

Migrant Women's C-Section Decision-Making Experiences in Edmonton, Alberta

by

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## **Abstract**

**Background:** Globally caesarean section (C-section) rates are exceeding recommended ranges, placing women at higher risk for complications. Evidence suggests migrant women have higher C-section rates compared to Canadian-born women. Communication barriers including the lack of ability to negotiate have been cited as potential contributing factors. This leads us to question the degree to which women, especially migrants participate in decision-making. Moreover, the complexities of patient-provider interactions have yet to be explored thoroughly in migrant populations, especially in the context of labour and delivery. Given this, our study aimed to understand: (i) to what extent do migrant women participate in both planned C-section decision-making and decisions during labour and delivery, including emergency C-sections and (ii) whether these experiences differ from that of Canadian-born women.

**Methods:** A qualitative study using a focused ethnographic approach was conducted at a teaching hospital in Edmonton over a ten-month period. Migrant (N=64) and Canadian-born women (N=27) who had a higher risk of undergoing a C-section were included. Data were collected through observation of prenatal appointments, labour and delivery observations and postpartum in-depth interviews. Written informed consent was obtained from all participants and ethics approval was received from the University of Alberta.

**Results:** Our findings revealed the planned C-section decision-making process and participation experiences during labour and delivery were similar between both groups of women. Migrant and Canadian-born women were the primary decisions-makers for most planned C-sections. While both groups' decisions were based on medical factors, socio-cultural factors such as the lack of social support had a larger effect on migrant women's decisions. Specifically, a group of

migrant women chose to have planned C-sections in order to plan their time away from work, arrange childcare and overcome their lack of support.

Within the context of labour and delivery, participation experiences including barriers faced, were found to be similar between both migrant and Canadian-born women. Power imbalances prevented both groups from participating in decision-making. These included: the institutional authority of providers, lack of opportunity to participate, limited sharing of information and communication barriers specific to migrant women. However, ‘expert patients’ consisting of migrant and Canadian-born women maneuvered and overcame these power imbalances due to privileged knowledge of obstetrical interventions available and learned ability to exercise their patient rights.

**Conclusions:** In order to support both migrant and Canadian-born women’s participation in labour and delivery decision-making, we recommend further training of healthcare providers to actively inform, and involve women. Improved provision of information on obstetrical care and patient rights will be important to ensure patients are equipped to engage in conversations with providers. Furthermore, there is a need to understand and fulfill the underlying socio-cultural needs which may inadvertently be contributing to the higher C-section rates experienced by migrant women in Canada.

**Preface**

This thesis is an original work by Priatharsini Sivananthajothy. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “ Exploring Differential Rates of Caesarean Sections in Newcomer Women in Edmonton, Alberta”, No.Pro00052137, 2/3/2015.

**Dedication**

For *Amma*, and her resilience.

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## **Chapter 1: Manuscript #1**

### **Who Makes the Call? A Critical Interpretive Synthesis of the Literature on Caesarean Section Decision-Making**

#### **ABSTRACT**

Given the rapidly rising global C-section rates, it is unclear whether women or physicians are the driving force behind these trends. A critical interpretive synthesis was conducted to understand women's role in the C-section decision-making process, and the actors involved. Ninety-two articles were identified using three databases. Our review reveals women had a larger role in planned C-section decisions, compared to emergency C-sections. Providers had multiple roles including providing information, influencing women's decisions through recommendations and sometimes even impeded women's participation. Providers were also central to identifying and proceeding with a C-section based on medical risk, including instances of emergency C-sections.

#### **INTRODUCTION**

C-sections, a surgical procedure performed by obstetricians, are used to deliver a fetus. Although developed to address medical emergencies, they have become a common practice not necessarily related to medical needs. The literature suggests 10-15% of births need to be delivered by C-section for safe childbirth (1). However, worldwide C-section rates have been rising. Although increased use of C-section deliveries has been documented for several decades, this trend continues to be of concern in the present day. In the United States, C-section rates increased from 4.5% to 32.8% between 1965 and 2011 (2,3). In Canada, C-section rates rose from 17.6% in 1995 to 27.9% in 2015 (4,5). While these periods span significant timeframes, C-section rates in the UK rose from 22% to 28% in the last 15 years alone between 2001 and 2017 (6,7).

Although C-sections are life-saving technology, they are not without risks. Emergency C-sections place mothers at a higher risk for complications including pelvic infection and thrombosis/embolism compared to elective C-sections (8,9). Planned C-sections increase the risk of maternal morbidity compared to vaginal deliveries, including increased postpartum risks of

cardiac arrest, hysterectomy, major puerperal infection along with higher risk of staying longer in the hospital and re-hospitalization in the first 30 days postpartum (10,11). A previous C-section also increases the risk of placenta previa, placental abruption, placenta accrete and uterine rupture (12-15). In infants, C-section births are associated with chronic childhood diseases such as allergies, asthma, obesity, type 1 diabetes as well as neonatal asphyxia (16-20). Given the number of risks for maternal and fetal health, the growing rates of C-sections emerge as a significant issue of concern.

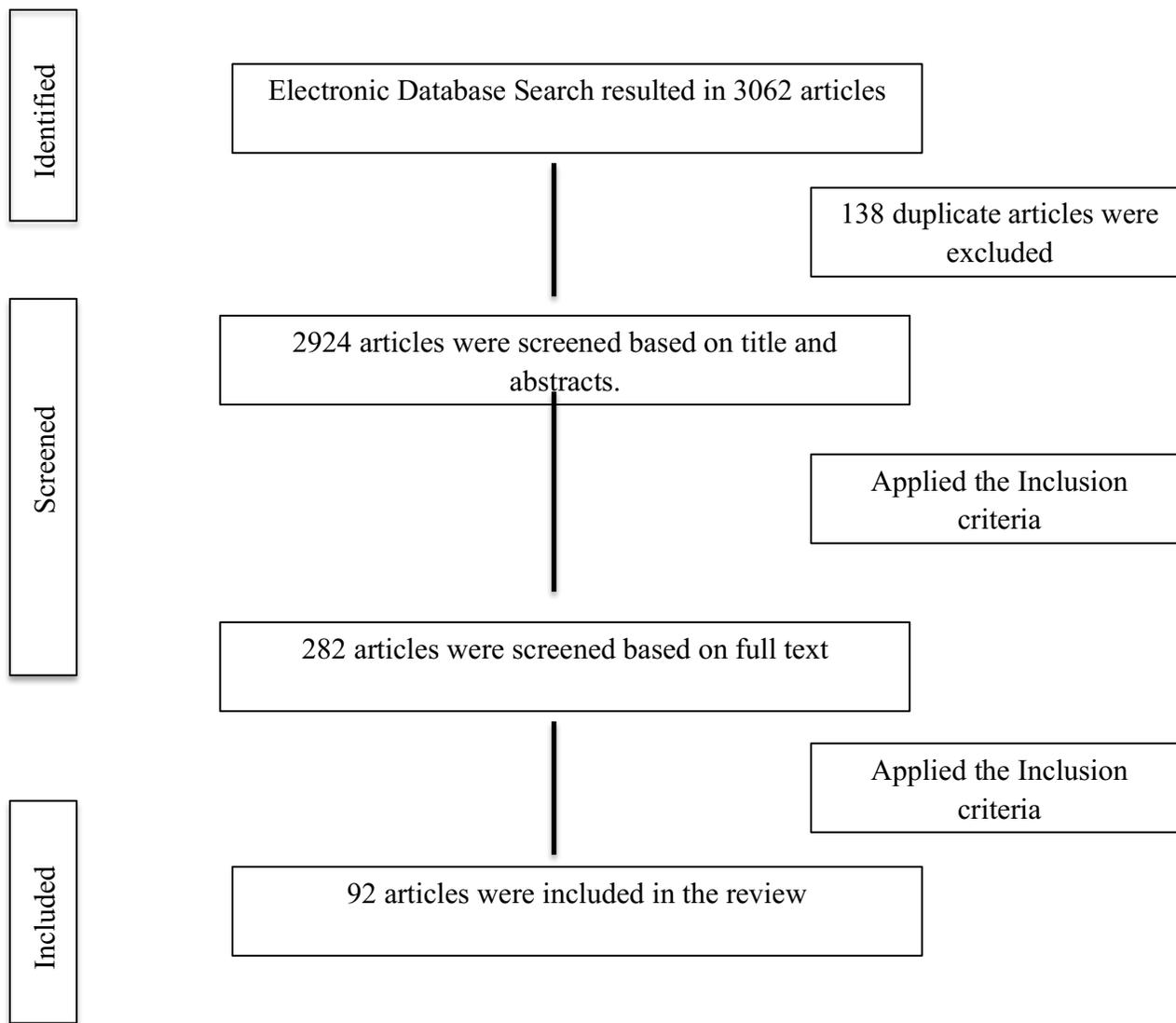
The current literature is unclear as to what is leading to the high C-section rates. Two narratives continue to dominate the C-section discourse. One body of literature suggests physicians and health systems are driving the high rates. A number of studies have reported that although only a small percentage of patients prefer a C-section, a large proportion of these women still deliver by C-section raising the concern of unwanted C-sections (21,22). A multi-method study of private maternity services in Chile revealed that obstetricians providing private services resorted to elective C-sections in order to meet the demands of their complex multi-site work schedules and the need to provide personalized care to their private patients (22). Kabakian-Khasholian (23) suggest inadequate training to conduct operative vaginal deliveries, lack of unified national standards and guidelines for obstetric care, the lack of an audit system to control unnecessary C-sections, and the lack of coverage of pain relief for vaginal births contribute to high C-section rates (23). However, in an opposing narrative, another body of literature asserts that it is women who are the driving force of escalating C-section rates (24-27). Reasons cited for women's preferences range from perceiving C-sections as the 'easy way out' due to speed of delivery and ability to plan the exact date of birth, to fear of pain during vaginal births and previous negative birth experiences (28-31). The available evidence on C-section decision-making presents a complex picture, which does not clearly delineate between both women's and providers' contributions to rising C-section rates. Specifically missing in this discourse is a discussion on the roles of physicians and women in making the decision to deliver by C-section and, importantly who makes the final decision. The aim of the present article, therefore, is to review and critically interpret the published literature on women's engagement in the C-section decision-making process, with a focus on the primary decision-maker and the actors involved.

## **METHODS**

We conducted a comprehensive literature search using the following major electronic databases: Web of Science, MEDLINE and CINAHL. We evaluated articles published between January 1995 and April 2018. The search terms used were “decision\*” OR “decision making” OR “decision-making” with “cesarean section” OR “caesarean section” OR c-section\* OR “c section” OR “Caesarean sections” or “Cesarean section”. Details of our inclusion and exclusion criteria are presented in Table 1. In the first stage, we screened the titles and abstracts of 2924 citations. A total of 282 potentially eligible studies were selected for full-text review. Of these, 92 articles met the inclusion criteria and were included in this review (Figure 1).

**Table 1: Inclusion and Exclusion Criteria for Review of Literature**

<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
Papers published in the English language	Non-English language
Peer reviewed papers based on original data	Non primary research and non-peer reviewed publications (reviews, conference proceedings, meeting abstracts, letters, commentaries, editorial material, news items, unpublished research papers or theses/dissertations)
Papers focused on quantitatively and qualitatively exploring C-section decisions, decision-makers and the process of decision-making, regardless of the final mode of delivery	Data does not focus on C-section decision-making or solely focuses on reasons/factors/medical indications for C-sections
Papers focused on pregnant women for whom C-section was a potential mode of delivery or the perspectives of providers on providing C-sections	Papers focused on mixed populations including pregnant women and non-pregnant women



**Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) flow diagram of the article identification, and screening process for the review of the literature.**

Data from the selected articles were abstracted and charted in Microsoft Excel 2011 under the following headings: Author(s), Year of Publication, Name of Journal, Title, Objectives of the Study, Study setting, Context of decisions including type of C-section assessed, Description of participants, and primary results including decision-makers.

A critical interpretive synthesis was used to inductively analyze and interpret the literature. This approach allows for the development of an argument by critically integrating evidence from across the studies in the review (32). A critical interpretive analysis also allows for the integration of both quantitative and qualitative data findings (32). Given that the current discourse on C-section decision-making offers two largely opposing views on the roles of providers and women, the critical interpretive analysis allows for the synthesis of a narrative which considers these complexities.

### ***Description of the Studies***

The 92 studies spanned over 25 countries, two Internet blog sites and two Internet surveys. Sixty-nine studies focused on women's perspectives of C-section decision-making while 30 studies explored healthcare providers' views, including obstetricians, midwives, and nurses, with some studies focusing on perspectives of both patients and providers. Only two Swedish studies solely explored fathers' engagement in the C-section decision-making process. Fourteen studies focused solely on C-section deliveries by maternal request in the absence of medical indication. Table 2 provides a detailed description of the studies included in the review.

