3,12], understanding women's experiences of having a cesarean is important. A better understanding of women's experiences of a cesarean will help identify opportunities to improve women's experience of care, as well as providing clinicians with the information required to better prepare women for the reality of having a cesarean birth. It is increasingly recognised that to provide high-quality women-centred care, it is critical that women are actively engaged in decisions about their own care through a process of shared decision-making [13-15]. Shared decision-making refers to a process of decision-making that is collaborative between the clinician and patient, and considers both the best-available evidence as well as the patients' values and preferences [16-19]. The importance of shared decision-making is increasingly reflected in guidelines stating that the decision for a cesarean should be informed by a process of shared decision-making, involving a discussion around the medical risks and benefits, as well as what the experience of having a cesarean may be like [20-22].

The aim of this review was to gain insight into women's subjective experiences of and satisfaction with cesarean birth, by synthesising findings from both quantitative and qualitative research. Specifically, this paper synthesises findings from studies in relation to women's experiences of

cesarean birth in order to a) identify their levels of satisfaction, and b) identify non-medical factors or experiences that contribute to dissatisfaction and negative experiences of care. This information can then be included in shared decision-making consultations to better prepare women for birth, and also used to identify opportunities to improve women's experiences of care.

## Methods

An integrative review was conducted following the framework developed by Whittemore and Knafl (2005) [23]. This methodology was chosen as it allows for the synthesis of diverse methodologies and perspectives, and can generate a comprehensive understanding of complex issues [23,24].

Studies were located through two primary methods. Firstly, English language databases including PubMed, Maternity and Infant Care, MEDLINE, and Web of Science were searched for full-text, English articles published between 2008 to 2018. Search terms included 'caesarean section' and 'cesarean' in combination with the terms 'satisfaction', 'experience*' and 'experience of care'. Secondly, the reference lists of included studies and systematic reviews were searched for further studies for inclusion (See Figure 1).

**Insert Figure 1**: Flow of papers through review

References were imported into EndNote for screening. All articles were reviewed by reading the title, abstract and, if required, full text for inclusion as per the criteria outlined in Table 1.

Table 1: Inclusion and exclusion criteria

| **Inclusion criteria** | **Exclusion criteria** |
|---|---|
| Studies that assessed women's subjective experiences and satisfaction with cesarean birth (emergency as well as planned, both medically-indicated and maternally-requested without medical indication) | Studies limited to women's experience or satisfaction with:<br>- Maternity care more broadly<br>- The process of mode of birth preference or decision-making only |
| Primary qualitative, quantitative and mixed method studies (regardless of study design) | Narrative reviews, opinion pieces, commentaries, and review articles |
| Conducted in high and middle-income countries | Conducted in low-income countries |
| Published in peer-reviewed journals | Non-peer-reviewed studies |
| Published between January 2008 and December 2018 | Published before 2008 |
| In English | Not written in English |
| Full text available | No full text available or accessible |

Information relevant to the research question (i.e. study aim, participants, sample size, methods, and findings) was extracted from each article by two reviewers independently using a purposely designed data extraction template.

The quality of the selected studies was assessed by two reviewers using the Mixed Method Appraisal Tool (MMAT) version 2011 [25] . This tool was selected as it is well suited to a public health context [26] and meets accepted standards in terms of validity and reliability [27,28]. MMAT consists of a checklist with 19 items to assess the quality of five different types of studies (qualitative research, randomized controlled trials, non-randomized studies, quantitative descriptive studies, and mixed methods studies) [29]. An overall methodological quality score was calculated using the tool for each included study. Scores are expressed as the number of criteria met out of four, ranging from 25% (one criterion met) to 100% (all criteria met). For mixed method studies, the overall quality score is the lowest score of the study components (qualitative and quantitative).

A synthesis of the extracted information was conducted, and the results are reported narratively and tabularly.

# Results

This review identified 26 studies for inclusion, including 5693 women who had a cesarean birth. As outlined in Table 2, included studies varied in terms of design, and consisted of 12 survey or questionnaire studies, nine qualitative studies, and four cohort studies (Table 2).

**Insert Table 2: Study Characteristics**

Twenty-two studies were conducted in high-income countries, and four in middle-income countries. While it was not always clearly stated, it appears that the majority of studies were conducted in a public hospital setting (see Table 2). In terms of study participants, the majority (n=16) of studies included women who had had a cesarean more broadly, regardless of whether the cesarean was maternally requested, planned for a medical indication or an emergency. Six studies regarded women who primarily had a cesarean by maternal request, and four focussed on women who had an emergency cesarean.

