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References
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**Journal article:**1. King VM, Armstrong DM, Apps R, Trott JR. Numerical aspects of pontine, lateral reticular, and inferior olivary projections to two paravermal cortical zones of the cat cerebellum. J Comp Neurol 1998;390:537-551.

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2. Voet D, Voet JG. Biochemistry. New York: John Wiley & Sons; 1990. 1223 p.

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**Women's Psychological Support Needs in Primiparous Childbirth Experience Across Delivery Modes**

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**Abstract**

**Background:** Supportive interactions with healthcare providers in childbirth correlate positively with postpartum emotional wellbeing; non-supportive interactions correlate negatively with it.. We aimed to determine what support women in unplanned cesarean deliveries (UPCD), vaginal deliveries (VD), and planned cesarean deliveries (PCD) cherish and lack the most. **Methods:** In Study 1, 227 primiparous UPCD women described their moments of feeling most and least supported during delivery. In Study 2, in order to assess whether the results generalize across birth modalities, a second sample of primiparous women (206 UPCD, 61 PCD, and 161 VD) responded to multiple-choice questions regarding support given by healthcare providers, based on Study 1. **Results:** In Study 1, the moments identified as most supported involved emotional support, decisional inclusion, and receiving information. The least supported moments involved lack of decisional inclusion and lack of emotional support. In Study 2, women, regardless of delivery mode, characterized their most supported moments similarly: adequate provision of information, decisional inclusion, and emotional support. Lack of support was felt most by UPCD women. Those moments were mostly characterized by being excluded from decision making about their care and lacking emotional support. **Discussion:** Women in all childbirth delivery modes appreciate useful information, decisional inclusion, and emotional support given by a healthcare provider. Women with UPCDs are especially likely to feel their emotional support needs were not met. By taking time to inform women, include them in medical care decisions, and support them emotionally (and in UPCD, to empathize with changes in plans), we can prevent women from enduring negative birth experiences.

*Keywords:*childbirth, patient-centered care, shared decision-making, peripartum period, cesarean delivery

**Women's Psychological Support Needs in Primiparous Childbirth Experience Across Delivery Modes**

Despite the positive nature of bringing a new life into the world, mothers’ post-birth reflections on the experience are often far from satisfying (Khalife‐Ghaderi et al., 2021). Many women experience negative feelings (Aragon et al., 2013), particularly when their birth does not go according to expectations (Mei et al., 2016). In those conditions, a woman may experience a loss of control, decreasing birth satisfaction (Jafari et al., 2017). For example, an unplanned cesarean delivery is especially likely to leave a woman with lower birth satisfaction (Coates et al., 2020). Additionally, if a woman ends up delivering a healthy baby, her negative emotions are often discounted by society (DeGroot & Vik, 2017).

Low birth satisfaction has physical and mental health implications; it can diminish subsequent family well-being, including worsening breastfeeding and maternal-infant bonding outcomes (Sawyer et al., 2013). Furthermore, a dissatisfying birth experience can influence future health-related decision-making, such as opting for an out-of-hospital delivery (Reed & Sharman, 2017; Heyne et al., 2022). At the extreme, a traumatic birth experience, which influences up to 34% of mothers (Delicate, Ayers, & McMullen, 2022) can lead to post-traumatic stress disorder (PTSD, which influences 4% of women (Dikmen Yildiz et al., 2017)). Negative subjective birth experiences are the highest risk factor for birth-related PTSD, followed by having an operative birth (Ayers et al., 2016).

Birth modalities, which vary based on either a woman’s choice or medical considerations, may diverge from what a woman has planned. In this study, we shed a light on cesarean deliveries, and differentiate between planned cesarean delivery (PCD) which involves no maternal or fetal compromise and may be scheduled for a time that suits the woman and maternity services, and unplanned cesarean delivery (UPCD). UPCDs are, by definition, a case where a woman expects to have a vaginal delivery (VD), and ends up with a different, more intrusive and medicalized procedure altogether. Cesarean deliveries are highly prevalent; latest available data (2010–2018) from 154 countries reports that 21.1% of women gave birth by CD (Betran et al., 2021). The World Health Organization (WHO, 2021) estimates that CD rates are on the rise. UCDPs account for around 15% of births (Kim et al. 2020).

Cesarean deliveries, especially UPCD, increase the risk of postpartum depression (Xu et al., 2017) and PTSD (Ayers et al., 2016; Benton et al., 2019; Carter et al., 2022). Women who had a UPCD were more likely to feel disappointed, to feel they had failed, and to report more negative birth experiences, compared with women who had a VD (Coates et al., 2020; Kjerulff & Brubaker, 2018).

The psycho-social nature of the delivery, not just its medical circumstances, influences the women’s response to the event. In one meta-analysis, the strongest correlate for PTSD was experiencing postpartum depression, followed by “negative interactions with medical staff”. In fact, the negative interactions predicted postpartum PTSD more than history of a psychological disorder (Grekin & O'Hara, 2014). A meta-analysis found that trauma can result from a lack of relationship with the healthcare provider, poor communication, or feeling dismissed or out of control (Elmir et al., 2010). Similarly, mothers are more likely to have a traumatic birth experience if health care providers are perceived as lacking in care and compassion (Beck, 2004; Moloney & Gair, 2015). Furthermore, perceiving a loss of control increases the risk of experiencing a traumatic birth (Furuta et al., 2016; Jafari et al., 2017).

Psychosocial support can mitigate negative emotions surrounding childbirth. Birth satisfaction is predicted by emotional support and being included in the decision-making (Miron-Shatz & Konheim-Kalkstein, 2020), and lack of emotional support is associated with more regrets in women with UPCDs (Konheim-Kalkstein & Miron-Shatz, 2019).