### **FINDINGS**

Overall, our analysis suggests that the primary decision-maker and the role of women and physicians in decision-making vary according to the underlying reason for the C-section. The literature broadly categorized operative births as planned and emergency C-sections. By in large, women played a larger role in planned C-sections compared to emergency C-sections. Within the planned category, C-sections fall into three major categories: repeat C-section after a previous history of C-sections, C-sections for breech presentation, and C-sections upon maternal request in the absence of medical indication. A number of studies did not specify whether they reported on planned or emergency C-sections, or presented data on both types of C-sections combined. We pooled these studies into a separate category titled 'C-section for unspecified reasons' in order to separately analyze the data. Below we describe who made the decisions, notably the roles of women and providers.

### ***Planned C-sections***

Planned C-sections were described as operative deliveries in which the decision was made before the onset of labour. These decisions were made during pre-natal appointments when medical circumstances, including a previous C-section, breech presentation as well as maternal preferences, dictated the decisions for a cesarean delivery. Sixty-seven studies focusing on planned C-sections showed that both mothers and providers were engaged in the decision-making; however, significant variations emerged in the degree of involvement based on the context of the delivery.

#### *Mothers as decision-makers*

Overall, our review shows that women were frequently engaged in planned C-section decisions, and in 15 studies, women were the primary decision-makers (33-49). For example, 48% of women in Australia reported making the final decision to deliver by C-section, while another 45% felt they had been consulted in the process (33). The degree of women's involvement depended on the reason for the planned C-section decision, with participation being significantly high for C-sections on maternal request. As per the definition, women were found to be the primary decision-makers for C-sections requested in the absence of medical indication (35-39,46,48). However, one study also found husbands to actively contribute and even make the final decision to pursue an elective C-section (50). Our review shows that despite healthcare providers insistence that maternal requests for C-section by patients, especially by private patients, are a reason for high C-section rates, only a small number of women actually requested elective C-sections (51-53). In a cross-sectional study by Atan (54) less than 10% of the participating women requested an elective C-section (54). Similar findings were also reported by studies conducted in Turkey, England and Australia (46,55,56).

Women were also involved in the mode of delivery decisions after a previous C-section or in breech presentation. In a number of studies, women were seen as the primary decision-makers, or to have at least had their wishes taken into account (40-47). In these instances, women's preferences were recorded and only further discussed if and when complications occurred (44). One study, however highlighted that a larger proportion of women who had a C-section reported to be the final decision-maker, compared to those who had a vaginal breech

delivery ( $p < 0.001$ ) (47). Not all women, however, were aware of the delivery options after a previous C-section birth or that the mode of delivery decision would be their choice. While some women knew of the choices and expressed their preferences to the doctor at the outset, others only became aware of the alternatives when presented with options by their providers during their pregnancy (44,49,57,58). A study in Scotland reported women feeling surprised when they learnt that they had the final say and faced little resistance from providers (49).

Despite most studies describing women as the primary decision-makers for planned C-sections, especially after a previous C-section, a few studies found women wanted a larger role and often faced difficulties in participating and obtaining the mode of delivery they desired (59-63). For these women, the presentation of choice was perceived to be illusory since they felt that providers' preferences on mode of delivery, restrictive hospital policies and clinical reasons ultimately determined the type of birth (44,49,61,62,64,65,66,67). Providers often had their own personal preferences on mode of delivery, which were subtly impressed upon women (both directly and indirectly) and thereby, constrained mothers' roles in decision-making (41,44,49,62,65,67). Additionally, some women had to cross multiple institutional barriers when they sought a mode of delivery that was against hospital guidelines. This included, for example, overcoming an institutional culture which either promoted a VBAC or a planned C-section, and having to repeatedly justify their preferences during multiple consultations with various providers (61,62,66). Similarly, a study in France on breech presentation mode of delivery found only 12% of C-sections were due to mothers' decisions, while 44% of C-sections had been conducted in accordance with hospital policy (68). Although women reported being the primary decision-makers of planned C-sections in a number of studies, this was often not without facing multiple barriers.

### *Varying Roles of Providers*

Overall, the literature suggests that despite the increasing role of women in C-section decision-making, providers continue to play a large and influential role in planned C-section deliveries. For example, although not limited to planned C-sections, a cross-sectional survey in Turkey found that 90% of C-sections were decided by providers (54). Similar findings were reported by Kisa (55), where physicians decided to proceed with C-sections 83% of the time,

highlighting the important role of providers when selecting the mode of delivery (55). However, the exact role of the providers varied by the reason for the C-sections. In our review, providers role in decision-making can be classified into three categories: 1) supporters and information providers; 2) advisors and 3) primary decision-makers.

*Providers as Supporters and Information Providers:*

Providers were found to play a supportive role in the decisions for C-section demands by women in the absence of medical indication, breech presentations and history of previous C-sections. Provider support was most varied for C-sections in the absence of medical indication (69-77). In Turkey, a cross-sectional survey of obstetricians found that 53% of respondents stated they would perform a patient-requested C-section on a woman with a normal uncomplicated pregnancy (70). In contrast, in Denmark 56% of obstetricians did not believe women had the right to choose an elective C-section in the absence of medical indication (71). There was also some variation in the level of support by type of provider, with midwives being least likely to support women's requests (69,78).

Despite this variation, studies showed that most physicians readily complied with women's requests and some even encouraged women to pursue their choices (46,50,73,79,80). Others ensured there was an informed consent process and women were fully informed about the risks and benefits of both C-section and vaginal delivery before they made the final decision (72,74, 75). Some providers reported performing C-sections at women's request in order to avoid litigation, because patients insisted strongly or in a few cases, not to be held responsible for ano-rectal trauma that might occur (70,72,74,79,81). Others, however simply agreed to the request without inquiring about the reasons for women's choices (80). These providers justified their compliance with patients' requests in terms of their support for patient autonomy (75,78,79). A small yet significant number of obstetricians believed every women should have the right to choose their mode of delivery, with others stating every women should have the right to request a C-section as a mode of delivery (69,70,82). Furthermore, there is some evidence that some providers actually believed that a C-section was a better mode of delivery. Ouyang (83) and Bagheri (82), reported that Chinese and Iranian healthcare providers, including obstetricians,

midwives and nurses, preferred or even chose elective C-sections for themselves in the absence of any clinical indication (82,83).

Clinicians' who cared for women with breech presentation or with a history of previous C-section echoed similar sentiments on women's right to choose. These providers also stressed the importance of women taking part in decision-making (44,49,57,65,67,84). Rather than pushing for a specific mode of delivery, these clinicians were inclined to ensure women felt supported, and made informed choices (65, 67,84, 85). Healthcare professionals provided information about the modes of delivery, and their risks and benefits without favoring either choice (40,44,49,57,62,65,67,86-90). It is interesting to note that although most providers emphasized the importance of offering women choices, some providers revealed that they merely used this approach to transfer the responsibility of the decision-making to the patient, relieving them of any risk of subsequent litigation (91).

#### *Providers as advisors*

Regardless of their role in decision-making, our review found that women continued to rely upon and carefully consider recommendations made by providers, both obstetricians and midwives (40,42,44,45,47,49,57, 58,62,64,65,80,87,89,92-96). Through these recommendations and advice, providers' directly and indirectly influenced women's decisions. According to Fenwick (80), this role enabled providers to indirectly reinforce and validate women's decisions to have a C-section on demand in the absence of a medical indication (80). However in medically indicated situations, such as deciding between a trial of labour or a repeat C-section because of a previous history of C-sections, providers' influences were more direct in pushing for a specific mode of delivery (40,42,44,49,57,58,62,64,92,93,95,97,98). Specifically amongst women who had repeat C-section, providers were found to have had significant roles in pushing women towards such mode of delivery (40,42, 45, 64,65,92,96). These C-section recommendations did not go unnoticed. Providers who were known to be supportive of normal vaginal deliveries were more trusted by women (65). Interestingly, the providers viewed their influence more benignly, labeling it as 'mutualistic' decisions jointly negotiated by women and healthcare professionals (91). However, according to Kamal (91), this joint approach was deceptive as providers used the opportunity to direct women towards the professionals' preferred

mode of delivery (91).

### *Providers as primary decision-makers*

A small number of studies indicated providers made the final decision and even resisted women's preferences around mode of delivery (34,44,58,61,64,66,74,95,99-103). Providers were often the primary decision-makers when proceeding with repeat C-section because of a history of previous C-sections. In these studies, large proportions of women reported not being involved in these decisions at all (64,98,99,44,61,95). For example, 41% of women in Pakistan who had a repeat C-section reported relying solely on the doctor to make the decision, while 48% of private obstetricians in Texas did not even offer a VBAC to women (100,103). When providers were in control, women's requests for VBAC were repeatedly ignored and mothers were forced to have C-sections (44). In Australia, women in these situations reported feeling angry for having to undergo a repeat C-section and questioned whether they would have had a different type of delivery if they had been more involved in decision-making (104). According to Kamal, such provider behaviour is not only highly directive, but also paternalistic (91). She showed, in her qualitative study exploring views of obstetricians and midwives in the UK, that some providers actively discouraged women from seeing themselves as having a choice in their mode of delivery (91).

An emerging body of literature is starting to highlight the role of physician-directed C-sections based on a loosening of medical indications for such procedures. A study by Ji (38) found approximately 35% of the C-section decisions made by providers, were not medically justified based on current clinical guidelines. For example, providers had chosen to deliver women by C-sections for pregnancy complications such as gestational diabetes, hypertension, oligohydramnios and a large fetus (38).

### ***Emergency C-sections***

Emergency C-sections were classified as surgical deliveries where the decisions to deliver was made after the onset of labour due to medical indications. In our review, 12 studies focused on emergency decision-making. In this context, women's and providers' roles drastically differed.

### *Providers as Decision-Makers of Emergency C-sections*

According to our review, providers played a large and key role in proceeding with an emergency C-section. Most studies reported providers to be either the primary decision-makers or to have significantly influenced women's decisions (34,45, 105-108). However, not all emergency C-sections were conducted due to urgent medical indication (108,109). A study by Kalish (109) found providers to recommend emergency C-sections even without a clear medical indication (109). This study explored the incidence of C-sections that were 'medically indicated' where women were not allowed to continue labouring compared to C-sections that were offered without a clear medical indication, where women were allowed to continue labouring, if she declined the offer (109). Of the 422 intrapartum C-sections studied, 13% of patients were found to have been offered a C-section without a clear medical indication (108). The authors suggest this is an example of physicians' providing intrapartum 'elective' C-sections, that is surgeries that were imposed on the patient under the guise of an 'emergency'. (109).

### *Women's role in Emergency C-sections was limited*

In contrast and as expected, women's involvement in decisions around emergency C-sections was limited (33,34,45,56). In a statewide survey conducted in Queensland, Australia, 60% of women stated they were consulted about the emergency C-section decision, while 9% reported they were not even informed about the need for an in-labour C-section (34). Only 27% of women in this study stated they made the decision to proceed with the emergency C-section (34). Mould (56) found similar results in the UK where 30% of women reported having had 'no say' in the emergency C-section decision (56). Moreover, not all providers believed women had the right to refuse an emergency C-section (78,106). For example, in a study exploring the perspectives of obstetricians across eight European countries on a competent women's refusal to consent to an emergency C-section due to acute fetal distress, only 12 – 59% of providers would accept the woman's decision and continue to assist a vaginal delivery (106). Significant variations were, however, found within the eight countries. Fifty nine percent of physicians in the United Kingdom and 41% in Sweden were willing to accept the women's decision, while 48-28% of physicians from Spain, France, Italy, Germany and Luxembourg reported they would seek a court order to safeguard the welfare of the fetus or to avoid legal liability (106). A small number of physicians across all countries stated they would disregard the mothers' choice and

proceed with a C-section without a court order (106).

Only four studies reported women were involved in making the final decision around emergency C-sections (109-112). One was, however, inconclusive with women reporting mixed responses on their level of involvement in decision-making (112). The remaining three studies reported of women, who requested and even demanded emergency C-sections during labour (109-111).

### ***C-section for Unspecified Reasons***

A handful of studies did not mention the type of C-section they explored or combined data from both emergency and planned C-sections. The findings of these studies, like the studies reported above, indicated the strong influence of physicians (29,51,113-119). In a Turkish cross-sectional study of 552 women who had delivered by C-section, 13.2% reported undergoing the C-section without medical indication (114). They had done so at the doctor's advice or spouse's preference (114). Although some obstetricians highlighted the importance of an informed consent conversation in which women had made the final decision around mode of delivery, the women contested this notion of choice and stated the obstetricians had made the final decision and merely sought their consent (117). Similarly, in a study in the United Kingdom, women described considerable pressure placed by providers to have a C-section and difficulty in asserting their preferences (29). Even when women refused emergency C-sections, they were often convinced to proceed with an operative delivery by multiple caregivers (115).

Four studies found women to have a larger role, including providing input or being the primary decision-maker (29,118,120,121). However, although women may have made the final decision about the C-section, it was not always made in the absence of professional input (29). Significant variations were found in women's role in public and private facilities (120). In public hospitals, providers largely made the decision for C-sections, while in private hospitals, 27% of women who had a C-section reported having made the decision themselves (120).