The quality of included studies was high, with 20 studies rated as 100% (meeting all quality criteria), and six rated at 75% (meeting 3/4 criteria) (see Table 3: Included studies).

**Insert Table 3: Included studies**

## Cesarean Birth Satisfaction and Experience

Twenty-one studies presented findings in relation to women's level of satisfaction with cesarean birth [30-50]. To gain insight into women's overall satisfaction, the majority of these studied administered a survey or questionnaire to women post-cesarean (n=15), and some conducted interviews (n=6). Overall these studies showed that while the majority of women are satisfied with their cesarean, a substantial portion were not, and reported a negative experience [30,35-38,41,44,49]. It appears that between 6%-28% of women are dissatisfied with their cesarean birth [35,41,44,49]. A Canadian study that included 1688 women who had had a cesarean found that 24% were not satisfied with their experience[35], with this number higher in a study from Turkey, at 28% (N=423)[49]. In a study from Germany, 18% of women who had requested a cesarean regretted their decision (N=28)[44]. However, in a study from Austria (n=48), 81% of women who had a planned cesarean were "generally satisfied" and only 6% "not satisfied at all".

Ten studies compared the birth satisfaction of women who had a cesarean with those who had a vaginal birth, presenting mixed findings [32-35,42,43,45-47,50]. While some of these studies suggest vaginal birth is associated with greater satisfaction [32,34,35,45,47], other studies found no difference between these groups [33,42], or found that satisfaction with cesarean is greater [43,46] or on par[50] with vaginal birth. These different findings can be explained, at least in part, by whether the women included in these studies had an emergency or planned cesarean. While emergency cesarean is consistently shown to be associated with poorer birth experience and satisfaction than vaginal birth [43,47,50], studies present mixed finding in relation to planned cesarean. Some studies have found that women's satisfaction with planned cesarean is greater than[43,46] or similar to [50] VB, while other studies have found that women who had a planned cesarean are less satisfied than those who had a vaginal birth[32,34].

This notion that birth satisfaction may depend on the type of cesarean is supported by studies that compared the experiences of women who had an emergency cesarean with those who had a

planned cesarean. These studies showed that women who had an emergency cesarean reported a more negative birth experience than those who had a planned cesarean [30,31,39,43,45,48,50]. For example, the aforementioned American longitudinal cohort study (n=576) found that although vaginal birth was associated with the least distress, women who had a planned cesarean reported greater fulfilment and less difficulty compared to women who had an emergency cesarean, a spontaneous vaginal birth or an operative vaginal birth [45]. Similarly, an Australian survey study (n=169) found that women who had an emergency cesarean were significantly less satisfied with their experience than those who had a planned cesarean, even though vaginal birth remained associated with the highest satisfaction scores [31]. These findings are supported by two qualitative studies, which found that women who had a planned cesarean described their experience more positively than those who had an emergency cesarean [39,48]. One study found from Germany (N=335) found no difference between the planned and emergency cesarean groups, noting that this study also found no difference between cesarean and vaginal birth satisfaction [42].

## Experiences or factors that contribute to negative experience of care

Although cesarean birth experiences can vary widely, for some women, the cesarean birth was traumatic and resulted in long-term negative impacts including flashbacks and not even wanting further children [31,32,38,45,51,52]. A range of factors influence or impact women's experiences of cesarean, including medical factors and whether the cesarean was planned or an emergency. In relation to non-medical factors or experiences that may impact negatively on the cesarean experience, synthesis of study findings identified four key themes: 1) feeling ignored and disempowered; 2) experiencing a loss of control; 3) not being informed and 4) birth values that favour vaginal birth.

**Feeling ignored and disempowered**

A number of studies reported that women who had a cesarean felt ignored or disregarded by the attending medical staff throughout the birthing process [32,34,36,39,48]. For example, an interview study from Australia (N=28) found that women who had a cesarean reported feeling objectified, depersonalised and treated as if they were simply a medical case, rather than a woman experiencing a special life event [36]. An interview study by Fenwick et al. (2009) from the UK (N= 21) reported that women described the medical staff as lacking empathy, and not providing the psychological, emotional and physical support they required or had wanted [39]. Similarly, a large qualitative survey study from the UK (N=2006; 682 cesarean) by Redshaw & Hockley (2010) reported that women described feeling either invisible, dismissed or like an inconvenience when asking questions [48].