While the social sciences literature shows that the psychological experience of birth predicts psychological postpartum health, the medical literature offers little guidance to physicians who aim to be supportive. Given that perception of quality of care and supportive interactions have shown up consistently in the literature as a strong predictor of disappointment, depression, and trauma, the present research aimed to understand what supportive and non-supportive care during delivery looks like, from women’s perspectives, and in their own words.

In Study 1, we reached out to women who had a UPCD as their first and only birth experience. We asked them to identify moments when they felt most and least supported through free response. In Study 2, we broadened the scope of the investigation and tested the generalizability of the findings, by reaching out to samples of women who, for their first and only birth, had an UPCD, a vaginal birth (VD), or a planned cesarean. They responded to a survey developed based on the data from the open-ended inquiry in Study 1.

**Method**

**Study 1**

UPCD can be a challenging experience for women. To better understand the socio-emotional perceptions of their birth experience, 227 women who had an UPCD were surveyed about the moments they felt most and least supported.

***Ethics***

In 2018, institutional review board (IRB) approval from Ono Academic College was secured for this research. No identifying information was collected. Informed consent was implied if subjects continued after reading an introductory paragraph about the study and how the data would be used.

***Participants***

A convenience sample of women was recruited through American community Facebook groups for mothers, as well as the ICAN (International Cesarean Awareness Network) Facebook group. A recruitment post indicated an opportunity to participate in a research project about women’s first and only birth experience, that resulted in a UPCD and live birth four years ago or less. Inclusion criteria were women 18 and older who were planning on having a VD up until labor started but ended up having a UPCD. Women clicked on a link to a Google survey and those who qualified were invited to continue. At the end of the survey, they could enter an email for a US $100 Amazon Gift Card raffle.

Data collection went from February 2018 to March 2018. The 227 women who met the criteria ranged in age from 18-46 years (*M* = 32.18 years (*SD* = 4.72). Women could indicate where they learned of the survey. Most answered “Facebook” but some specified Facebook mothers’ groups from Florida, Minnesota, New York, Massachusetts, Colorado, Maryland, New Jersey, and Virginia. 8% indicated that they learned about the survey from the ICAN group.

***Materials***

In the context of a larger survey, participants answered the following open-ended questions (that were not previously analyzed):

1. Describe when you felt most supported during a challenging moment in your birth experience (if you cannot think of one, write N/A).
2. Describe when you felt least supported during a challenging moment in your birth experience (if you cannot think of one, write N/A).

***Coding***

To code the answers to the two questions, three coders agreed on a coding scheme, which included identifying the type of support given or desired, using the framework developed by Konheim-Kalkstein and Miron-Shatz (2018), in addition to identifying who gave the support, and when the support was provided. The two coders coded separately and then came together to discuss discrepancies, with the third acting as a referee.

**Results**

**Study 1**

Of the 227 women, 153 (67%) identified a moment they felt most supported and 161 (72%) identified a moment they felt least supported.

63% of the most supportive moments and 94% of the least supportive moments explicitly named a healthcare provider as the agent. The three most common times explicitly named during a most supportive moment were: while laboring (32%), the moment it was communicated a cesarean birth was necessary (20%), and unspecified before surgery (18%). The three most common times of least support were: unspecified before surgery (20%), the moment it was communicated a cesarean birth was necessary (19%, e.g., *“When doctor told me I needed a c-section, [doctor]left room and no one would tell me what was going on*”), and while laboring (17%) The next most common time for lack of support was after the birth (14%).

Of the most supportive moments (n = 153), 146 elaborated on the nature of the event and were classified as to the type of support provided (**Table 1).** The most identified element was “emotional support” (31.4% of instances). Emotional support was given in terms of words, physical support, and time to process unexpected changes. The next most common groupings of supportive moments were decisional inclusion (18%) and informational support (18%).

Most women (71.9%, n = 165) identified a moment where they felt least supported; all were classified as to the type of support provided (**Table 2**). Predominantly, least supportive moments involved not being included in decisions (30% of instances). This sometimes involved women feeling a lack of respect for their preferences. For example: “*…. I wish she wrote my birthing plan on something other than a napkin.”*  And: “*I wish they would have listened to my wishes. I didn’t feel like I was in control at all.”*

Women commonly referred to instances where they felt the healthcare providers did not empathize or emotionally support them, and sometimes even hurt their emotions (26.4% of instances). The examples below illustrate this:

*“I was shocked and upset to be admitted to a hospital/induced. When they sent me from the sonogram upstairs to be admitted, I was crying. The nurse there looked at me like I was crazy and couldn’t understand why I was upset.”*

*“The hospital staff was making jokes to one another preparing me for the c-section. Inside jokes while I was worried about my baby. It felt awful”*

In summary, for UPCD women, the most salient support was emotional, informational, or decisional inclusion. For when support was lacking, it was more often lack of decisional inclusion and lack of emotional support (or not just lack but feeling actively dismissed/unsupported). Healthcare providers were involved in the vast majority of most and least supported moments.

**Study 2**

In Study 2, we sought to expand our findings by determining whether the perceptions of women’s experience of healthcare provider support are generalizable across birth modalities or are unique to UPCD women. We used Study 1’s coding scheme to develop our multiple-choice questions for Study 2. We gathered data from three new samples of women with UPCD, VD, and PCD, allowing for comparative analyses, and focusing on negative experiences.

***Ethics***

In 2020, institutional review board (IRB) approval from Ono Academic College was secured for this research. No identifying information was collected. Informed consent was implied if subjects continued after reading an introductory paragraph about the study and how the data would be used.