Only three studies reported on the varying roles of husbands in the decision-making process (115, 122, 123). Two studies reported that husbands did not have any specific opinions

regarding the mode of delivery and did not feel the need to contribute actively (115, 122). However, in one Swedish study, fathers expected to play a larger role in decision-making (123).

## **LIMITATIONS**

Our review has two main limitations. One is the lack of a universal classification of terms used to describe types of C-sections. In our review, study authors had used a variety of terminologies to classify the type of C-section they explored. To address this we categorized studies as emergency and planned C-sections based on the data provided. Secondly, given that our review used a critical interpretative synthesis approach, our focus was placed on the critique of the studies examined and emergence of a narrative argument, rather than the critical appraisal of studies (32). Therefore papers were not excluded based on quality, and methodologically weak papers may have been included. However, they still contributed to the narrative of the evidence (32).

## **CONCLUSION**

Our paper aimed to critically analyze the role of women and providers in decisions around delivery by C-section. Overall, our review suggests women played a significantly larger role in planned C-sections compared to emergency C-sections. This included being the primary decision-maker in requests for C-sections in the absence of medical indications, as well as mode of delivery decisions after a previous C-sections or breech presentation. Our review also suggests providers continue to play a key role in C-section decision-making. In planned C-section decisions, they provided information and supported women in the decision-making process. They also played a crucial role in influencing women's decisions through their recommendations. In some cases, providers continue to impede women's participation. As expected, providers play a significant role in identification of medical risk, and deciding when a medical indication justifies a C-section. Our review also highlighted a worrying trend of providers loosening criteria for a need for C-sections and proceeding with an unnecessary operative delivery.

Although over 90 studies were identified in our review, none of the articles focused on the C-section decision-making process of migrant women living in western, industrialized countries. Migrant women in these countries have been identified as having higher C-section

rates compared to locally-born women (124-127). Given the significant differences found in the roles of providers and women in our review, further research is necessary to understand if and how migrant women participate in C-section decisions, who makes the final decision, and whether they differ from the experiences of non-migrant women.

**Table 2: Studies exploring C-section decision-makers included in the review**

		<b>Title</b>	<b>Type of Study</b>	<b>Location</b>	<b>Description of Participants</b>	<b>Objectives</b>	<b>Type of C-section/Situation</b>
1	Alnaif, 2012	Practice of Primary Elective Cesarean Upon Maternal Request in the Commonwealth of Virginia	Cross-sectional study where quantitative and qualitative data were collected through a survey	United States of America	Nurse managers or labor and delivery charge nurses of all 55 hospitals in Virginia that provide obstetric services.	To evaluate the practice of on-demand elective cesarean delivery in Virginia.	C-section requested in the absence of medical indication
2	Arikan, 2011	Turkish obstetricians' personal preference for mode of delivery and attitude toward cesarean delivery on maternal request	Quantitative - questionnaire	Turkey	387 Turkish Obstetricians	To investigate the cesarean rate among actively practicing obstetricians in Turkey and reasons why they choose this mode of delivery for themselves/partners. (2) To investigate the attitudes, practices, and beliefs with respect to cesarean delivery on maternal request (CDMR) among actively practicing obstetricians in Turkey.	C-section requested in the absence of medical indication

3	Asher, 2013	Defensive Medicine among Obstetricians and Gynecologists in Tertiary Hospitals	Quantitative - prospective cross sectional survey	Israel	117 Board certified physicians and residents from the OBGYN departments.	To describe the daily work practice under the threat of defensive medicine among obstetricians and gynecologists.	Unspecified
4	Atan, 2013	Spontaneous vaginal delivery or caesarean section? What do Turkish women think?	Quantitative - cross-sectional study - survey	Turkey	342 women who had given birth via spontaneous vaginal delivery (SVD) or caesarean section (C/S) between June and December 2009 voluntarily agreed to participate.	The aim of this study was to describe women's feelings, attitudes and beliefs about different modes of childbirth.	Unspecified
5	Bagheri, 2013	Iranian obstetricians' views about the factors that influence pregnant women's choice of delivery method: A qualitative study	Qualitative study - semi-structured interviews	Iran	18 Obstetricians and resident medical staff in three hospitals in Kashan city, Iran	This study was designed to investigate views and experiences of obstetricians in one city in Iran, regarding women's choices about the mode of delivery.	Unspecified
6	Bergholt, 2004	Danish obstetricians' personal preference and general attitude to elective cesarean	Nation-wide anonymous postal questionnaire	Denmark	364 obstetricians and gynecologists identified in the	To assess Danish obstetricians' and gynecologists' personal preference and general attitude towards	C-section requested in the absence of medical

		section on maternal request: A nation-wide postal survey			records of the Danish Society of Obstetrics and Gynecology from January 2000.	elective cesarean section on maternal request in uncomplicated single cephalic pregnancies at term.	indication
7	Bonzon, 2017	Deciding on the mode of birth after a previous caesarean section – An online survey investigating women's preferences in Western Switzerland	Cross-sectional web-survey	Switzerland	French-speaking women living in Western Switzerland, with one previous CS who gave birth subsequently to a child after a complication-free pregnancy were eligible to participate in the survey. Of 393 women who started the survey in November/December 2014, 349 were included: 227 who planned a VBAC and 122 who	This study assessed which factors are associated with women's preferences for VBAC versus elective repeat caesarean section (ERCS) in a new pregnancy after one previous caesarean in Switzerland.	VBAC vs. repeat C-section

					planned an ERCS at term		
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8	Bryant, 2007	Caesarean birth: Consumption, safety, order, and good mothering	Qualitative study - interviews	Australia	<p>A total of 36 interviews were conducted in Australia, including 12 hospital-based midwives, 6 obstetricians, and 18 women who had experienced caesarean birth within the 2 years prior to the research interview. Of the 18 participating women, half were having their first baby. Twelve were privately insured and gave birth at private hospitals. Women reported various reasons for their caesareans: 5 reported having</p>	<p>This paper draws on empirical qualitative data to describe the discourses used by midwives, obstetricians and women to give meaning to their experiences with caesarean birth. The paper reveals the belief systems through which decisions about caesarean birth are made and considers how this social context might contribute to an increasing rate of caesarean birth.</p>	Unspecified
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					had a previous caesarean, 3 had babies who presented in breech position, 3 reported foetal distress of some sort, 1 had a baby who presented in posterior position, 1 woman reported a lack of progression of labour, 1 had twins, 1 reported that her baby was not engaging, 1 reported that she feared labour pain and 2 were unclear or unsure about the reasons for their caesarean.		
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9	Carayo 1, 2007	Non-clinical determinants of planned cesarean delivery in cases of term breech presentation in France	Quantitative - prospective survey	France	6080 women with breech presentation at term	To explore non-clinical maternal and institutional factors associated with the decision for planned cesarean in cases of breech presentation at term in France, where planned vaginal delivery are recommended by the French College of Gynecologists and Obstetricians (CNGOF) when conditions are optimal.	Vaginal Breech Delivery vs. Planned C- section
10	Catling , 2016	Care during the decision-making phase for women who want a vaginal breech birth: Experiences from the field	Qualitative - interviews	Australia	Five obstetricians and four midwives	The aim of this study was to explore how experienced clinicians facilitated decisions about external cephalic version and mode of birth for women who have a breech presentation.	Vaginal Breech Delivery vs. Planned C- section
11	Chen, 2012	Women's knowledge of options for birth after Caesarean Section	Quantitative - questionnaire	Australia	A sample of 33 women in South Australia who had a previous Caesarean Section	The aim of this study was to ascertain the determinants of knowledge regarding options for subsequent birth in women who have experienced a previous Caesarean Section with a live baby	VBAC vs. repeat C- section
12	Chen,	Women's decision-	Qualitative -	Taiwan	21 Pregnant	The aim of	VBAC vs.

	2018b	making processes and the influences on their mode of birth following a previous caesarean section in Taiwan: a qualitative study	prenatal observations and interviews		women who had undergone a previous CS and 9 obstetricians	this study was to explore women's decision-making processes and the influences on their mode of birth following a previous CS.	repeat C-section
13	Cheung, 2006	Caesarean decision-making: negotiation between Chinese women and healthcare professionals	Qualitative - interviews	China	52 postnatal women and 51 healthcare professionals	To understand Chinese women's perceptions and interpretations of their own caesarean decision-making and to investigate how their negotiation with healthcare professionals may be improved	Unspecified but includes C-section in the absence of medical indication
14	Colomar, 2014	Mode of Childbirth in Low-Risk Pregnancies: Nicaraguan Physicians' Viewpoints	Qualitative study - focus groups and in-depth interviews	Nicaragua	17 physicians	To explore attitudes of physicians attending births in the public and private sectors and at the managerial level toward cesarean birth in Nicaragua.	Unspecified
15	Cuttini, 2006	Patient Refusal of Emergency Cesarean Delivery	Quantitative	8 European countries - France, Germany, Italy, Luxembourg, Netherlands,	1530 Obstetricians	To compare the attitudes of a large sample of obstetricians from eight European countries toward a competent woman's refusal to consent to an emergency cesarean delivery for acute fetal distress.	Emergency C-section

				Spain, Sweden, and the United Kingdom			
16	Dahlen, 2013	'Motherbirth or childbirth'? A prospective analysis of vaginal birth after caesarean blogs	Qualitative study - using data from Internet blog sites	Internet - Most blogs were from the USA	Google alerts were created to search for the term VBAC in internet blogs. A total of 311 blogs were analyzed	The aim of this study was to examine how women use English language internet blog sites to discuss the option of VBAC and what factors influence these women's decision to have a VBAC or repeat caesarean section.	VBAC vs. repeat C-section
17	Dandolu, 2006	Resident Education Regarding Technical Aspects of Cesarean Section	Quantitative study - questionnaire	United States of America	The questionnaire was sent by e-mail to all the obstetrics and gynecology residency programs across the country, to be distributed to their residents. The first 400 responses were analyzed.	To survey obstetric/gynecologic residents around the country regarding different technical aspects of and indications for cesarean section, trends in vaginal birth after cesarean (VBAC) and patient choice of cesarean	VBAC vs repeat C-section and C-section requested in the absence of medical indication
18	Danerik, 2011	Attitudes of Midwives in Sweden Toward a	Quantitative - questionnaire	Sweden	The study group comprised	The objective of this study was to describe the	Emergency C-section

		Woman's Refusal of an Emergency Cesarean Section or a Cesarean Section on Request			midwives who had experience working at a delivery ward at 13 maternity units with neonatal intensive care units in Sweden (n = 259).	attitudes of midwives in Sweden toward the decision making by obstetricians in relation to women's refusal of an emergency cesarean section and also to women's request for a cesarean section without a medical indication.	and C-section requested in the absence of medical indication
19	Dominigues, 2014	Process of decision-making regarding the mode of birth in Brazil: from the initial preference of women to the final mode of birth	Quantitative - national hospital based cohort	Brazil	23,940 post-partum women	The purpose of this article is to describe the factors cited for the preference for type of birth in early pregnancy and reconstruct the decision process by type of birth in Brazil.	Unspecified
20	Doret, 2010	Vaginal birth after two previous c-sections: obstetricians-gynaecologists opinions and practice patterns	Quantitative - questionnaire	France	105 obstetricians	To evaluate obstetricians' practice patterns, opinions and factors influencing decision-making about mode of delivery in women with two previous c-sections.	VBAC or repeat C-section after one and two previous C-sections
21	Emmett, 2006	Women's experience of decision making about mode of delivery after a previous caesarean section: the role of	Qualitative study - interviews	England and Scotland	Twenty-one women who had recently delivered a baby and whose previous child	To explore women's experiences of decision making about mode of delivery after previous caesarean section.	VBAC vs. repeat C-section

		health professionals and information about health risks			was delivered by caesarean section.		
22	Farrell, 2005	The choice of elective cesarean delivery in obstetrics: a voluntary survey of Canadian health care professionals	Quantitative - questionnaire	Canada	162 health professionals	To survey Canadian health care professionals about their willingness to offer elective cesarean delivery and to evaluate how their knowledge of obstetric-related pelvic-floor injury influences their practice.	Planned C-section and C-sections requested in the absence of medical indication scenarios
23	Fenwick 2007	Believing in birth – choosing VBAC: the childbirth expectations of a self-selected cohort of Australian women	Qualitative	Australia	35 women who experienced a VBAC or would choose this option in subsequent pregnancy	This study explored the childbirth expectations and knowledge of women who had experienced a caesarean and would prefer a vaginal birth in a subsequent pregnancy.	VBAC vs. repeat C-section
24	Fenwick, 2010	Why do women request caesarean section in a normal, healthy first pregnancy?	Qualitative - interviews	Australia	14 women who reported requesting a caesarean section in their first pregnancy in the absence of medical indications	The purpose of this study was to describe Australian women's request for a caesarean section in the absence of medical indicators in their first pregnancy.	C-section requested in the absence of medical indication
25	Foureu	Caring for women	Qualitative	Australia	18 midwives and	To explore the views and	VBAC vs.