For many women, feeling ignored and dismissed resulted in a sense of disempowerment [36,38,39,48]. In the study by Redshaw & Hockley (2010) women described feeling like they occupied a junior role in their own birth, and were often told what to do by medical staff, rather than being heard or listened to, resulting in a sense of disempowerment [48]. These findings were echoed by an Australian study (N=28) where women described feeling pressured to "behave" and not disturb the doctor during their birth, which they described as disempowering [36].

**Experiencing a loss of control**

Connected to the theme of disempowerment were women's descriptions of feeling out of control. 'A loss of control' was a common theme across many studies, particularly reported by women who had an emergency cesarean [32,34,36,37,39,48,51,53,54]. Women described feeling unprepared, shocked, overwhelmed and out of control when they were rushed to theatre [37,48,51,54]. A Canadian study regarding women's experiences of an emergency cesarean (N=9) found that women reported being

distressed and helpless by the lack of control they had over surrounding events during their emergency cesarean [54]. These women reported that they there was not enough time to absorb that they were having a cesarean, as they had not prepared for this possibility antenatally [54].

This observation is supported by the interview study by Fenwick et al. (2009) (N=28) which found that women who had an emergency cesarean reported feeling more out of control than those who had a planned cesarean, and were less able to or comfortable with deferring control to the medical staff [39]. Women who felt well-informed and aware of what was happening, through effective communication, were better able to relinquish control [39]. The finding that a loss of control may be particularly associated with an emergency cesarean is supported by an Australian interview study, which found that women who requested a cesarean described their birth experience as "controlled", "panic-free" and "orchestrated" [53].

**Not being informed**

Closely connected to feeling out of control was the theme of 'not being informed'. A common theme in many studies was that women reported not being informed of what was happening or why decisions were made, nor given sufficient information regarding recovery [39,48,55]. The qualitative survey study by Redshaw & Hockley (2010) (N=2006) reported that women were not given enough information to understand what was happening during the birth, or about how to care for their baby postnatally [48]. Women reported that they were not routinely provided with information, and when they asked for information, they were often denied. Women who had had an emergency cesarean reported not being told why [48].

Furthermore, this lack of communication appeared to continue postnatally, with some women reporting that they needed to push their doctors and midwives for an appropriate debrief following

traumatic births [48,51]. Women explained that they had needed to debrief or talk to the medical staff post-birth to help understand the course of events that occurred during the birth and gain closure [51]. These qualitative findings are supported by a survey study that found that women were dissatisfied with the information they were given in relation to their care and recovery [55]. However, studies that compared women's satisfaction with the intrapartum information received, between women who had cesarean and those who had a vaginal birth, found no significant differences between these groups [32,34].

**Birth values and perceptions of failure**

Another theme was that many women described their cesarean birth a reflecting the loss of a normal birthing experience and perceptions of having missed out. Women who had valued or wished for a vaginal birth described being disappointed [38,39], and some reported struggling with a sense of failure [37,39,48,51,54]. However, while in some studies women reported feeling they had missed out on an important experience [38,39], not all women valued vaginal birth above cesarean and some women did not appear to view their cesarean birth as lesser [51,54]. Some studies suggest that whether women felt they missed out or not may depend on whether they were awake during the procedure [37], or whether they had an opportunity to bond with their baby immediately post-birth [36,39,53].

# Discussion

The review findings indicate that while the majority of women are satisfied with their cesarean, a substantial proportion of women are not and report a negative experience. Although several included studies found no difference in satisfaction by mode of birth, by and large, women who had

a cesarean were less satisfied with their experience than women who had a vaginal birth, particularly women who had an emergency cesarean. While experiences can vary widely, some reported very negative or even traumatic birth experiences, impacting on their willingness to have further children. This highlights the importance of developing strategies to improve women's experiences of cesarean birth. While women's experiences appear heavily influenced by medical factors, particularly whether the woman had a planned or emergency cesarean, this study identified four non-medical reasons or factors for women who reported a negative experience, namely: 1) feeling ignored and disempowered; 2) experiencing a loss of control; 3) not being informed and 4) birth values that favour vaginal birth.