***Participants***

Three convenience samples were recruited through community Facebook groups for mothers around the United States (e.g., New Moms in Los Angeles, and NYC Moms). Separate recruitment posts indicated an opportunity to participate in a research project about women’s first and only birth experience (37 weeks gestation and above) that occurred up to two years earlier and resulted in a UPCD, VD, or PCD. Other inclusion criteria were women 18 and older who were fluent in English. For UPCD, the woman had to have planned on having a VD up until when the labor began. Women clicked on a link to a Qualtrics survey and those who qualified were invited to continue. At the end of the survey, they could enter an email in a raffle for a US $50 Amazon Gift Card. Each sample was recruited with separate posts targeting women who have had a UPCD, CD, of PCD.

Data was collected in the Fall of 2020. There were no significant age differences between the VD women (*M* = 32.8, *SD* = 5.5) and UPCD women (*M* = 32.1, *SD* = 4.8). However, the PCD women were significantly older by 3-4 years (*M* = 36, *SD* = 6.0). There was no significant difference in educational levels between the groups; in all groups, at least 79% of women had at least a four-year college degree (VD = 83.8%; UPCD = 79%; PCD = 80.3%).

***Materials***

Women responded to multiple-choice questions asking them to characterize the moment their healthcare provider provided them with the most support and least support. The answers were based on our categorization of the free responses women had written in Study 1.

**Results**

In Study 2, women characterized their most supported moment by endorsing characteristics of that moment from various options (**Table 3**). Nearly 15% of UPCD women endorsed “not applicable” as their response (i.e., they were unable to consider a “most supported moment”); 11.8% of VD and 6.5% of PD listed “not applicable” (the proportions were significantly different; χ2(2) = 151.17, *p* < .00001). Across all three participant groups, informational support was the most common characteristic of their most supported moment (VD = 52.1%, PCD = 50.0% and UPCD = 41.0%). Both VD and PCD women endorsed emotional support as the next most common characteristic (34.7% and 34.8% respectively), whereas UPCD endorsed decisional inclusion as the next most common (35.5%). 34.1% of VD women and 30.4% of PCD women characterized their most supported moment as one where they felt included in a decision. 25.7% of UPCD women characterized their most supported moment as one where emotional support was provided. None of these proportions are significantly different, suggesting that regardless of delivery mode, similar characteristics of supportive moments are appreciated.

When asked what their least supported moment was, 41.7% of the VD women and 46.8% of the PCD women endorsed “not applicable”, as opposed to only 20.8% of the UPCD women (**Table 4;** χ2(2) = 21.18, *p* < .0001). Across all groups, the most common characterization of a least supported moment, was a lack of emotional support (UPCD = 35%, VD = 23.4%, PCD = 24.5%). The second most common characterization of lack of support was when women with UPCD perceived being excluded from decisions (27.9%); this was significantly different than the other delivery modes (χ2(2) = 11.49, *p* = .003). Women with UPCD (19.1%) and VD (15.2%) were more likely to characterize their moment as lacking informational support (χ2(2) = 6.10, *p* = .047; compared to PCD = 4.3%), and UPCD women were more likely to characterize a lack of time to process (26.2%), as compared to women with VD (11.6%) and PCD (8.7%; χ2(2) = 15.62, *p* = .0004).

Women were further asked when during their experience emotional support was lacking (**Table 5**), and UPCD women were much more likely to be able to identify such a moment. Whereas only 43% (n = 73) of VD women, and 57% (n = 26) of PCD women identified a moment, 85% (n = 155) of UCPD women identified such a moment, perhaps highlighting a greater need for unmet emotional support (χ2(2) = 62.60, *p* < .00001). For VD women, the top response of a moment where emotional support was lacking was “when laboring” (59%). For UPCD women, the top responses were “when something wasn’t going according to the plan” (47%), “when you realized you were having a cesarean” (47%), “during the cesarean” (45%), and “after the cesarean” (49%).

In summary, the most common characterization across supportive moments tended to be informational, followed by either emotional or decisional, depending on birth modality. On the other hand, when examining least supportive moments, emotional support is what was most likely to be lacking, followed by decisional inclusion for UPCD and VD. Overall, when only analyzing those that could think of a moment (removing N/A responses), there were no significant differences in distribution of answers across all the categories between moments of most support (χ2(8) = 5.46, *p* < .70) and moments of least support (χ2(8) = 7.48, *p* < .49), highlighting that women’s support needs are similar across delivery mode. (

**Discussion**

Childbirth is an event that, for too many women, becomes a negative and disempowering experience (Olza et al., 2018; Murphy & Strong, 2018). The WHO recently recognized a “positive childbirth experience” as a significant end point for childbearing women (Oladapo et al., 2018; WHO, 2018). Understanding how to meet the support needs of women advances this goal.

In this research, we sought to understand women’s experiences during delivery, both through their own words and in a multiple-choice manner. Given the known research on the psychological challenges of UPCD, we sought in Study 1 to better understand what can make women feel more or less supported. We asked women who had a UPCD to describe their most and least supportive moments during childbirth in their own words. In a vast majority of responses, this moment involved their healthcare provider, and the most supportive moments were most likely to be emotional support, decisional inclusion, or informational support. When support was lacking, it was often decisional inclusion, or lack of emotional support. In Study 2, we reached out to women who had a VD, PCD, or UPCD to share their experience through a survey questionnaire about moments of support that involved their healthcare provider, to determine whether our findings generalized to all birth modalities. Our results, from most supported and least supported moments, show that women’s needs converge across modes of delivery and are mainly centered around three themes. These were the need for *emotional support, information,* and *decisional inclusion* (a need that was understandably more crucial for UPCD women). Overall, our results indicate that the nature of the psychological support appreciated is similar across birth modalities, however, women with UPCD are less likely to receive the level of support they need for their challenging birth experience.