	r, 2017	wanting a vaginal birth after previous caesarean section: A qualitative study of the experiences of midwives and obstetricians	study - Focus groups		obstetricians.	experiences of providers in caring for women considering VBAC, in particular the decision-making processes and the communication of risk and safety to women.	repeat C-section
26	Ghetti, 2004	Physicians' Responses to Patient-Requested Cesarean Delivery	Quantitative - questionnaire	United States of America	170 Obstetrician-gynecologists	Our objective was to examine factors that determined physicians' responses to patient-requested cesarean delivery.	C-section requested in the absence of medical indication
27	Glaso, 2013	Breech delivery – what influences on the mother's choice?	Quantitative - questionnaire	Norway	Hospital records of 390 patients with singleton term pregnancies with breech presentation. A questionnaire was sent to those 293 women in whom vaginal breech delivery was considered possible and safe.	To investigate factors influencing the mother's choice of delivery mode when vaginal breech delivery is considered possible and safe.	Vaginal Breech Delivery vs. Planned C-section
28	Goodal	Birth choice following	Qualitative	United	10 pregnant	This study explored mothers'	VBAC vs.

	l, 2009	primary Caesarean section: mothers' perceptions of the influence of health professionals on decision-making	study - semi-structured interviews	Kingdom	women expecting a second child following a first delivery by Caesarean section	perceptions of the influences of health professionals (GPs, midwives and consultants) on decisions as to mode of delivery of second children, following a previous Caesarean section (CS).	repeat C-section
29	Goven der 2010	Second stage caesarean section at a tertiary hospital in South Africa	Quantitative - Prospective chart audit	South Africa	All women who underwent an emergency C-section over a 7 month period at a tertiary hospital (N=1091 C-sections).	An audit of second stage caesarean section (C/S) at a tertiary hospital was undertaken to compare the frequency of perinatal and maternal complications between first and second stage C/S and to evaluate the training level of physicians.	Emergency C-section
30	Graham, 1999	An investigation of women's involvement in the decision to deliver by caesarean section	Qualitative - Interviews with the women on the third or fourth day postpartum, questionnaires sent to the women at 6 weeks and at 12 weeks postpartum, and extraction	Scotland	166 women undergoing a C-section	The purpose of this study was to measure women's involvement in the decision to deliver by caesarean section.	Emergency and Planned C-section

			of information from the women's medical records.				
31	Hildingsson, 2015	Women's birth expectations, are they fulfilled? Findings from a longitudinal Swedish cohort study	Quantitative - questionnaire	Sweden	1042 Swedish-speaking women who completed a questionnaire about birth expectations in late pregnancy and were followed up with two months after birth.	The aim of this study was to describe pregnant women's expectations about birth and to investigate if their expectations were fulfilled. An additional aim was to determine if unfulfilled expectations were related to mode of birth, use of epidural and the birth experience.	Emergency and Planned C-section
32	Hildingsson, 2010	Birth Preferences that Deviate from the Norm in Sweden: Planned Home Birth versus Planned Cesarean Section	Quantitative - cohort study	Sweden	671 women who had a planned home birth and 126 women who had a planned cesarean section based on maternal request.	The aim of this study was to compare background characteristics of women who chose these very different birth methods and to see how these choices affected factors of care and the birth experience.	Planned C-section
33	Hopkins, 2000	Are Brazilian women really choosing to deliver by	Mix methods - postpartum survey,	Brazil	321 Women who delivered in both pub-	This paper looks at three complementary sets of questions for the Brazilian	Emergency C-section

		cesarean?	participation observation and indepth interviews.		lic and private hospitals in Brazil.	case. First, how do women view cesarean section versus vaginal delivery? Do their perceptions coincide with Brazilian obstetricians' and academics' hypotheses about how women view different types of delivery? Second, what are Brazilian women's wishes about delivery? Do they want to deliver vaginally, by cesarean, or do they have no particular preference, provided that the baby is healthy? The main question this paper explores is to ask whether doctors passively submit to women's delivery wishes or are they more active in producing this so-called demand for cesarean section? And if they are more active, what are some of the mechanisms through which doctors encourage women to accept cesareans as necessary and desirable?	
34	Huang 2013	A mixed-method study of factors associated	Mixed methods:	China	(a) household survey	To assess a population-based caesarean section (CS )rates in	General C-section

		with differences in caesarean section rates at community level: The case of rural China	quantitative and qualitative		participants: 2326 women who gave birth in the two counties from January 2005 to December 2006; (b) qualitative study participants: health providers a township and village level and maternal health-care providers(N=58) .	rural China and explore determinants and reasons for choosing a CS.	
35	Huang 2013b	Decision-Making Process for Choosing an Elective Cesarean Delivery Among Primiparas in Taiwan	Qualitative - interviews	Taiwan	Data were collected through in-depth interviews with 20 primiparous women, 15 of whom chose ELCD. .	The purpose of this study was to understand the decision-making process of choosing an elective cesarean delivery (ELCD) among primiparas in Taiwan.	C-section requested in the absence of medical indication
36	James 2012	Delivery method choice in the South African private sector	Quantitative survey	South Africa	The research population for this study were:	The primary objective of the study is to explore and describe the factors that influenced pregnant	Unspecified

					<p>women who were stable and were at least 6 hours post vaginal delivery or 10 hours post caesarean section, had delivered a live and still alive infant, the infant should have had no major complications during labour or post delivery. Simple random sampling was used.</p> <p>100 were selected from the different ward admission registers over a period of 2 months.</p>	women in their choices regarding the mode of birth.	
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37	Ji, 2015	Factors contributing to the rapid rise of caesarean section: a prospective study of primiparous Chinese women in Shanghai	Quantitative - questionnaire	China	A cohort of 832 low-risk primiparous women participated in the investigation from 2010–2012 three consecutive times, from their second to third trimester and, finally, 1–2 days post partum.	To identify factors contributing to the rapid rise of caesarean section in Shanghai through the prospective observation of changes in the preferred mode of delivery in pregnancy among primiparous Chinese women.	Planned C-sections and C-sections requested in the absence of medical indication
38	Johansson 2014	‘As long as they are safe – Birth mode does not matter’ Swedish fathers’ experiences of decision-making around caesarean section	Qualitative - telephone interviews	Sweden	Twenty one Swedish men whose partners had experienced elective or emergency caesarean	To explore and describe Swedish fathers’ beliefs and attitudes around the decision for a caesarean section.	Unspecified
39	Johansson, 2013	Intrapartum care could be improved according to Swedish fathers: Mode of birth matters for satisfaction	Quantitative - Cross-sectional design, part of a prospective longitudinal survey	Sweden	827 fathers	The aim was to explore Swedish fathers’ intrapartum care quality experiences, with a specific focus on care deficiencies in relation to birth mode. A secondary aim was to explore which	Unspecified

						issues of quality that contributed most to dissatisfaction with the overall assessment of the care.	
40	Kabore, 2016	Determinants of non-medically indicated cesarean deliveries in Burkina Faso	6-month prospective observational study - criteria based audit	Burkina Faso	The first 100 women who underwent cesarean delivery in each participating hospital from May 2, 2014, to November 2, 2014 were included in the study	To identify the factors associated with non-medically indicated cesarean deliveries (NMIC) in Burkina Faso in centers where user fees for cesarean delivery were partially removed.	Unspecified
41	Kalish, 2004	Intrapartum Elective Cesarean Delivery: A Previously Unrecognized Clinical Entity	Quantitative - survey	United States of America	For the 6-month period from May 1, 2002, to October 31, 2002, obstetricians were asked to complete a questionnaire after all cesarean deliveries they performed on patients who had been in labor at	The purpose of the study was to investigate the incidence of intrapartum patient choice cesarean delivery—patients’ requesting cesarean delivery and physicians’ offering it during labor—and factors possibly influencing these requests and offers.	Emergency C-section

					New York Weill Cornell Medical Center.		
42	Kamal, 2005	Factors influencing repeat caesarean section: qualitative exploratory study of obstetricians' and midwives' accounts	Qualitative	United Kingdom	25 doctors and midwives	To explore the views of health professionals on the factors influencing repeat caesarean section. Identification of factors influencing professional decision making about repeat caesarean section.	VBAC vs. repeat C-section
43	Karlström, 2009	Swedish caregivers' attitudes towards caesarean section on maternal request	Qualitative descriptive study - focus group discussions	Sweden	16 midwives and 9 obstetricians	This study describes obstetricians' and midwives' attitudes towards CS on maternal request.	Patient requested C-section including CDMR but also repeat C-section
44	Karlström, 2011	A comparative study of the experience of childbirth between women who preferred and had a caesarean section and women who preferred and had a vaginal birth	Quantitative - longitudinal cohort study	Sweden	693 women participated, 420 of whom were multiparas	The aim of the present study was to compare experiences and feelings during pregnancy and childbirth in women who had a preference for caesarean section during pregnancy and were delivered by a planned caesarean section and women who preferred to give birth vaginally and actually had a spontaneous	Planned C-section

						vaginal birth.	
45	Kennedy 2013	Elective caesarean delivery: A mixed method qualitative investigation	Qualitative study - interviews	England	27 women and 34 health professionals (midwifery, obstetric, anaesthesia)	The purpose of this interpretive qualitative study was to explore the complexities of women's and clinicians' choices around elective caesarean delivery.	VBAC vs. repeat C-section
46	Kilic, 2012	The Delivery Methods and the Factors Affecting Among Giving Birth in Hospitals in Yozgat, Turkey	Quantitative cross-sectional survey	Turkey	822 women who gave live birth	The aim of this study was to establish the delivery preferences among women giving birth in hospitals and the factors affecting this preference.	Unspecified
47	Kisa, 2016	Opinions of women towards cesarean delivery and priority issues of care in the postpartum period	Quantitative	Turkey	558 women who delivered by C-section	The research questions of this study are: 1. What are the opinions of women about CD in Turkey? 2. What are the postpartum problems associated with CD? 3. What are the factors affecting postpartum problems after CD?	Unspecified
48	Kolip, 2009	Involvement of first-time mothers with different levels of education in the decision-making for their delivery by a planned Caesarean	Cross-sectional study	Germany	For this part of the study, we selected primiparae who had undergone a planned Caesarean	We investigated the involvement of first-time mothers, who had a planned Caesarean section, in the decision to have a Caesarean section, taking into account their	Planned C-section

		section. Women's satisfaction with information given by gynaecologists and midwives			section. (N=352)	different educational levels.	
49	Konheim-Kalkstein, 2014	Examining influences on women's decision to try labour after previous caesarean section	Quantitative survey	United States of America	215 women planning a TOLAC, 20 planning an ERCD and 48 Undecided (total N = 283)	We examined variables that may influence women's decision to try for a Vaginal Birth After Caesarean (VBAC) or an Elective Repeat Caesarean Delivery (ERCD).	VBAC vs. repeat C-section
50	Kornelsen, 2010	Influences on Decision Making Among Primiparous Women Choosing Elective Caesarean Section in the Absence of Medical Indications: Findings From a Qualitative Investigation	Qualitative	Canada	17 primiparous women who underwent elective Caesarean section in the absence of medical indications.	To determine the attitudes and decision-making processes of 17 primiparous women who underwent elective Caesarean section in the absence of medical indications.	C-section requested in the absence of medical indication
51	Lavender, 2006	Birth method: trial and error?	Mixed method: questionnaire with closed questions and free text spaces for providing rationale	England	660 Consultant obstetricians and 163 heads of midwifery	Explore the of midwives and obstetricians on maternal request for C-section without clinical indication and the possibility of an RCT of planned C-section versus planned vaginal birth	C-section requested in the absence of medical indication
52	Lee,	Exploring factors	Qualitative	China	Six postnatal	To identify the factors that	C-section