In essence, this suggests that women's experiences of cesarean birth are influenced by the extent to which they felt involved in decision-making and in control of their birth experience, as well as their birth values and beliefs. To improve women's experiences, efforts could focus on enhancing women's active involvement in their own care, and include shared decision-making. As noted in the introduction, shared decision-making refers to a collaborative process where the clinician provides the patient (woman in this context) with evidence-based information to support patients' active involvement in their own care, and ensure treatment decisions are informed by patient values and preferences [16-18,56].

While this review was partly motivated by a need to identify women's experiences of care, so that this information could be included in shared decision-making consultations to guide mode of birth decisions antenatally, it has highlighted the need for shared decision-making and better communication antenatally, during birth and postnatally. This review highlights that poor communication, where women feel dismissed and not in control of their own birth, is a key issue that contributed to a negative experience. Many of the women who participated in the included studies reported that they were not informed of what was happening during the birth and why, and

when they posed questions, they were often left unanswered[32,34,36,39,48]. Furthermore, women reported feeling ignored, dismissed, and like they should be 'well-behaved' so as to not disturb the operating staff, resulting in a loss of control and feelings of disempowerment[32,34,36,39,48].

While we recognise that shared decision-making can be complicated during an emergency, there are a number of tools available in the literature designed to improve communication during surgical emergencies [57,58]. While some decisions in acute settings cannot truly be shared, there are usually opportunities to inform the woman step-by-step of what is happening and explain what decisions are being made and why. In the event that there are no opportunities to explain what is happening, an opportunity to 'debrief' should be offered post-birth, where staff can explain their intrapartum decisions and answer any questions that the women may have. As noted by a couple of studies, women would have liked an opportunity to ask questions about their birth to help them understand and process their experience [48,51].

Furthermore, given that in Australia one in three women have a cesarean birth[3], and emergency cesarean is as common as planned (for example, a 16% rate in Australian first-time mothers spontaneously labouring at ≥37 weeks)[3], preparing women for this possibility antenatally would also be appropriate [20-22]. Routinely informing women of the risks and benefits and what the experience of having a cesarean may be like might make women who have a cesarean feel more informed during the birth, and also provide an opportunity to prepare those women who feel strongly about having a vaginal birth for the eventuality of an emergency cesarean [56].

To support enhanced information sharing and support women to be actively engaged in decisions about their birth, clinicians can be trained to improve their shared decision-making or communication skills [56,59]. In addition, models of midwifery continuity of care may be valuable in

supporting effective communication, and play an important role in supporting women to feel less out of control and more satisfied with their cesarean birth experience [60,61].

This review provides an overview of the field, systematically analysed by two reviewers for both content and quality. Furthermore, the integrative nature of this review synthesises information from both quantitative and qualitative methodologies to provide insight into women's experiences of having a caesarean birth. Limitations include that only full-text articles published in English were included; there may have been valuable insights into women's cesarean birth experiences published in non-English journals, however resources to consider non-English work were not available. Furthermore, only articles published between 2008 and 2018 were considered. However, given the evolution of maternity care services and the incorporation of new practices such as shared-decision making, it is likely that the more recent research covered in this review is most relevant to informing current care and identifying further areas of improvement. Furthermore, the choice was made to include only those studies published over the previous 10 years to capture the experience of present-day women in a culture where cesarean birth is normative.

## Conclusion

While many women report positive experiences of care, a large minority of women are dissatisfied with their cesarean and report a negative experience. While women's experiences are influenced by medical factors, particularly whether the woman had an emergency or planned cesarean, women's experiences of cesarean birth are also influenced by the extent to which they felt involved in decision-making and in control of their experience, as well as their birth values and beliefs. To

improve women's experiences and more actively involve them in their own birth, efforts should focus on improving antenatal, intrapartum and post-partum communication.