Our findings that emotional support is important to childbearing women are consistent with recent studies. A systematic review showed that women emphasize safety and psychosocial wellbeing equally in their birth experience (Downe et al., 2018). Similarly, a Norwegian population survey found that women seek care that focuses on socio-cultural and psychological aspects of childbirth, alongside physical and clinical factors (Vedeler et al., 2022). This aligns with the pivotal place the doctor’s demeanor and relationship with the patient has in healing (Miron-Shatz et al., 2021). Supportive care can help reduce women’s fear of childbirth and promote positive labor outcomes (Jameei-Moghaddam et al., 2021; Baxter, 2020).

Conversely, lack of support is correlated with higher rates of postpartum PTSD (Grekin & O'Hara, 2014; Moloney & Gair, 2015). Negative birth experiences can have far reaching effects, including postpartum depression and PTSD (Dekel et al., 2020) and an impact on the baby’s social-emotional development (Chan et al., 2021).

Decision making during childbirth, regardless of the delivery mode, is challenging in that it requires negotiating the risks of mother and baby, interpreting uncertain diagnostic information, and balancing a patient’s desire for control with the authority of the healthcare provider (Konheim-Kalkstein et al., 2018). Further variables such as time pressure, staff shortages, and medical bureaucracy can obstruct patient-centered communication (Huschke, 2021). In emergencies such as an UPCD, decisional inclusion and emotional support can be particularly difficult for the healthcare team, and fully informing the patient may not be possible.

How then to reconcile time pressure and occasionally imminent danger to mother and newborn, with women’s pressing non-medical needs? Previous work (Konheim-Kalkstein, Miron-Shatz, & Israel, 2018) suggests that supporting women can be achieved through quick interventions that do not obstruct the medical procedure. The salience of a lack of emotional support across delivery modes suggests providers might benefit from guidance in how to address women’s emotional needs during birth and delivery. Providers should be particularly attentive to patients when something is not going according to plan; in a birth with UPCD, this means as the information is communicated that a UPCD is necessary, and after the UPCD, where nearly half of our sample indicated they did not get enough emotional support. This is consistent with research showing that women who have a UPCD are more likely to have a negative birth experience (Grisbrook et al., 2022; Kjerulff & Brubaker, 2018) which may result in increased rates of postpartum depression (Xu et al., 2017) and trauma (Ayers et al., 2016).

Obstetrics has professional guidelines regarding complex medical situations and ethical dilemmas; these enable the obstetric team to provide care for such patients. However, it seems that guidelines of how to provide the psychological support that our study identified as crucial, to laboring women, while taking into account time and medical constraints, are missing. A search through the American College of Obstetricians and Gynecologists (ACOG) clinical management guidelines for Obstetrician-Gynecologist list of titles from January 2014 to December 2022 suggests that no document regarding psychological support of women during childbirth exists. To the best of our knowledge, there is only one document recognizing traumatic birth experiences (ACOG Committee Opinion No. 825, 2021)which recommends strategies to prevent re-traumatization for trauma survivors (. While recognizing that birth trauma exists, and offering tools for dealing with women who have had such trauma and then present for a visit or a repeat delivery, the guidelines lacks tools or recommendations for providing support during birth.

Recent ACOG committee opinions regarding approaches to limit interventions during labor and delivery (ACOG Committee Opinion No. 766, 2019) recommends that women in the latent phase of labor should have the opportunity to engage in shared decision making to create plan for self-caring activities and coping techniques, and that continuous one-to-one emotional support provided by support personnel such as a doula is associated with improved outcomes for women in labor. Yet, also in this document, concrete tools for doing so are lacking, possibly because of their focus on the non-medical aspects of delivery.

Our results indicate that similar guiding principles can used across delivery modes, and, in accordance with previous findings, can both increase birth satisfaction, and decrease the sense of being unsupported during birth. In the end, it is mostly the words a healthcare provider says that will provide the support that can transform the experience into a more satisfying one. Future research could examine how a healthcare provider using specific words might impact experiences. For example, a doctor can empathize, “I know this isn’t going like you imagined and that is probably frustrating…” (emotional support) or a doctor can take a moment to explain that “while we’d really like to follow your birth plan, the reason we recommend X is because of your health” (decisional inclusion) or “Here’s what we are going to do to the safest thing for you and the baby and let me briefly explain the steps involved” (informational support).

Our study has several limitations, some of which we alluded to in the text. First, there is a time gap between the delivery events, and women’s reports thereof: An up-to-four-year gap in Study 1, and an up-to-two-year gap in Study 2. However, the literature indicates that women’s recollections of their birth and delivery experiences remain accurate years after the event (Yawn et al., 1998). Second, we describe women’s delivery experiences solely from their own perspective, so we cannot validate them against an objective measure, or compare them to healthcare professionals’ reports. This limitation notwithstanding, the responses reflect women’s lingering recollections of their birth and delivery, and though these may be somewhat inaccurate, as suggested by the memory-experience gap, they are still what the women are left with when considering their birth. Lastly, our sample came from American Facebook groups. While we collected information on age and education level, we cannot infer how representative the sample is of our population of women from the United States. Further studies should consider how demographics might interact with support needs, and explore how universal these needs are. Future work could also examine how providing training on the psychological support might influence birth satisfaction and even postdelivery mental health outcomes.