	2001	influencing Chinese women's decision to have elective caesarean surgery	exploratory design		women who had undergone an elective C-section	influence Hong Kong Chinese women's decision to have an elective caesarean section. To explore Chinese women's perceptions of their autonomous involvement in childbirth decision-making.	requested in the absence of medical indication
53	Lee, 2004	Women's Attitudes Toward Mode of Delivery in South Korea—a Society with High Cesarean Section Rates	Quantitative - questionnaire	South Korea	505 women	This study aimed to explore the attitudes toward mode of delivery among South Korean women.	Unspecified but includes C-section in the absence of medical indication
54	Lescale, 1996	Conflicts between physician and patients in non-elective cesarean delivery: incidence and the adequacy of informed consent	Quantitative survey	United States of America	372 patients	The purpose of this study is threefold: 1) to explore the incidence and nature of conflicts between physician and patient surrounding the decision to undergo non-elective cesarean delivery; 2) to examine the adequacy of informed consent at the time of non-elective cesarean delivery; and 3) to describe the importance of a preventive ethics approach to non-elective cesarean delivery	Unspecified
55	Litorp, 2015	Fear, blame and transparency: Obstetric caregivers' rationales	Qualitative - focus group discussions,	Dar es Salaam, Tanzania	Midwives (14), residents (11), specialists (5),	To explore obstetric caregivers' rationales for their hospital's CS rate in	Unspecified

		for high caesarean section rates in a low-resource setting	Participant observation, indepth interviews		and senior consultants (2)	order to identify factors that might cause CS overuse.	
56	Litorp, 2015b	‘What about the mother?’ Women' sand caregivers 'perspectives on caesarean birth in a low-resource setting with rising caesarean section rates	Qualitative study - semi-structured interviews, focus groups and participant observation	Dar es Salaam, Tanzania	13 Women and 16 caregivers. Women had under gone a caesarean section within two months preceding. Caregivers were consultants, specialists, residents, and midwives.	Our aim was to explore women's and caregivers' experiences, attitudes, perceptions, and beliefs in relation to CS.	Emergency and Planned C-sections, including C-sections requested in the absence of medical indication
57	McGrath, 2009	Bioethics and Birth: Insights on Risk Decision-Making for an elective Caesarean after a prior caesarean delivery	Qualitative study - interviews	Australia	16 mothers who chose a repeat C-section after a previous C-section	The aim of the research was to explore from the mothers' perspective the process of decision-making about mode of delivery for a subsequent birth after a previous caesarean. The findings presented in this article are from the data that describes the perspective of the mothers who underwent an EC on risks associated with the delivery	VBAC vs. repeat C-section

						modes of VBAC and EC, and their experience discussing such risks with the health professionals who provided their obstetric care.	
58	McGrath, 2010	Speaking Out! Qualitative Insights on the Experience of Mothers Who Wanted a Vaginal Birth after a Birth by Cesarean Section	Qualitative	Australia	Women who attempted but did not achieve a VBAC (TVBAC) [n = 2] and a subset of women (n = 6) who chose an EC even though they valued a vaginal birth.	The focus of this article is on the subset of findings that recorded the frustration of women who valued a vaginal delivery but who delivered by CS.	VBAC vs. repeat C-section
59	McLennan, 2005	Patients' Satisfaction with and Attitudes Toward Vaginal Delivery	Quantitative - questionnaire	United States of America	192 Post-partum women	To determine patient satisfaction with delivery mode and whether information on urinary incontinence would modify their decision	Unspecified but includes repeat C-section, and emergency C-section.
60	Moffat, 2007	Decision making about mode of delivery among pregnant women who have previously had a caesarean section: a	A qualitative study using diaries, observations and semi-structured	Scotland	Twenty-six women who had previously had a caesarean section for a non-recurrent	The aim of this study was to explore prospectively the decision-making process regarding mode of delivery for women who had previously given birth	VBAC vs. repeat C-section

		qualitative study	interviews.		cause.	by caesarean section; in particular, to understand when and how this decision is made.	
61	Moosa vi, 2017	Influencing factors in choosing delivery method: Iranian primiparous women's perspective	Quantitative - cross-sectional study	Iran	230 cesarean section and 230 vaginal delivery women	The aim of his study was to determine the factors that influence the choice of delivery method by Iranian primiparous women.	Unspecified
62	Mould, 1996	Women's involvement with the decision preceding their caesarean section and their degree of satisfaction	Qualitative	London	102 Women who had either a planned or an emergency C-section	In this study, women were asked to document the extent to which they felt they had contributed to the decision for their caesarean section. They recorded what they understood was the reason for their operative delivery and the degree of satisfaction they felt with both the decision and the procedure itself.	Emergency and Planned C-section
63	Munro, 2017	Seeking control in the midst of uncertainty: Women's experiences of choosing mode of birth after caesarean	Qualitative study - interviews	Canada	23 women eligible for VBAC in three rural and two urban communities in British Columbia, Canada	The goal of this study was to explore attitudes towards and experiences with decision-making for mode of delivery after caesarean from the perspectives of Canadian women.	VBAC vs. repeat C-section

64	Munro, 2017b	Do Women Have a Choice? Care Providers' and Decision Makers' Perspectives on Barriers to Access of Health Services for Birth after a Previous Cesarean	Qualitative - interviews	Canada	Care provider participants included midwives (n = 4), obstetricians (n = 4), family physicians (n = 3), general practitioners with cesarean delivery skills (n = 3), nurses (n = 7), and one anesthetist. Decision makers included hospital administrators (n = 5), regional decision makers (n = 4), and provincial policy makers (n = 4).	This study sought to explore the following questions: 1) What are care providers' attitudes toward and experiences with providing care for women considering mode of delivery after cesarean in British Columbia, Canada? 2) What are decision makers' experiences with planning services for birth after cesarean in British Columbia?	VBAC vs. repeat C-section
65	Nilsson, 2017	Vaginal birth after caesarean: Views of women from countries with low	Qualitative study	Germany, Ireland and Italy	51 women	To investigate women's views on important factors to improve the rate of vaginal birth after	VBAC vs. repeat C-section

		VBAC rates				caesarean in countries where vaginal birth rates after previous caesarean are low.	
66	Ouyang, 2013	A study on personal mode of delivery among Chinese obstetricians-gynecologists, midwives and nurses	Quantitative - questionnaire	China	293 medical staff	To investigate mode of delivery among Chinese female obstetrician-gynecologists, midwives and nurses and to explore reasons why they choose cesarean section for themselves and their advice on mode of delivery	Unspecified but includes CDMR
67	Petrovska, 2016	Supporting Women Planning a Vaginal Breech Birth: An International Survey	Electronic research survey	Internet survey	204 women who had previously planned a vaginal breech birth	This study was undertaken to explore the experiences of women who reported choosing a vaginal breech birth and were motivated to seek supportive care and information that assisted them to access this option for birth. This study also aimed to increase understanding in how to best support these women and provide quality information.	Vaginal Breech Delivery vs. C-section
68	Petrovska, 2017b	'Stress, anger, fear and injustice': An international qualitative survey of	Electronic research survey	Internet survey	204 women who had previously planned a vaginal breech	This study aimed to examine the experiences of women who sought a vaginal breech birth	Vaginal Breech Delivery vs. Planned C-

		women's experiences planning a vaginal breech birth			birth	to increase understanding as to how to care for women seeking this birth option.	section
69	Petrovska, 2017c	The fact and the fiction: A prospective study of internet forum discussions on vaginal breech birth	Qualitative descriptive study	Internet blog site	A total of 50 "discussion threads" were collected from 1/1/2013 to 31/12/13 which consisted of 382 separate comments.	The aim of this study was to examine how women use English language internet discussion forums to find out information about vaginal breech birth and to increase understanding of how vaginal breech birth is perceived among women.	Vaginal Breech Delivery vs. Planned C-section
70	Pomeranz, 2017	"In God we trust" and other factors influencing trial of labor versus Repeat cesarean section	Quantitative - questionnaire	Israel	197 women	To investigate factors influencing women's decisions to undergo trial of labor after cesarean (TOLAC) or elective repeat cesarean delivery (ERCD) based on the Multidimensional Health Locus of Control (MHLC), religious observance and family planning.	VBAC vs. repeat C-section
71	Quinlivan, 1999	Patient Preference the Leading Indication for Elective Caesarean Section in Public Patients - Results of a 2-year Prospective	Prospective audit of C-sections	Australia	1624 C-sections	To prospectively audit the indications to perform a Caesarean section delivery as an elective or nonelective procedure in an	Planned and emergency C-sections

		Audit in a Teaching Hospital				Australian teaching hospital over a 2-year period. We were also interested to investigate the circumstances of Caesarean section delivery in terms of its timing and changing trends in the mode of anaesthesia.	
72	Ramvi, 2011	Experiences of women who have a vaginal birth after requesting a Cesarean section due to a fear of birth: A biographical, narrative, interpretative study	Qualitative	Norway	5 women	The aim of this study was to investigate specifically women who requested a Cesarean section due to fear, but who still gave birth vaginally despite this fear. The fear, the decision-making process, and the vaginal birth experience were explored from the women's perspective	Wanted a C-section in the absence of medical indication
73	Renner 2007	Informational factors influencing patient's childbirth preferences after prior cesarean	Quantitative: Cross sectional survey	United States	80 Postpartum women, who had previous cesarean, delivering by VBAC or repeat cesarean	The goal of this study was to examine how information patients received in pregnancy affects childbirth preferences and satisfaction.	VBAC vs. repeat C-section
74	Ridley, 2002	What Influences a Woman to Choose Vaginal Birth After Cesarean?	Qualitative	United States	Five women who had delivered via VBAC within 2	To discover what influences women in the decision to deliver via vaginal birth after cesarean	VBAC or repeat C-section

					to 4 months before the study.	(VBAC).	
75	Robson, 2015	Concordance of maternal and paternal decision-making and its effect on choice for vaginal birth after caesarean section	Quantitative survey - questionnaires	Australia	75 couples with a singleton pregnancy, a normal second-trimester morphology ultrasound	This study aimed to compare the reactions of fathers and mothers to the prospect of VBAC.	VBAC vs. repeat C-section
76	Ryding, 1998	Experiences of Emergency C-Section: A Phenomenological Study of 53 Women	Interviews using time-spatial model	Sweden	53 women who had an emergency C-section	To describe women's thoughts and feelings during the process of a delivery that ended in an emergency C-section, to ascertain if an emergency C-section might fulfill the stressor criterion of posttraumatic stress disorder according to the DSM IV, and to examine the women's causal attributions to the event	Emergency C-section
77	Sahlin, 2013	First-time mothers' wish for a planned caesarean section: Deeply rooted emotions	Qualitative study - interview	Sweden	12 first-time mothers	The aim of this study was to describe the underlying reasons for the desire for a caesarean section in the absence of medical indication in pregnant first-time mothers.	C-section requested in the absence of medical indication
78	Schantz, 2016	Factors associated with caesarean sections in	Mixed method: prospective	Cambodia	A prospective cohort of 146	We aimed to analyze the reasons for	Emergency C-section

		Phnom Penh, Cambodia	cohort and indepth interviews		pregnant women	requesting a c-section and to explore factors that are associated with c-sections	
79	Shoaib, 2012	Decision-making and involvement of women with previous C-section in choosing their mode of delivery	Cross-sectional study	Pakistan	150 women with one previous CS due to non-recurrent cause with a parity of two or more	To determine the attitude and factors leading to decision regarding the mode of delivery in women with previous experience of C-section.	VBAC vs. repeat C-section
80	Shorten, 2014	Complexities of Choice after Prior Cesarean: A Narrative Analysis	Qualitative written survey	Australia	The study enrolled 227 women at 12–20 weeks of pregnancy who were medically eligible to choose between TOL and ERCD (19). Women were randomized to receive a decision-aid booklet about Birth Choices after cesarean (n = 115) or usual antenatal care	This article explores values and expectations that guide women during decision making about the next birth after cesarean and identifies factors that influence consistency between women’s choices and actual birth experiences	VBAC vs. repeat C-section

					(n = 112). After study attrition (n = 34) and missing data (n = 6), a total of 187 women (n = 93 experimental group; n = 94 control group) provided qualitative data.		
81	Silva 2014	The experience of women regarding cesarean section from the perspective of social phenomenology	Qualitative	Brazil	Eight puerperals who had C-section as their first experience of delivery	To understand the experience of the primiparous woman in regards to cesarean section.	C-section requested in the absence of medical indication
82	Stutzer, 2017	Elective Caesarean section on maternal request in Germany: factors affecting decision making concerning mode of delivery	Questionnaire	Germany	28 women who underwent CSMR without an absolute medical indication between 2006 and 2011 compared to 29 people who had VD	To investigate sociopsychological factors of women undergoing a caesarean section on maternal request (CSMR).	C-section requested in the absence of medical indication
83	Suzuki,	Reasons Why Some	Qualitative	Japan	121 Japanese	We examined whether or not	VBAC vs.