**Tables**

**Table 2: Study characteristics**

| Characteristic | Number of studies | Countries and references |
|---|---|---|
| **Study design** | | |
| Survey study/Study in which questionnaires were administered | 12 | Sweden [34,52], Iran[33,55], Canada [35], US[43], Belgium[40], Turkey[49], Nigeria [30], Australia[31], Germany[42,44] |
| Cohort study | 5 | Sweden[32,47], US[45,46,50] |
| Qualitative study | 9 | Australia[36,38,53], UK[39,48], Austria[41], Israel[37], Canada[54], Japan[51] |
| **Country income level** | | |
| High income country | 22 | Sweden [32,34,47,52], Australia [31,36,38,53], US[43,45,46,50], UK[39,48], Canada [35,54], Israel[37], Germany [42,44], Japan[51], Belgium[40], Austria [41] |
| Middle income country | 4 | Iran[33,55], Turkey[49], Nigeria[30] |
| **Type of cesarean birth of participants** | | |
| Women who requested a cesarean including women who requested a repeat cesarean | 6 | Sweden [32,34], Belgium [40], Australia[53], US[46], Germany[44] |
| Women who had an emergency cesarean | 4 | Iran[55], Israel[37], Canada[54], Japan[51] |
| Women had a cesarean for different reasons (maternally requested, emergency, planned and/or repeat) | 16 | Australia[31,36,38], UK[39,48], Canada [35], Sweden [47,52], Turkey[49], US[43,45,50], Nigeria [30], Iran[33], Germany [42], Austria [41] |
| **Hospital Setting** | | |
| Public hospital | 8 | Nigeria [30], Israel[37], Australia[38], Canada [35,54], Sweden[47], Belgium[40], Germany [42] |

| | | |
|---|---|---|
| Private hospital | 1 | Japan[51] |
| Both public and private hospitals | 3 | Turkey[49], Iran[55], Australia[31] |
| Unclear | 14 | Sweden [32,34,52], Australia[36,53], US[43,46,50 45] UK[39,48], Austria [41], Germany[44], Iran [33] |
| **Study aim – satisfaction or experience of care as primary or secondary outcome** | | |
| Experiences/Satisfaction was the primary focus of the study | 22 | Sweden [32,34,47,52], Australia [31,36,38], UK[39,48], Canada [35,54], Iran[33,55], US[43,45,50], Nigeria[30], Israel[37], Japan[51], Belgium[40], Germany [42], Austria [41] |
| Investigated experiences or satisfaction as part of a larger study | 4 | Turkey[49], Australia[53], US[46], Germany [44] |

**Table 3: Included studies**

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| **QUANTITATIVE STUDIES** | | | |
| Akarsu & Mucuk (2014) [49]<br>Turkey<br>75% | To explore Turkish women's satisfaction with cesarean birth | Survey study<br><br>N= 423 women who had a cesarean, surveyed one day post-partum | 72.1% of the women were satisfied with the cesarean, and 53% stated that they would prefer a cesarean for their next birth |
| Azari & Sehaty (2013)[55]<br>Iran<br>75% | To determine the quality of cesarean birth, with a focus on satisfaction | Survey study<br><br>N = 392 women who had cesarean because of medical reasons | 17.3% of women were not satisfied with their care, in particular with the informational aspect of their care. |
| Blomquist et al. (2011)[43]<br>US<br>100% | To describe maternal satisfaction with childbirth among women who had a VB or cesarean | Survey study<br><br>N= 204 women; 160 women planning VB and 44 women planning cesarean | Eight weeks postpartum, women who had a cesarean reported higher satisfaction ratings ($p = 0.023$), higher scores for fulfillment ($p = 0.017$), lower scores for distress ($p = 0.010$), and lower scores for difficulty ($p < 0.001$). The least favorable scores were associated with those who planned a vaginal birth but experienced an emergency cesarean (n = 48). |
| Bossano et al. (2017)[45]<br>US<br>100% | To investigate the extent to which satisfaction with childbirth differs by mode of birth >10 years after birth and identify aspects of birth that impact | Longitudinal cohort study<br><br>N = 576 women post-birth<br><br>A survey was administered between 10.1 and 17.5 years post-birth | Women who had a vaginal birth reported greater fulfilment ($P < .001$) and less distress ($P < .001$) than those who gave birth by cesarean. Women who had a planned cesarean reported the greatest median fulfilment scores and the lowest median difficulty scores. Median distress scores were lowest among those who gave birth by spontaneous vaginal birth. |