In summary, women’s non-medical needs in delivery converge across delivery mode and can be summarized as the need for emotional support, decisional inclusion, and information. Learning about these needs, and how to cater to them, even in the pressing context of delivery, can and should be included in medical guidelines. A short checklist can guide clinicians’ interactions with the women, be streamlined into the care, and help increase birth satisfaction while reducing negative emotions.

**References**

Caring for Patients Who Have Experienced Trauma: ACOG Committee Opinion Summary, Number 825. Obstetrics & Gynecology 137(4):p 757-758, April 2021. | DOI: 10.1097/AOG.0000000000004328

ACOG Committee Opinion No. 766: Approaches to Limit Intervention During Labor and Birth. Obstetrics & Gynecology 133(2):p e164-e173, February 2019. | DOI: 10.1097/AOG.0000000000003074

Aragon, M., Chhoa, E., Dayan, R., Kluftinger, A., Lohn, Z., & Buhler, K. (2013). Perspectives of expectant women and health care providers on birth plans. *Journal of Obstetrics and Gynaecology Canada*, *35*(11), 979-985. [https://doi.org/10.1016/S1701-2163(15)30785-4](https://doi.org/10.1016/S1701-2163%2815%2930785-4)

Ayers, S., Bond, R., Bertullies, S., Wijma, K. (2016). The aetiology of post-traumatic stress following childbirth: A meta-analysis and theoretical framework. *Psychological Medicine, 46*(6), 1121–1134.  <https://doi.org/10.1017/S0033291715002706>

Baxter, J. (2020). An exploration of reasons why some women may leave the birth experience with emotional distress. *British Journal of Midwifery, 28*(1), 24-33. <https://doi.org/10.12968/bjom.2020.28.1.24>

Benton, M., Salter, A., Tape, N., Wilkinson, C., & Turnbull, D. (2019). Women’s psychosocial outcomes following an emergency caesarean section: A systematic literature review. *BMC pregnancy and childbirth*, *19*(1), 1-24.

Betran, A. P., Ye, J., Moller, A. B., Souza, J. P., & Zhang, J. (2021). Trends and projections of caesarean section rates: Global and regional estimates. *BMJ Global Health*, *6*(6), e005671. <http://dx.doi.org/10.1136/bmjgh-2021-005671>

Carter, J., Bick, D., Gallacher, D., & Chang, Y. S. (2022). Mode of birth and development of maternal postnatal post‐traumatic stress disorder: A mixed‐methods systematic review and meta‐analysis. *Birth, 49*, 616-627. <https://doi.org/10.1111/birt.12649>

Chan, M. H., Hauck, Y., Kuliukas, L., & Lewis, L. (2021). Women’s experiences of their involvement around care decisions during a subsequent pregnancy after a previous caesarean birth in Western Australia. *Women and Birth, 34*(5), e442-e450. <https://doi.org/10.1016/j.wombi.2020.09.007>

Coates, D., Thirukumar, P., & Henry, A. (2020). Women’s experiences and satisfaction with having a cesarean birth: An integrative review. *Birth, 47*(2), 169-182. <https://doi.org/10.1111/birt.12478>

Dekel, S., Ein-Dor, T., Dishy, G. A., & Mayopoulos, P. A. (2020). Beyond postpartum depression: Posttraumatic stress-depressive response following childbirth. *Archives of Women's Mental Health, 23*(4), 557-564. <https://doi.org/10.1007/s00737-019-01006-x>

Delicate, A., Ayers, S., & McMullen, S. (2022). Health-care practitioners’ assessment and observations of birth trauma in mothers and partners. *Journal of Reproductive and Infant Psychology, 40*(1), 34-46. <https://doi.org/10.1080/02646838.2020.1788210>

Dikmen-Yildiz, P., Ayers, S., & Phillips, L. (2017). The prevalence of posttraumatic stress disorder in pregnancy and after birth: A systematic review and meta-analysis. *Journal of Affective Disorders*, *208*, 634-645. <https://doi.org/10.1016/j.jad.2016.10.009>

Downe, S., Finlayson, K., Oladapo, O., Bonet, M., & Gülmezoglu, A. M. (2018). What matters to women during childbirth: A systematic qualitative review. *PloS one, 13*(4), e0194906. <https://doi.org/10.1371/journal.pone.0197791>

Furuta, M., Sandall, J., Cooper, D., & Bick, D. (2016). Predictors of birth-related post-traumatic stress symptoms: Secondary analysis of a cohort study. *Archives of Women's Mental Health, 19*(6), 987-999. https://doi.org/10.1007/s00737-016-0639-z

DeGroot, J. M., & Vik, T. A. (2017). Disenfranchised grief following a traumatic birth. *Journal of Loss and Trauma, 22*(4), 346-356. <https://doi.org/10.1080/15325024.2017.1284519>

Gabbe, S., Niebyl, J., Simpson, J., Landon, M., Galan, H., & Jauniaux, E. R., … & Grobman, W. A. (2016). Obstetrics: Normal and problem pregnancies e-book (7th ed.). Elsevier Health Sciences.