	2015	Japanese Pregnant Women Choose Trial of Labor After Cesarean	study - We reviewed the obstetric records of all Japanese women with a prior cesarean section who visited our hospital for reservation of their second delivery between January and December 2013. An interview was conducted to ask them whether or not they hope to perform TOLAC at their first visits. If the women hope to perform TOLAC, an		pregnant women with a prior cesarean section	the Japanese pregnant women with a history of a cesarean section have the knowledge about the benefits and harms of TOLAC and ERCD.	repeat C-section
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			additional interview concerning the reason for TOLAC hope and the counseling about the benefits and harms of both a TOLAC and an ERCD were conducted.				
84	Thompson, 2014	Birth control: to what extent do women report being informed and involved in decisions about pregnancy and birth procedures?	Quantitative	Australia	3542 Participants were women who had a live birth in Queensland in a specified time period and were not found to have had a baby that died since birth, who completed the extended Having a Baby in Queensland	Our objective was to examine decision-making processes, specifically information provision and consumer involvement in decision-making, for nine pregnancy, labour, and birth procedures, as reported by maternity care consumers in Queensland, Australia	Pre-labour C-section and Post labour C-section: (Emergency and Planned C-section)

					Survey, 2010 about their maternity care experiences, and who reported at least one of the nine procedures of interest.		
85	Tully, 2013	Misrecognition of need: Women's experiences of and explanations for undergoing cesarean delivery	Qualitative	United Kingdom	Participants who underwent either an unscheduled (n =48) or scheduled (n =27) cesarean section delivery and women who experienced scheduled, non-labor cesarean section delivery (n = 40).	The purpose of this paper is therefore to document the circumstances in which cesarean section was deemed to be appropriate in one UK hospital through the eyes of the women and their partners experiencing the operative delivery of their infant. We explore whether women perceived their childbirth choices as constrained, and if so, how, and contemplate the question "When does a cesarean section become 'necessary'?"	Emergency and planned C-sections
86	Turnbull, 1999	Women's role and satisfaction in the decision to have a cesarean section	Quantitative - Cross-sectional survey	Australia	A consecutive sample of women who underwent CS	To examine women's role in the decision to perform caesarean section (CS)	Emergency and planned C-sections

					over a six-month period. N=278		
87	Van Reenan, 2015	South African Mothers' Coping With an Unplanned Caesarean Section	Qualitative study - interviews	South Africa	10 women	In this study, the researchers aimed to develop a comprehensive and insightful understanding of the factors relevant to South African women's experiences of birth by unplanned Caesarean section. Specifically, the objective of this article is to explore and describe these mothers' subsequent coping strategies.	Emergency C-section
88	Wax 2005	Patient Choice Cesarean—The Maine Experience	Quantitative - questionnaire	Maine, United States of America	110 American College of Obstetricians and Gynecologists Fellows and Junior Fellows-in-practice (board certified or actively seeking board certification) practicing	The purpose of this study was to determine obstetricians' attitudes and practices with respect to patient choice cesarean among American College of Obstetricians and Gynecologists Fellows and Junior Fellows-in-practice who were actively practicing obstetrics in the state of Maine, United States.	C-section requested in the absence of medical indication

					obstetrics in Maine.		
89	Weaver, 2005	Wanting a caesarean section: the decision process	Qualitative study - interviews	England	Forty-four postnatal women were interviewed because they had reported making a decision about CS during pregnancy	The ideas, factors and events that influenced the women's thoughts and decisions about a C-section were explored.	Unspecified
90	Weaver, 2007	Are There "Unnecessary" Cesarean Sections? Perceptions of Women and Obstetricians About Cesarean Sections for Nonclinical Indications	Quantitative and qualitative methods	United Kingdom	23 multiparous and 41 primiparous pregnant women; 24 consultants and registrars were interviewed and 785 consultants from the United Kingdom and Eire completed postal questionnaires	The aim of this study was to examine whether, and in what context, maternal requests for cesarean section are made.	Unspecified
91	Wells, 2010	Vaginal Birth After Cesarean Delivery: Views from the Private Practitioner	Anonymous postal survey	Dallas, Texas, United States of	458 Private obstetrical providers	The aim of the study was to assess the views and policies of private practice obstetricians regarding trial of	VBAC vs. repeat C-section

				America		labor after cesarean delivery (TOLAC), compare physician and hospital characteristics of both VBAC and non-VBAC providers to evaluate their possible influence on TOLAC, and to survey both the VBAC and Non-VBAC providers' reasons for their declining use of TOLAC.	
92	York, 2005	Why women choose to have a repeat caesarean section	Qualitative study – interviews	England	10 women who had a previous emergency C-section	The aim of this study was to explore women's views and the factors affecting their decisions to have a repeat caesarean section following one previous emergency caesarean section.	VBAC vs. repeat C-section

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## **Chapter 2: Methods**

In order to understand if and how Caesarean section (C-section) decisions are made by migrant women, and whether they differ from the experiences of Canadian-born women, a holistic understanding of the complexities of C-section decision-making needs to be gained. Complete immersion in the field is required to observe and understand the varying roles of women, and healthcare providers in decision-making, the subtleties of patient-provider interactions and their influence on the women's ability to participate in decision-making. Given this, a focused ethnography was selected as the suitable method of choice.

Focused ethnographies share similar elements with traditional ethnographies which allow for the exploration of "the cultural beliefs and practices that generate observed behavior" and understanding of the participants' view of the world (1, p. 9). This allows the researcher to draw on the experiences and common behaviours of participants, to understand a shared cultural perspective (1-3). However, unlike traditional ethnographies, focused ethnographies are more targeted both in terms of context and population, and are led by a specific research question over a shorter period of time (4). Given that I wanted to understand the perspectives of migrant women and Canadian-born women through the C-section decision making process over a finite data collection period, a focused ethnography was deemed to be the most appropriate method of choice.

### **Study Setting**

Data collection took place in Edmonton, Alberta at a teaching hospital and a linked obstetrics and gynecology clinic. The city of Edmonton is located in the northern part of the province of Alberta and has a population of 899, 447 (5). In the 2011 National Household Survey (NHS), immigrants represented 20.6% of the Canadian population while non-permanent residents represented 1.1% (6). Alberta had a comparable immigrant population with 18.1% of the Albertan population being foreign born in 2011 (6). Immigrants represented 20.3% of Edmontonians while non-permanent residents accounted for 1.98% of the population (7). Given these population demographics, Alberta and specifically, Edmonton is representative of both the Canadian-born and migrant population we wished to study, and was selected as a suitable study location. The selected teaching hospital is located in the heart of urban Edmonton, and is one of

four obstetrics facilities that serve Edmonton. The hospital offers inpatient and outpatient care for women, and houses facilities for specialized obstetrical and gynecological services. Both the hospital and clinic were selected based on the large multicultural and migrant community they serve.

## **Participants**

### *Study Population and Eligibility*

In order to compare the C-section decision-making processes of migrant women to Canadian-born women, both groups of women were included in the study population. Migrant women were defined as women who were born outside of Canada and had migrated to Canada after January 1, 2004. This broad definition allowed the inclusion of all migrant women irrespective of country of origin and migration status, including those who arrived as refugees, sponsored immigrants, and students. Canadian-born women were defined as all women who were born in Canada. Since the aim of the study was to understand C-section decision-making, purposeful sampling was used to recruit participants who can provide the most information about this phenomenon of interest (4). We recruited participants who had a higher probability of having a C-section, by restricting the eligibility criteria to nulliparous women, twin pregnancy, women who have had one or more previous C-section deliveries, and women pregnant with a large fetus.

### *Recruitment*

Recruitment took place during the prenatal appointments at the linked clinic. Obstetricians approached eligible women to inquire their interest in participating in the study. I followed up with women who expressed interest after their prenatal appointments, where information about the study was provided. These conversations often included accompanying family members. I reviewed the study information sheet with participants, explained the data collection strategies, as well as confidentiality and anonymization of information. I answered the questions of participants and family members and obtained written informed consent from participating women.

### *Sample Size*

Traditional ethnographies consist of a sample size of 25 – 35, however focused ethnographies have a smaller sample size (4). With this in mind, a sample size of 18 – 20 women for each group was selected. However, data was collected until data saturation was obtained and no new data was generated. This ensured all emerging ideas were thoroughly understood, and negative cases were followed through and checked (2,4).

A total of 91 participants were recruited in the study, of which 64 were migrant and 27 were Canadian-born. Both participant groups have been described in greater detail in the following sections. Three participants declined to participate after recruitment and 34 participants were lost to follow up. Table 2, below, lists the general characteristics of the remaining 54 participants.

**Table 3. Characteristics of Participants**

<b>Characteristics</b>	<b>Number of Participants</b>							
<b>Canadian-born Status</b>	<b>Canadian-born</b>				<b>Migrant</b>			
	18				36			
<b>Number of previous deliveries</b>	<b>Zero</b>	<b>One</b>	<b>Two</b>	<b>Three</b>	<b>Zero</b>	<b>One</b>	<b>Two</b>	<b>Three</b>
	10	5	3	0	15	16	3	2
<b>Type of immediate previous delivery</b>	<b>Vaginal Delivery</b>		<b>C-section</b>	<b>Unknown</b>	<b>Vaginal delivery</b>		<b>C-section</b>	<b>Unknown</b>
	1		7	0	5		14	2
<b>Current Delivery</b>	<b>Vaginal delivery</b>	<b>Planned C-section</b>	<b>Emergency C-section</b>	<b>Vaginal delivery</b>	<b>Planned C-section</b>	<b>Emergency C-section</b>		

<b>Outcome<sup>1</sup></b>	6	7	5		18	12	6		
<b>Age</b>	<b>10s</b>	<b>20s</b>	<b>30s</b>	<b>40s</b>	<b>10s</b>	<b>20s</b>	<b>30s</b>	<b>40s</b>	
	2	5	1	0	0	18	16	2	
<b>Birth Region</b>	<b>Canada</b>				<b>Europe</b>	<b>Africa</b>	<b>Latin America and the Caribbean</b>	<b>Asia</b>	<b>Unknown</b>
	18				2	10	2	21	1

*Participants – Migrant Women*

A total of 36 migrant women participated in the study, of which 18 delivered through a vaginal delivery, 12 through an elective C-section and 6 through an emergency C-section. Although participants originated from various geographic regions, most of our participants were born in Africa or Asia. All women currently reside in Canada except one participant who migrated to Canada specifically for the delivery. 15 migrant women were first-time mothers, while 14 migrant women had delivered previously through a C-section. Two clusters of migrant women emerged from the data based on occupation. One cluster consisted of migrant women who were highly educated (physicians, pharmacists, researchers), or had partners who were highly educated (senior consultants, respiratory therapist, pharmacist) or pursuing higher education. A second cluster consisted of migrant women who worked in housekeeping, retail, general labour or as administrative assistants. All except one were able to speak English fluently and express themselves.

*Participants – Canadian-born Women*

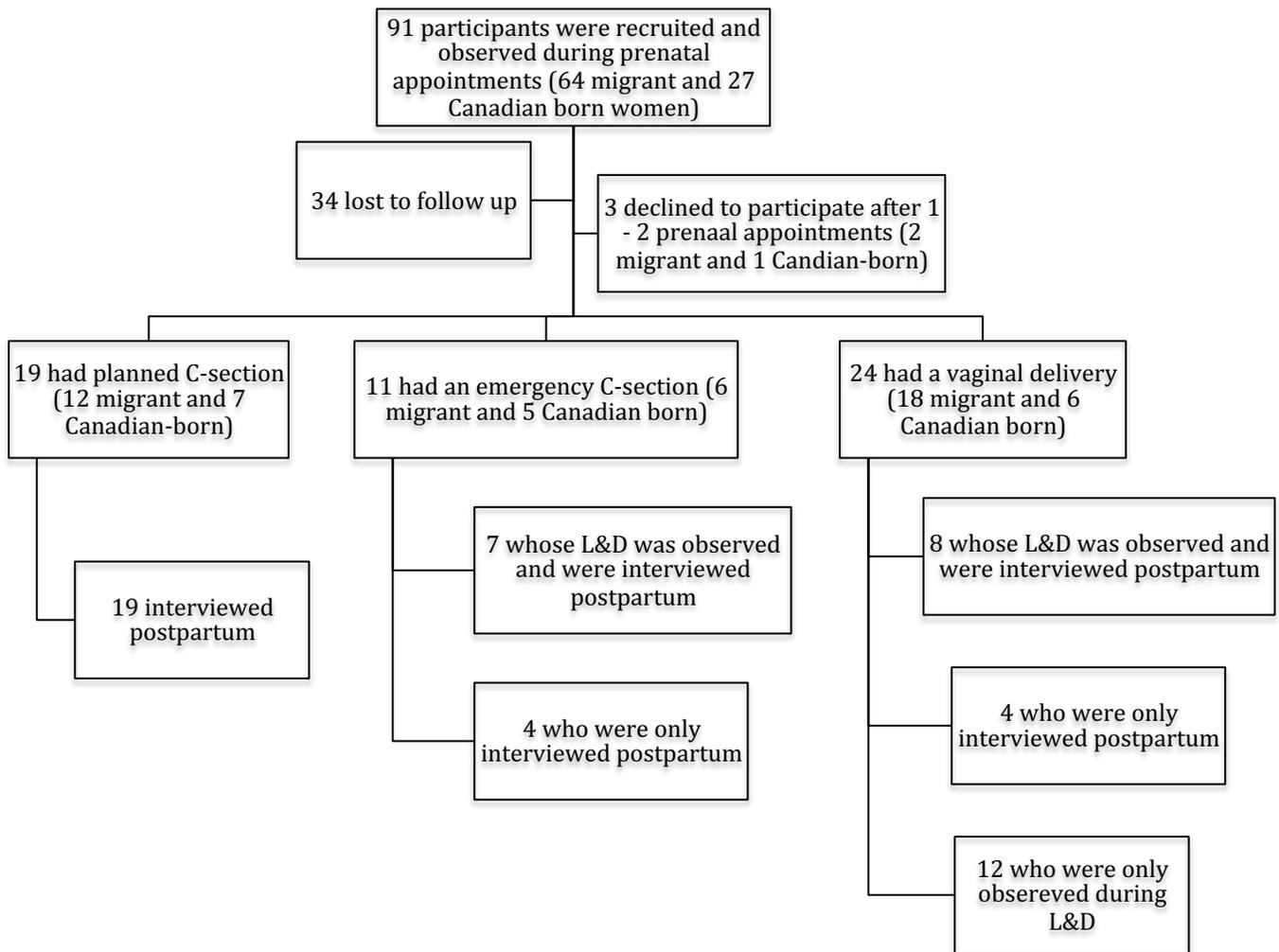
A total of 18 Canadian-born women participated in the study. 7 women delivered through an elective C-section while 5 women delivered through an emergency C-section. The remaining

<sup>1</sup> Planned CS was defined as a C-section, which was conducted before the onset of labor.