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| | maternal satisfaction | | |
| Chalmers et al. (2010)[35]<br>Canada<br>100% | To compare the experience of women who had a vaginal birth with those who had a cesarean | Survey study<br><br>N= 6,421 women who had recently given birth,1688 of which had a cesarean (13.5% with a planned cesarean and 12.8% emergency cesarean) | Women with cesarean were less likely to rate their labour and birth as either "very positive" or "somewhat positive" than women who had a vaginal birth (76.0%, 95% CI: 73.9–78.2 vs 81.5%, 95% CI: 80.3–82.6, *p*<0.0001). Satisfaction data was not separated into planned cesarean and emergency cesarean. |
| Enabudoso & Isara (2011)[30]<br>Nigeria<br>100% | To assess satisfaction in women who had a cesarean | Cross-sectional survey study<br><br>N= 211 women who gave birth by cesarean, surveyed 2-5 days after birth | 20% were not satisfied with their cesarean. Satisfaction with cesarean was significantly higher in those with an older mean age (p=0.001), primary rather than secondary level of school education (p = 0.038), initial reaction to the decision for cesarean as indifferent or happy rather than negative (p = 0.002), and planned rather than emergency cesarean (p = 0.048). |
| Hildingsson et al. (2010)[34]<br>Sweden<br>100% | To compare the experience of women who had a home birth versus those who had a maternally requested cesarean | Quantitative descriptive and comparative study (secondary data analysis from prior studies)<br><br>N = 797 women post-birth from 3 different previously conducted cohort studies; 126 who had a maternally requested cesarean (questionnaires 2 months post-birth), and 671 women who planned home birth (questionnaires 1 to 7 years after birth) | Compared with women who had a planned cesarean, women with a planned home birth (i.e. vaginal birth) were more satisfied with their care and had a more positive birth experience. Specifically, they were more satisfied with their participation in decision making and the support from their midwife, felt more in control, had a more positive birth experience, were more satisfied with intrapartum care. There were no differences in satisfaction with information about progress of labour and the medical aspects of intrapartum care. |
| Karlström et al. (2011)[32] | To compare experiences of | Longitudinal cohort study | Women who had a cesarean were less likely to agree with the statement that the birth was an exciting event. Women |

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| Sweden<br>75% | childbirth in women who preferred a cesarean during pregnancy and gave birth by a planned cesarean, and women who preferred to have a vaginal birth and actually had a spontaneous birth. | N= 693 women; 659 women who wished for and had a vaginal birth and 34 who wished for and had a cesarean<br><br>Questionnaires distributed during pregnancy and 2 months postpartum | in the cesarean group were more dissatisfied with support from the midwife, the opportunity to participate in decision making and the experience of control, even when controlling for background variables. No differences were found regarding women's experiences of partner support, the midwives' presence, intrapartum information, medical care, the partner's involvement in the care, or the possibilities of talking about the birth afterwards with the assisting midwife. |
| Kjerulff et al. (2017)[50]<br>US<br>100% | To investigate the association between mode of delivery at first childbirth and birth experience | Prospective cohort study<br><br>N= 3006 women who had a first baby of which 853 had a cesarean<br><br>Birth experience measure administered 1 month postpartum | Women who had an emergency cesarean had the least positive feelings overall about their birth, in comparison to those who had a spontaneous vaginal birth ($p < .001$), instrumental vaginal birth ($p= .001$), and planned cesarean ($p < .001$). Women who had an emergency cesarean were more likely to feel disappointed and like a failure in comparison to women who had spontaneous vaginal birth; and less likely to feel extremely or quite a bit proud of themselves. |
| Nilsson et al. (2012)[52]<br>Sweden<br>100% | To explore fear of childbirth during pregnancy and one year after birth and its association to birth experience and mode of birth. | Longitudinal survey study<br><br>N = 763 women during pregnancy and one year post-partum | Emergency cesarean was associated a negative birth experience and with fear of childbirth even one year after birth. |