Garthus-Niegel, S., Ayers, S., Martini, J., von Soest, T. & Eberhard-Gran, M. (2016). The impact of postpartum post-traumatic stress disorder symptoms on child development: A population-based, 2-year follow-up study. *Psychological Medicine, 47*(1), 161-170. <https://doi.org/10.1017/S003329171600235X>

Grekin, R., & O'Hara, M. W. (2014). Prevalence and risk factors of postpartum posttraumatic stress disorder: A meta-analysis. *Clinical Psychology Review, 34*(5), 389-401. <https://doi.org/10.1016/j.cpr.2014.05.003>

Grisbrook, M. A., Dewey, D., Cuthbert, C., McDonald, S., Ntanda, H., Giesbrecht, G. F., & Letourneau, N. (2022). Associations among caesarean section birth, post-traumatic stress, and postpartum depression symptoms. *International Journal of Environmental Research and Public Health, 19*(8), 4900. <https://doi.org/10.3390/ijerph19084900>

Gu, J., Karmakar-Hore, S., Hogan, M. E., Azzam, H. M., Barrett, J. F., Brown, A., ... & Gurevich, Y. (2020). Examining cesarean section rates in Canada using the modified Robson classification. *Journal of Obstetrics and Gynaecology Canada, 42*(6), 757-765. <https://doi.org/10.1016/j.jogc.2019.09.009>

Hadizadeh-Talasaz, F., Ghoreyshi, F., Mohammadzadeh, F., & Rahmani, R. (2021). Effect of shared decision making on mode of delivery and decisional conflict and regret in pregnant women with previous cesarean section: A randomized clinical trial. *BMC Pregnancy and Childbirth, 21*(1), 1-10. https://doi.org/10.1186/s12884-021-03615-w

Heyne, C. S., Kazmierczak, M., Souday, R., Horesh, D., Lambregtse-van den Berg, M., Weigl, T., ... & Garthus-Niegel, S. (2022). Prevalence and risk factors of birth-related posttraumatic stress among parents: A comparative systematic review and meta-analysis. *Clinical Psychology Review, 94*, 102157. <https://doi.org/10.1016/j.cpr.2022.102157>

Huffhines, L., Coe, J. L., Busuito, A., Seifer, R., & Parade, S. H. (2022). Understanding links between maternal perinatal posttraumatic stress symptoms and infant socioemotional and physical health. *Infant Mental Health Journal*. <https://doi.org/10.1002/imhj.21985>

Jafari, E., Mohebbi, P., & Mazloomzadeh, S. (2017). Factors related to women's childbirth satisfaction in physiologic and routine childbirth groups. *Iranian Journal of Nursing and Midwifery Research, 22*(3), 219.

Jameei-Moghaddam, M., & Mirghafourvand, M. (2021). The relationship between women’s satisfaction with personnel’s support during labor, fear of childbirth, and duration of labor stages. *Shiraz E-Medical Journal*, (In Press).

Khalife‐Ghaderi, F., Amiri‐Farahani, L., Haghani, S., & Hasanpoor‐Azghady, S. B. (2021). Examining the experience of childbirth and its predictors among women who have recently given birth. *Nursing Open, 8*(1), 63-71. <https://doi.org/10.1002/nop2.603>

Kim, S. Y., Park, J. Y., Bak, S. E., Jang, Y. R., Wie, J. H., Ko, H. S., ... & Shin, J. C. (2020). Effect of maternal age on emergency cesarean section. *The Journal of Maternal-Fetal & Neonatal Medicine*, *33*(23), 3969-3976.

Kjerulff, K. H., & Brubaker, L. H. (2018). New mothers’ feelings of disappointment and failure after cesarean delivery. *Birth, 45*(1), 19-27. <https://doi.org/10.1111/birt.12315>

Konheim-Kalkstein, Y. L., Miron-Shatz, T., & Israel, L. J. (2018). How women evaluate birth challenges: analysis of web-based birth stories. *JMIR Pediatrics and Parenting, 1*(2), e12206.

Konheim-Kalkstein, Y. L., & Miron-Shatz, T. (2019). “If only I had . . .”: Regrets from women with an unplanned cesarean delivery. *Journal of Health Psychology, 26*(11), 1939-1950. https://doi.org/10.1177/1359105319891543

McKenzie-McHarg, K., Ayers, S., Ford, E., Horsch, A., Jomeen, J., Sawyer, A., ... & Slade, P. (2015). Post-traumatic stress disorder following childbirth: An update of current issues and recommendations for future research. *Journal of Reproductive and Infant Psychology, 33*(3), 219-237. <https://doi.org/10.1080/02646838.2015.1031646>

Mei, J. Y., Afshar, Y., Gregory, K. D., Kilpatrick, S. J., & Esakoff, T. F. (2016). Birth plans: What matters for birth experience satisfaction. *Birth, 43*(2), 144-150. <https://doi.org/10.1111/birt.12226>

Miron-Shatz, T., Stone, A., & Kahneman, D. (2009). Memories of yesterday’s emotions: Does the valence of experience affect the memory-experience gap?. *Emotion*, *9*(6), 885. [https://doi.org/10.1037/a0017823](https://psycnet.apa.org/doi/10.1037/a0017823)

Miron-Shatz, T., & Konheim-Kalkstein, Y. L. (2020). Preparedness and support, not personality, predict satisfaction in unplanned caesarean births. *Journal of Obstetrics and Gynaecology, 40*(2), 171-175. <https://doi.org/10.1080/01443615.2019.1606174>

Miron-Shatz, T. (2021). *Your life depends on it: What you can do to make better choices about your health*. Basic Books.