5 delivered vaginally. 10 of the women were first time mothers while 8 already had children. Of these women, 7 had previously delivered through a C-section while only one delivered vaginally. The occupation of participants varied including healthcare providers, allied health workers, administrative staff, hospitality workers and students.

### Data Collection Strategies

Data were collected over a 10-month period from March 2015 – January 2016, at three points in time: prenatal appointments, labour and delivery and the postpartum period. Specifically, data were collected using observation of patient-provider interactions at prenatal appointments and the labour and delivery process, while semi-structured in-depth interviews were conducted at the postpartum period. Figure 1 illustrates the data collection strategy,



including the number of deliveries observed and participants interviewed.

**Figure 2: Data collection strategy.**

*Observation*

A total of 162 observations of prenatal appointments were conducted between all 91 participants. Prenatal observations were conducted at the linked clinic from 8am – 5pm on weekdays and lasted between 2 – 10 minutes. Observations involved accompanying the obstetrician to the prenatal appointments of participants in appointment rooms, and silently observing patient-provider interactions.

A total of 27 observations were conducted for labour and delivery, with observations totaling approximately 150 hours. Observations were conducted in the labour and delivery ward of the teaching hospital, including both the assessment area and the delivery rooms of each patient. Observations took place at varying times of the day, depending on when patients arrived at the labour and delivery ward. Upon arrival of study participants, the labour and delivery staff alerted me through a phone call. Observations included accompanying the participants until the delivery took place, or the patient was taken for a C-section. This mainly involved sitting in the assessment and/or delivery room of the patient, often with family members while observing patient-provider interactions, and conversations among family members.

The focus of all observations was open-ended, however a particular emphasis was placed on C-section decision-making. Observations of verbal communication as well as non-verbal cues such as body language, mannerisms, attitudes, and reactions of patients, providers and family members were included. Written notes were taken on the interactions between patients and providers, activities, conversations, verbatim quotes and context, simultaneous to observations and were included for analysis.

During observations, I took a non-participatory role and ensured I was not influencing patient-provider interactions or the decision-making process (8). I did not engage in patient-provider interactions or direct patient care, and refrained from answering any medical questions,

or conversations about patient care. I participated in informal conversations when initiated by healthcare providers, participants or family members to build rapport (9). Building a trusting relationship with participants, and family members increased the ease of having open, transparent conversations during postpartum interviews.

### *Interviews*

A total of 44 interviews were conducted with 25 migrant and 18 Canadian-born women. Interviews were conducted primarily once with patients, while two patients were followed up for a second interview based on their initial responses. All interviews were conducted during the immediate postpartum hospital stay except three, which were conducted during their six-week postpartum visit. Interviews conducted during the immediate postpartum stay were conducted in private rooms, or semi-private rooms of patients, and once in the waiting area of the hospital. Interviews conducted during the six-week postpartum visit were conducted privately in patient rooms at the clinic. All interviews were conducted in English, except one, where a translator was utilized to facilitate the discussion. Interviews were conducted alone with the mother, unless she consented for family members to stay during the interview. 6 partners/husbands participated in the discussions. Each interview lasted an average of 30 minutes. The discussions were digitally recorded and transcribed verbatim.

The open ended interview questions included, ‘Tell me about your previous and current pregnancy and delivery in detail’, ‘How was the delivery method decided on, and who decided?’, ‘What factors were considered?’, ‘Did you feel comfortable in communicating your thoughts, and preferences?’, and ‘What information did you have regarding the delivery and where did you get it from?’. Additional questions for migrant women included, ‘How are C-sections regarded in your country of origin?’

### **Data Analysis**

A database of observation and interview data was created and managed using Quirkos. Data analysis occurred concurrently with data collection to identify patterns and determine areas for further exploration. Data were analyzed using latent content analysis. Data were coded to identify repeating concepts (4). Coded data was then grouped to create categories. Codes within

each categories are read, re-read and compared to ensure the overall fit and reflect the essence of the category and ensure internal homogeneity (4). Data was categorized iteratively over multiple phases as new ideas and concepts emerged. Themes were then identified to connect together concepts identified through categories (4).

### **Rigour**

Lincoln and Guba (10) developed a set of criteria to evaluate rigor in qualitative research (4, 10). Trustworthiness, a term used to replace rigour, is understood through the criteria of credibility, transferability dependability and confirmability (4). Credibility is used to assess whether the findings are an accurate representation of the participants and/or data, while transferability assesses whether the findings can be applied to other settings (4). Dependability is an understanding of the steps and decisions made throughout the research process, and confirmability is used in the data collection and analysis phase to ensure findings are logical (4).

In order to comply with the criteria for trustworthiness, multiple strategies were undertaken. Credibility was ensured through verification strategies such as member checking, thoroughly exploring negative cases, concurrent data collection and analysis and prolonged observation. Audit trails, and personal journaling, were specifically used to document the process of data collection and analysis and satisfy the requirements for dependability (4). Triangulation of observation and interview data was utilized to ensure congruency in the findings and check for confirmability.

### **Ethics**

Ethics approval was obtained from the University of Alberta Research Ethics Board as well as operational approval from Alberta Health Services. During the recruitment process, the consent forms were reviewed and all participants were informed of the voluntary nature of the study, the risks and benefits of participating, the ability to withdraw without penalty and guarantee of confidentiality of data collected. Written informed consent was obtained from participating women during recruitment while family members who participated in interviews provided written informed consent after the interviews.

All digital data, including recordings and transcripts were stored on a password-protected computer. Names of participants and healthcare providers were removed and data was anonymized during the transcription and data analysis process. All data will be stored in a locked cabinet in my supervisor's office in accordance to the University of Alberta ethics protocol upon completion of the research process.

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## Chapter 3: Manuscript #2

### To Have A Planned C-Section Or Not: Exploring The Decision-Making Experiences Of Migrant And Canadian-Born Women

#### ABSTRACT

**Background:** Globally caesarean section (C-section) rates are exceeding recommended ranges, placing women at higher risk for complications. Evidence suggests migrant women have higher C-section rates compared to Canadian-born women, highlighting an area of concern.

Contrastingly, the literature indicates women prefer to deliver vaginally leading us to question the degree to which women, especially migrants, participate in decision-making. Our study explored how decisions to have planned C-sections were made, including the roles of women and obstetricians, the factors considered, and whether migrant women's experiences differ from that of Canadian-born women.

**Methods:** A qualitative study using a focused ethnographic approach was conducted at a teaching hospital in Edmonton over a ten-month period. Migrant (N=64) and Canadian-born women (N=27) who had a higher risk of C-section were included. Data were collected through observation of prenatal appointments (N=162), and postpartum in-depth interviews (N=44). Written informed consent was obtained from participants and ethics approval was received from the University of Alberta.

**Results:** Our findings reveal decision-making processes to be similar between Canadian-born women and migrants, with women being the primary decisions-makers for most planned C-sections. While both groups' decisions were based on medical factors, socio-cultural factors such as lack of social support had a greater effect on migrant women's decisions. A group of migrant women chose to have planned C-sections in order to overcome these barriers.

**Conclusions:** Our findings suggest while migrant women are the primary decision-makers of planned C-sections similar to their Canadian-born counterparts, socio-cultural factors such as the lack of social support directly affect migrant women's choice for a planned C-section. There is a

need to address the socio-cultural factors that push migrant women towards a C-section in order to reduce overall C-section rates in migrant populations.

## **INTRODUCTION**

Caesarean section (C-section) deliveries are surgical procedures, conducted when there is a failure to progress in labor, or compromised fetal status (1). While considered life-saving procedures, they place women at higher risk for immediate complications, including infection, and longer-term consequences such as placenta previa, repeat C-section or life threatening uterine ruptures (2-5). Although the literature suggests only 10 – 15% of births should occur via C-section, intervention rates are continuously rising worldwide, with many exceeding the recommended range (6-9). A 2007 trend analysis of 22 industrialized countries reported 17 countries to have C-section rates greater than 20%, while only the Netherlands reported a rate that aligned with the World Health Organization recommended range (7).

C-sections can be classified as emergency or planned procedures. Emergency C-section decisions take place during labour and are often due to medical risks faced by mother and fetus. Planned C-sections are scheduled surgical deliveries due to both medical and non-medical reasons, and when decision-making takes place before the onset of labour (10). Medical indications include cephalopelvic disproportion, placenta previa, and breeched position of fetus, while non-medical reasons include maternal request (10,11). Planned C-sections are also provided as an option for women who have had a previous C-section, if they choose not to opt for a vaginal delivery after a C-section (VBAC), also known as a trial of labour (TOL).

Despite increasing rates of C-sections in industrialized countries, a large body of literature suggests women prefer to deliver vaginally (12-14). A study conducted in the United States found that 83% of women with a prior C-section and 93% of women without a medical indication for a cesarean delivery preferred to have a vaginal delivery (12). Similarly, in Sweden, two studies found an overwhelming majority of women to prefer a vaginal birth, with both concluding that women's preferences may offer limited explanations for rising C-section rates (13,14).

This leads us to question the degree to which women participate in decisions regarding delivery method. A few quantitative studies have shown women to have more involvement in the decisions to have planned C-sections compared to emergency C-sections (15-17). However, evidence also suggests that women do not participate fully in the decision to have a planned C-section. A Swedish longitudinal cohort study exploring the childbirth experiences of women who preferred and delivered by a planned C-section, compared to women who preferred and delivered via a vaginal birth, found women in the C-section group to be more dissatisfied with their opportunity to participate in decision-making (18). However, studies holistically exploring the extent of women's participation in planned C-sections are limited.

This issue becomes even more pertinent for migrant women in OECD countries. Globally, migrant women continue to experience high C-section rates (19-22). A small body of literature documents migrant women to have higher C-section rates compared to Canadian-born women, highlighting an area of concern in migrant health (20, 23-26). Studies exploring the maternity care experiences of migrant women have shown that although women often want to be involved in decision-making regarding their care, they continue to be reluctant when expressing their preferences, and have limited say (27-29). Although not specific to planned C-sections, Liamputtong (30) found that Vietnamese, Lao and Cambodian immigrants in Australia did not question the doctor's recommendation for a C-section, citing trust for doctors and their 'authoritative knowledge' (30). However, research specific to migrant women's experiences of planned C-sections remains limited. Further research is necessary to comprehensively understand the extent to which migrant women take part in planned C-section decision-making.

Our study aimed to explore how migrant women decided on their mode of delivery when a planned C-section was an option. We specifically wanted to understand who makes the decisions, the roles of obstetricians and women, what factors are considered, and whether migrant women's experiences are different from those of Canadian-born women.