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| Quiroz et al. (2011)[46]<br>US<br>100% | To compare birth satisfaction of women who had a vaginal birth with women who had a cesarean | Cohort study<br><br>N = 232 women enrolled in third trimester of pregnancy and followed to 8 weeks postpartum; 163 who had a vaginal birth and 69 a planned cesarean | Women who had a planned cesarean had higher mean satisfaction scores compared to women who had a vaginal birth (p= 0.025) |
| Shorten & Shorten (2012)[31]<br>Australia<br>100% | To explore outcomes for women who experienced a successful vaginal birth after cesarean and women who experienced an emergency or planned cesarean after one previous cesarean | Survey study<br><br>N = 169 pregnant women with a previous cesarean who were eligible for vaginal birth after cesarean; 33 had a VB, 34 emergency cesarean and 81 planned repeat cesarean | Mean scores out of a possible score of 10 ranged from 8.86 for spontaneous birth, 7.86 for elective repeat cesarean, 6.71 for emergency cesarean, to 6.15 for instrumental vaginal birth (p=.002). Mean satisfaction scores for spontaneous vaginal birth and elective repeat cesarean were statistically higher than for instrumental vaginal birth and emergency cesarean. Women who experienced instrumental vaginal birth and emergency cesarean also reported a higher number of postnatal health-related problems and were least likely to agree that they would make the same birth choice again. |
| Spaich et al. (2013)[42]<br>Germany<br>100% | To investigate the extent to which satisfaction with childbirth depends on the mode of birth | Survey study<br><br>N= 335 women who gave birth by cesarean or vaginal birth | No differences were observed between different mode of birth (normal 84.5 ± 14.6, primary cesarean 87.0 ± 13.5, secondary cesarean 83.2 ± 13.8, emergency cesarean 79.3 ± 7.3, operative vaginal birth 83.9 ± 13.6; p= 0.503). |
| Stutzer et al. (2017)[44]<br>Germany<br>75% | To compare birth satisfaction of women who had a vaginal birth with women who had a | Survey study<br><br>N = 57 women; 29 with vaginal birth and 28 with cesarean | Satisfaction with cesarean was high. 82% reported that they did not regret the decision to undergo a cesarean (in contrast to 11% who did) and 75% declared that they would undergo a cesarean in the next pregnancy while 14% did not. Women requesting a cesarean appraised the birth less |

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| | maternally requested cesarean | | negative (p = 0.008). No differences between groups were observed for positive anticipation, lack of self-efficacy or loneliness. |
| Tabrizi et al. (2014)[33]<br>Iran<br>100% | To determine the service quality of delivered care for people with cesarean and vaginal birth | Cross-sectional survey study<br><br>N = 200 post-partum women with a vaginal birth or cesarean | There was no statistically significant difference in satisfaction between women who had a cesarean and those who had a vaginal birth. |
| Wiklund et al. (2008)[47]<br>Sweden<br>75% | To investigate satisfaction based on mode of birth for women planning to have a vaginal birth | Prospective cohort study<br><br>N = 496 first-time mothers planning a vaginal birth | Women who had an emergency cesarean had more negative experiences of childbirth (P < 0.001). |
| **QUALITATIVE AND MIXED-METHOD STUDIES** | | | |
| Bayes et al. (2012)[36]<br>Australia<br>100% | To explore women's experiences of a medically necessary planned cesarean. | Interview study informed by grounded theory<br><br>N = 28 women who had a medically-indicated cesarean<br><br>Interviews conducted at 10-14 weeks post-partum | Women reported feeling ignored during the cesarean process, like they were just another case on an operating list. They experienced unexpected depersonalisation and objectification, and felt like unseen, passive recipients of care having a routine procedure rather than experiencing a special life event. Women felt a loss of centrality and a loss of control. They felt they needed to stay still and not interrupt the surgeon. They tried to balance the need to be involved in their babies' birth with their perceived duty to be a good patient, but felt unsuccessful on both counts. |
| Blüml et al. (2012)[41]<br>Austria<br>100% | To investigate women's expectations and | Interview study | 81% were generally satisfied with their cesarean, 13% moderately satisfied, and 6% not satisfied at all. Before the cesarean, only 54% felt they had been sufficiently informed |

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| | experiences with cesarean | N=48 women who had a planned cesarean,<br>Interviews conducted at 36 weeks gestation and then two to three days post-partum | about their planned cesarean. Women particularly wanted more information about postpartum course (23%) and about the cesarean specifically (21%). |
| Fenwick et al. (2009)[39]<br>UK<br>75% | To explore women's experiences and responses to cesarean | Interview study using grounded theory<br><br>N = 21 women who experienced a cesarean either by choice of necessity<br><br>20 interviews conducted between seven and 32 weeks post-partum. One interview conducted 18 months postnatally | Women felt that there was not enough physical, psychological and emotional support post-birth. Second-time mothers felt that midwives perceived them as sufficiently experienced and so did not require help. Women felt disappointed and sad that they were missing out on the normal experience of physically giving birth, as well as the initial moments of close-contact bonding with their newborn. Some reported a sense of failure. They reported not having an opportunity to debrief about their birth with their doctor and criticised the inadequate communication. Women also felt unprepared for the reality of a cesarean. Some women associated a cesarean with losing control. Women who felt well-informed and aware of what was happening through effective communication had a more positive experience and trusted caregivers enough to relinquish control. |
| Fenwick et al. (2010)[53]<br>Australia<br>100% | To describe the experiences of women who had a maternally requested cesarean | Telephone interview study<br><br>N=14 women who had a maternally requested cesarean<br><br>Interviews conducted within five years post-partum | Overall women were happy with the experience, however some women were disconcerted by the lack of emotion they felt. Women described their cesarean as a 'controlled panic-free environment', allowing them to have a 'perfectly orchestrated birth'. |
| Herishanu-Gilutz et al. (2009)[37] | To gain insight into women's | Interview study informed by phenomenology | Eight of ten women describe feeling detached and like an inactive participant in their birthing experience. These |