Murphy, H., & Strong, J. (2018). Just another ordinary bad birth? A narrative analysis of first time mothers' traumatic birth experiences. *Health Care for Women International, 39*(6), 619-643. <https://doi.org/10.1080/07399332.2018.1442838>

Nagle, U., Naughton, S., Ayers, S., Cooley, S., Duffy, R. M., & Dikmen-Yildiz, P. (2022). A survey of perceived traumatic birth experiences in an Irish maternity sample–prevalence, risk factors and follow up. *Midwifery, 113*, 103419. <https://doi.org/10.1016/j.midw.2022.103419>

Nakić Radoš, S., Matijaš, M., Kuhar, L., Anđelinović, M., & Ayers, S. (2020). Measuring and conceptualizing PTSD following childbirth: Validation of the city birth trauma scale. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(2), 147. [https://doi.org/10.1037/tra0000501](https://psycnet.apa.org/doi/10.1037/tra0000501)

Oladapo, O. T., Tunçalp, Ö., Bonet, M., Lawrie, T. A., Portela, A., Downe, S., & Gülmezoglu, A. M. (2018). WHO model of intrapartum care for a positive childbirth experience: Transforming care of women and babies for improved health and wellbeing. *Bjog, 125*(8), 918. <https://doi.org/10.1111/1471-0528.15237>

Olza, I., Leahy-Warren, P., Benyamini, Y., Kazmierczak, M., Karlsdottir, S. I., Spyridou, A., ... & Nieuwenhuijze, M. J. (2018). Women’s psychological experiences of physiological childbirth: A meta-synthesis. BMJ open, 8(10), e020347. <http://dx.doi.org/10.1136/bmjopen-2017-020347>

Reed, R., Sharman, R., & Inglis, C. (2017, January 10). Women's descriptions of childbirth trauma relating to care provider actions and interactions. *BMC Pregnancy and Childbirth 17*(21). <https://doi.org/10.1186/s12884-016-1197-0>

Robson, M. S. (2001). Can we reduce the caesarean section rate? *Best Practice & Research Clinical Obstetrics & Gynaecology, 15*(1), 179-194. <https://doi.org/10.1053/beog.2000.0156>

Sawyer, A., Ayers, S., Abbott, J., Gyte, G., Rabe, H., & Duley, L. (2013). Measures of satisfaction with care during labour and birth: A comparative review. *BMC Pregnancy and Childbirth, 13*(1), 1-10. https://doi.org/10.1186/1471-2393-13-108

Staneva, A. (2013). Childbirth in a technocratic age: the documentation of women’s expectations and experiences. *Journal of Reproductive and Infant Psychology, 31*(3), 323-324. <https://doi.org/10.1080/02646838.2013.784960>

Simpson, M., & Catling, C. (2016). Understanding psychological traumatic birth experiences: A literature review. *Women and Birth, 29*(3), 203-207. <https://doi.org/10.1016/j.wombi.2015.10.009>

Vedeler, C., Nilsen, A. B. V., Blix, E., Downe, S., & Eri, T. S. (2022). What women emphasise as important aspects of care in childbirth–an online survey. *BJOG: An International Journal of Obstetrics & Gynaecology, 129*(4), 647-655. <https://doi.org/10.1111/1471-0528.16926>

Villarmea, S., & Kelly, B. (2020). Barriers to establishing shared decision‐making in childbirth: Unveiling epistemic stereotypes about women in labour. *Journal of Evaluation in Clinical Practice, 26*(2), 515-519.  <https://doi.org/10.1111/jep.13375>

World Health Organization. (2018, January). *Quality, equity, dignity: The network to improve quality of care for maternal, newborn and child health: Strategic objectives*. World Health Organization. https://www.who.int/publications/i/item/9789241513951

World Health Organization. (2021, June 21). *Caesarean section rates continue to rise, amid growing inequalities in access.* World Health Organization. <https://www.who.int/news/item/16-06-2021-caesarean-section-rates-continue-to-rise-amid-growing-inequalities-in-access>

Xu, H., Ding, Y., Ma, Y., Xin, X., & Zhang, D. (2017). Cesarean section and risk of postpartum depression: A meta-analysis. *Journal of Psychosomatic Research, 97*, 118-126. <https://doi.org/10.1016/j.jpsychores.2017.04.016>

Yawn, B. P., Suman, V. J., & Jacobsen, S. J. (1998). Maternal recall of distant pregnancy events. *Journal of Clinical Epidemiology*, *51*(5), 399-405. [https://doi.org/10.1016/S0895-4356(97)00304-1](https://doi.org/10.1016/S0895-4356%2897%2900304-1)

Zhang, J. W., Branch, W., Hoffman, M., De Jonge, A., Li, S. H., Troendle, J., & Zhang, J. (2018). In which groups of pregnant women can the caesarean delivery rate likely be reduced safely in the USA? A multicentre cross-sectional study. *BMJ Open, 8*(8), e021670. https://doi.org/10.1136/bmjopen-2018-021670

**Table 1**

*Most Supportive Moments: Nature of supporting behaviors*

|  |  |
| --- | --- |
| Emotional – wordsn = 3725% | “When my OB shared ‘we need to get her out’ it felt like it was empowering even though there was little to be done. It made me feel like ‘okay- here we go’.” |
| Decisional inclusionn = 2718% | “When the doctor told me it was my choice as to how to proceed (i.e. continue labor or go ahead with c section)” |
| Informational supportn = 2618% | “I was in labor for more than 30 hours. I was not only exhausted but anxious at that point. At almost 40 hours of labor my husband, the doula and the doctors kindly explained to me that we have done all that they could to help with dilation (I never went pass 2cm) and that the baby had poop inside and was already too long without amniotic liquid. Everyone knew I didn't want a C-section so they took the time to answer any questions I had and walked me through the process kindly and slowly.”“My OB drove in on during the middle of the night after 30 hours of labor for my emergency c-section. Before the surgery, he held my hands and asked if I was okay and explained what was happening and how I might feel as different things happened in the surgery. He made me feel very heard and considered and valued by taking those moments for just he and I to connect before the surgery.” |
| Medical support n = 1510% | “My daughter’s heart rate abruptly slowed and an entire team of nurses came in to monitor her, adjust me, and administer meds ASAP. It was scary but I knew that everyone was to help- and fast.” |
| Practical support n = 139% | “When I was in blinding pain and my doula caught me when I nearly fell over.” |
| Emotional – physical touchn = 107% | “When the doctor told me we would have to do a c-section because my baby was breech (at 32 weeks 5 days), the doctor was holding one hand and the midwife was holding my other hand. I really appreciated that.” |
| Emotional – time to processn = 96% | “When the Dr told me my daughter was too large to drop into my pelvis and I would not be able to deliver vaginally. She was very clear, but still gave me time to talk it over with my husband and get used to the idea.” |
| Advocating for mothern = 96% | “After my c section, my nurses were very proactive and advocated for me to nurse as soon as possible after delivery. They kicked out my excited family and promoted my wishes without me having to ask.”“Nurses went against doctor to cut an aggressive pitocin dosage” |