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| Israel<br>100% | experiences of emergency cesarean | N = 10 first-time mothers who an emergency cesarean<br><br>Interviews conducted between one and one and a half months post-partum | feelings were mostly stressed by women who had undergone cesarean under general anaesthesia, who described feeling estranged and detached. In mothers who had been operated on by epidural anaesthesia, feelings of detachment from the infant were not as distinct. |
| McGrath et al. (2010) [38]<br>Australia<br>100% | To explore the experiences of women who had a repeat cesarean | Interview study informed by phenomenology<br><br>N=8 women with previous cesarean<br><br>Interviews conducted six weeks postpartum | Women felt frustrated by their body's inability to give birth naturally, disappointed that they had no option but a cesarean, and a loss of confidence. The mothers expressed a strong maternal drive to give birth naturally and the inability to do so was described in terms of failure. |
| Onsea et al. (2018)[40]<br>Belgium<br>100% | To compare the experiences of women who had a "gentle" cesarean with those who received standard care | Mixed method study including interviews and questionnaires<br><br>N=21 women who had a maternally requested cesarean; 15 underwent a "standard" cesarean and 6 underwent a "gentle" cesarean (which attempted to mimic a vaginal birth in terms of the atmosphere)<br><br>Interviews conducted pre-operatively and then six weeks post-operatively | Overall, satisfaction with cesarean was high. However, women in the standard group felt less involved during childbirth and both groups still preferred vaginal birth in light of eventual future pregnancies. |
| Redshaw & Hockley (2010)[48]<br>UK | To explore women's experiences of cesarean | Qualitative survey study | Women reported mixed experiences of care. Women expressed feeling exposed and vulnerable. Some women felt ''stupid,'' ''dismissed,'' ''mocked,'' ''ridiculed,'' and |

| Author. Publication year. Country. Quality Score | Study aim | Methods and participants | Summary of main findings |
|---|---|---|---|
| 100% | | N =683 women who had a cesarean; 47% had a planned cesarean and 53% an emergency cesarean<br><br>Interviews conducted three months post-partum | ''ignored'' and ''a burden'' or ''a nuisance" during care. The lack of kindness, respect, and appropriate communication surprised women. Women felt disempowered, helpless, not listened to, uninformed, or did not have access to debriefing. A mismatch was found between what women described as their experience and what they had been led to expect. Women felt invisible when they asked for help and did not receive it. Information about post-operative care was not understood by women. |
| Somera et al. (2010)[54]<br>Canada<br>100% | To explore women's experiences of an emergency cesarean | Interview study<br><br>N = 9 women who had an emergency cesarean<br><br>Interviews conducted one to five days post-partum and then 11-27 days after the first meeting (second interview to clarify data) | Women reported being distressed and helpless by the lack of control they had over surrounding events during their emergency cesarean. They needed more time to absorb that they were having a cesarean. They also felt like an inactive participant in their infants' birth. Women experienced shock and disbelief that they had to have an emergency cesarean. They were confident that they would not need a cesarean so they did not prepare antenatally by reading the cesarean information. |
| Yokote (2008)[51]<br>Japan<br>100% | To explore women's experience of an emergency cesarean | Interview study<br><br>N = 11 women who gave birth by emergency cesarean<br><br>Interviews were conducted on the two days post-partum and then seven days post-partum | Women described feeling powerless and guilty when being informed they needed an emergency cesarean. Women appreciate the engagement and reassuring nature of their partners and the medical staff/midwives. |

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