**Note:** A given event can be categorized in more than one way. n = 153 women identified a most supportive moment. Of them, n = 146 described the nature of the moment. They constitute the number from which we calculated percentages.

**Table 2**

*Least Supportive Moments: Nature of unsupportive behaviors.*

|  |  |
| --- | --- |
| Not included in decisionn = 4930% | *“When the doctor took my family out in the hallway and apparently had a 20 min conversation with them..... WITHOUT ME! and essentially made everyone go against my wishes making me feel like I was making uneducated decisions. It’s hard to emotionally labor when you feel everyone is against you.”* |
| Lack of emotional support n = 4326% | *“A head nurse came in and told me I wasn’t pushing hard enough after I had been pushing for 3 and a half hours. She was rude and made me feel like a failure. Meanwhile my child’s head was stuck.”* |
| Lack of general support n = 3622% | *“I was induced; my doula cancelled on me 6 hours before my scheduled induction. The next night when I was in hard active labor after my water broke and called her back up doula, she said she was on her way. After an hour she still wasn’t there my husband called to see what was the hold up and she told him that one of her clients went into labor so we weren’t her priority and we were on our own. Hearing that was probably the moment I felt least supported.”* |
| Problem with medical support n = 2716% | *“Not being able to get pain medication right away, to ease the pain so that I could rest up.”* |
| Lack of informational support n = 2314% | *“When no one would tell me why I couldn’t see my baby.”* |
| Lack of practical support n = 85% | *“I had to hoist my butt in the air, and nobody covered my bottom for ten of the longest seconds on Earth”"* |

**Note:** A given event can be categorized in more than one way; n **=** 165 women identified a moment where they felt least supported. Lack of general support was a category that indicated someone was unavailable (or it wasn’t specified what was missing).

**Table 3**

*Characterizations of Moments of Most Support*

|  |  |  |  |
| --- | --- | --- | --- |
| Think of the moment your healthcare provider most provided you with support. In that moment, what was the support? (check all that apply)  | Vaginal Delivery | Unplanned Cesarean Delivery | Planned Cesarean Delivery |
|  | *%* | *n=167* | *%* | *n=183* | *%* | *n=46* |
| Including you in a decision or giving you options | 34.1 | 57 | 35.5 | 65 | 30.4 | 14 |
| Explaining something / giving you information | 52.1 | 87 | 41.0 | 75 | 50 | 23 |
| Empathizing/emotionally supporting you | 34.7 | 58 | 25.7 | 47 | 34.8 | 16 |
| Something medical | 18.6 | 31 | 15.8 | 29 | 26.1 | 12 |
| Giving you time to process | 18.6 | 31 | 21.9 | 40 | 23.9 | 11 |
| Not Applicable | 11.4 | 19 | 14.8 | 27 | 6.5 | 3 |

**Table 4**

*Characterizations of Moments of Least Support (****pg. 14)***

|  |  |  |  |
| --- | --- | --- | --- |
| Think of the moment where your healthcare provider LEAST provided you with support. In that moment, what was the support that was missing (check all that apply | Vaginal Delivery | Unplanned Cesarean Delivery | Planned Cesarean Delivery |
|  | *%* | *n= 164* | *%* | *n=183* | *%* | *n=46* |
| Including you in a decision or giving you options | 16.5 | 27 | 27.9 | 51 | 8.7 | 4 |
| Explaining something / giving you information | 15.2 | 25 | 19.1 | 35 | 4.3 | 2 |
| Empathizing/emotionally supporting you | 24.4 | 40 | 35.0 | 64 | 23.9 | 11 |
| Something medical | 10.4 | 17 | 12.0 | 22 | 8.7 | 4 |
| Giving you time to process | 11.6 | 19 | 26.2 | 48 | 8.7 | 4 |
| Not Applicable | 41.5 | 68 | 20.8 | 38 | 45.7 | 21 |

**Table 5**

*Perceptions of when emotional support was lacking during the birth experience*

|  |  |  |  |
| --- | --- | --- | --- |
| During what moments of labor and delivery did you not get enough emotional support? | Vaginal Delivery(44.5% identified) | Unplanned Cesarean Delivery(85% identified) | Planned Cesarean Delivery(56.5% identified) |
|  | *%* | *n = 73* | *%* | *n=155* | *%* | *n= 26* |
| Laboring through contractions | 59.9 | 37  | 32.9  | 51 | 21.4 | 6 |
|  Pushing | 27.7 | 18 | 11 | 17 | N/A | N/A |
| When something wasn’t going according to plan | 27.7 | 18 | 46.5 | 72 | 25 | 7 |
| When you realized you were having a cesarean | N/A | N/A | 46.5 | 72 | N/A | N/A |
| During the cesarean | N/A | N/A | 44.5 | 69 | 21.4 | 6 |
| After the cesarean | N/A | N/A | 49 | 76 | 25 | 7 |