## **METHODS**

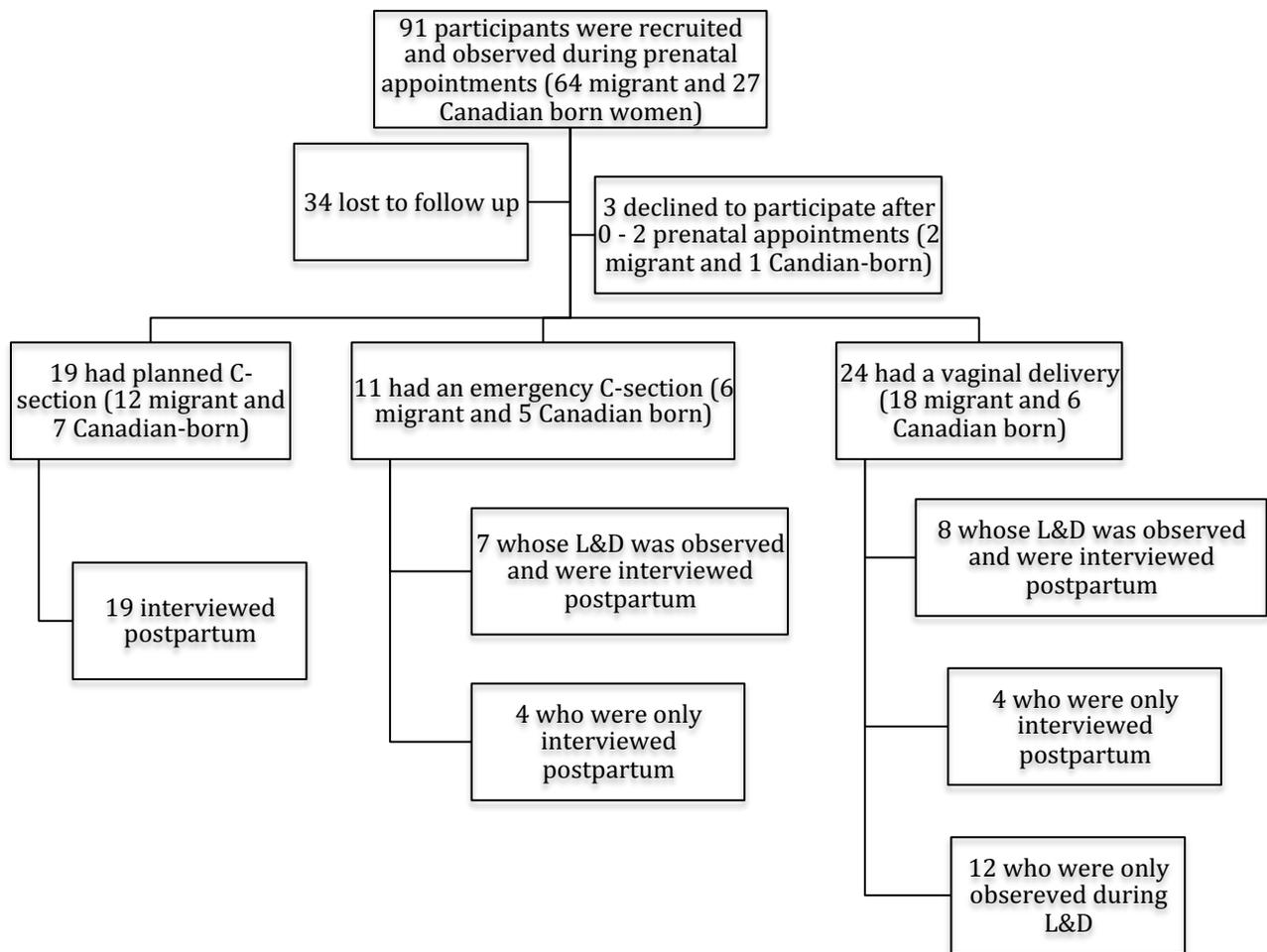
A focused ethnography was conducted to explore the experiences of migrant women during C-section decision-making. This qualitative method provides researchers with a better

understanding of participants' view of the world and allows us to understand "the cultural beliefs and practices that generate [the] observed behavior [of participants]," (31 p.9, 32).

Data were collected between March 2015 and January 2016 at a tertiary teaching hospital and a linked outpatient clinic in Edmonton, Canada. The hospital and clinic were selected based on the large migrant population they serve, and are located in the inner city region. Migrant women were defined as women who were born outside of Canada and had migrated to Canada after January 1, 2004. This included migrant women irrespective of country of origin and immigration status. Canadian-born women were defined as women who were born in Canada. Participants were purposively recruited to ensure a high probability of observing C-section decision-making. Given this, the inclusion criteria were restricted to nulliparous women, twin pregnancies, women who have had one or more previous C-section deliveries, and women pregnant with a large fetus. Participants were recruited at the clinic where attending obstetricians approached eligible women. Author 1 then followed up with interested women to provide information about the study. A total of 91 participants were recruited during prenatal appointments.

Data were collected at two points in time: prenatal appointments, and postpartum using semi-structured in-depth interviews and observation. Figure 1 illustrates the data collection strategy. Prenatal observations (N=162) lasting 2- 10 minutes were conducted in the obstetrician's offices. Each respondent was observed multiple times, (ranging from 1 – 5 prenatal observations) over the course of her pregnancy. Observations involved accompanying the obstetrician to the appointments, standing in a corner of the room and observing patient-provider interactions. The focus of all observations was open-ended, however particular emphasis was placed on C-section decision-making. Observations of verbal communication as well as non-verbal cues such as body language, mannerisms, attitudes, and reactions of patients, providers and family members were included. Notes were written simultaneously during observations and were included in data analysis. Author 1 took a non-participatory role when observing interactions and ensured she was not influencing the environment, including patient-provider interactions and the decision-making process. However she took part in informal conversations when initiated by participants, family members or healthcare providers to build rapport.

Interviews (N=44) were conducted with 25 migrant and 17 Canadian-born women. All women were primarily interviewed once while two women were followed up with a second interview for clarification. All interviews were conducted during the postpartum hospital stay except three, which were conducted during the six-week postpartum visit. The open ended interview questions included, ‘Tell me about your previous and current pregnancy in detail’, ‘How was the delivery method decided on, and who decided?’, ‘What factors were considered?’ All interviews were conducted in English, except one, where a translator was used to facilitate the discussion. Interviews were conducted alone with the mother, unless she consented for family members to stay during the interview. Six husbands participated in the discussions. Each interview lasted an average of 30 minutes. The discussions were digitally recorded and transcribed verbatim.



### **Figure 3: Data collection strategy.**

A database of observation and interview data was created and managed using Quirkos. Data were analyzed using latent content analysis, which occurred concurrently with data collection to identify patterns and determine areas for further exploration (33). Data were coded and categorized iteratively over multiple phases as new ideas and concepts emerged. Themes were then identified to connect concepts identified through categories (33). Triangulation of observation and interview data was utilized to ensure congruency in the findings (33). Verification strategies included member checking, concurrent data collection and analysis and prolonged observation (33).

Ethics approval was obtained from the University of Alberta Research Ethics Board and Alberta Health Services. Written informed consent was obtained from all participants, who were informed of the voluntary nature of the study, the ability to withdraw without penalty and confidentiality of data collected.

### **FINDINGS**

Our data identified two key themes that describe how our respondents decided on a mode of delivery when a C-section was provided as an option. Women were the primary decision-makers in most instances, while obstetricians provided information, support and time necessary for decision-making. No significant differences were found in the roles of women and obstetricians when comparing the experiences of migrant and Canadian-born women. While both migrant and Canadian-born women's decisions were based on a host of considerations including medical factors, socio-cultural factors such as lack of family support had a larger effect on migrant women's decisions.

#### ***Women as Primary Decision Makers For Planned C-Sections***

Our data show that a decision to deliver by a planned C-section was made during prenatal appointments. These discussions were held in three primary circumstances: i) when a planned C-

section was medically necessary, and a vaginal birth would place the mother or fetus at risk, ii) when a planned C-section was a potential mode of delivery due to reasons including, but not limited to previous C-section birth, previous uterine surgery and scarring and a large fetus, iii) when a planned C-section was requested by the mother.

When a planned C-section was medically necessary, both migrant and Canadian-born women stated that their obstetricians had recommended the C-section after explaining the risks associated with proceeding with a vaginal delivery. In such circumstances, the obstetrician often made the final decision. The women expressed that they were left with no choice other than to proceed with the doctor's recommendation.

*“P: That wasn't my decision, it's my doctors decision, because they say the pregnancy are too close, they can't give me baby like normally.” (P039 – Migrant mother who had a planned C-section)*

However, when a planned C-section was one of the potential modes of delivery, both migrant and Canadian-born women participated in discussions. Importantly, very often both groups of women made the final decision.

*“Interviewer: You know when the decision was made, do you feel like you were the one who kind of decided.. or do you feel that the doctors were the deciding ones?”*

*Participant: It's me. It's me because Dr. Howard at the end, she gave me her advice and I can take it or leave it but, it was me who make the decision” (P056 – First-time migrant mother who decided to have a planned C-section)*

The decision-making process in these situations was very similar between migrants and Canadian-born women. The only noticeable difference was the differing levels of consultations mothers had with family members. Both migrant and Canadian-born women consulted with their husbands. However, Canadian-born women did not involve extended family members, while migrant women often discussed their delivery options with their mothers, aunts, and even larger

familial networks. One migrant woman highlighted the importance of having her family's support during decision-making, especially given the limited social support she had after migrating.

*P: So yah, I should tell them, I should tell them that I will be subject to the c-section, because they [are] family I need their support yah.... because.. as a person, I can't stay lonely all the time, or with my.. husband only. I need support from my relative, my friends. (P016 – First time migrant mother who had a planned C-section because of a large fetus)*

We observed only two instances where women requested a C-section without a medical indication. One woman was a migrant and the other Canadian-born. In both instances, the attending obstetricians counseled the women on the risks of a C-section. But the women had made up their minds, with one adamantly stating she always knew if she were going to have a baby it would be through a C-section. In the end, one physician declined the request and transferred the patient to another provider who was willing to provide the procedure on demand.

### ***Physicians are Providers of Information and Support***

While women made the final decision regarding whether to deliver by C-section or not, physicians played a significant role by providing medical information around the procedure including the risks and benefits of C-sections and vaginal deliveries. In some instances physicians provided their medical expertise as to which mode of delivery was the best, but left the final decision to the patient. Respondents, both migrant and Canadian-born, reported genuinely being given the option to decide and their preferences respected, without any push or coercion from their physicians.

*"P: Yah she just said it's our choice. Whatever we want to do, we can just go ahead and do it so. We did it according to our choice, but she never said anything yah." (P012 – A migrant mother who chose to have a planned C-section after a previous emergency C-section)*

Both groups of women considering a planned C-section were afforded with the luxury of time to reflect upon the doctors' information, recommendations and their own personal

preferences. They often had weeks or even months to deliberate their decisions and were provided with multiple opportunities to ask questions, assess their situation, and decide on the best course of action. However, we observed both migrant and Canadian-born women struggled with making the final decision. They often changed their minds between a C-section and vaginal deliveries. Obstetricians were understanding of the women's hesitancy and indecisiveness, and accommodated their changing preferences.

*“Obstetrician: I'm just booking [the C-section] in, just in case. If you labour naturally before this date, then you can try for a vaginal delivery, otherwise we will proceed with a C-section on this date. Does that sound like what you want to do?”*

*Mother: Sometimes I want to go natural and get it over with, and sometimes I want to go C-section.*

*Obstetrician: You have two weeks for you to decide. If by the surgery date you don't want a C-section, we can induce you, but we need a plan by that date” (Observation of a conversation between obstetrician and a migrant mother, who was deciding between a VBAC and planned C-section)*

### ***Women Consider Both Medical And Social Factors***

#### ***Medical Factors***

The pivotal factor and driving force for a planned C-section were medical indications. For both groups of women, mother's and baby's well-being trumped all other preferences. When a physician recommended a C-section based on medical reasons, most patients heeded the obstetrician's advice, often without any questions asked. In general, both migrant and Canadian-born women selected the mode of delivery which would have the least risk of complications. For example, women with one previous C-section are often candidates for a trial of labour (VBAC). However, the obstetricians considered this option to be more risky for migrant women who had previous C-sections in their country of origin. Often there were no medical reports of the C-section incisions. In such cases, the obstetricians strongly recommended, and migrant women often opted to deliver by a “less risky” planned C-section. Although these women were aware of the risks of a C-section surgery, they preferred the surgical risks compared to potential labour complications which could affect the baby.

*“It seemed like more complicated anyways so.. and I know, you know risking.. having the higher risk of uterine rupture.. so umm.. it just seemed like that was the more easier, the better choice or the simpler choice.” (P066 – Canadian born mother who was pregnant with twins, who previously delivered two sets of twins through C-sections)*

*“So I don’t want to subject my baby to the any dangers... So I choose to be on safe side, and decided that C-section is better for me, even though there, it’s like pain and cutting..” (P016 – First time migrant mother who had a planned C-section because of a large fetus)*

### ***Social-Cultural Factors***

Our data suggests socio-cultural factors played an equally important role in the decision to deliver by C-section. Previous delivery experiences, length of recovery and lack of social support were the three key factors that affected women’s decisions on mode of delivery, although they varied in importance for migrant and Canadian-born women.

#### *Previous Delivery Experience*

Mothers, both migrant and Canadian born, who had previously experienced long and strenuous labour which ultimately resulted in emergency C-sections did not want to undergo a similar traumatic experience again. They saw a planned C-section as a more straightforward option. Similarly, women who previously had positive C-section experiences as a pain-free smooth process wanted to repeat the experience. Some first-time mothers cited the positive experiences of women in their social networks as a reason for seeking C-section births.

*“ I’ve listened to my friends’ experiences. I’ve listened to people who did C-section, and people who didn’t [have a C-section] and obviously, the people who didn’t, they were more traumatized.” (P072 – First – time migrant mother who chose to have a planned C-section)*

#### *Lack of Social Support*

A lack of social support emerged as an important factor in women’s decision to deliver by C-section. This was especially true of migrant women most of whom lived alone with their husbands, and did not have family to assist them during labour and delivery, or the postpartum

period. Some migrant women avoided C-sections because they had other young children and could not take away the longer time needed for recovery from a C-Section and the longer hospital stay. However, another group of migrant women expressed a preference for planned C-sections. These women capitalized on an opportunity to plan and control an otherwise spontaneous event, and fill in their gaps in social support. Through the scheduled delivery, women and their husbands could plan their postpartum stay, time off work, and arrange childcare. One migrant respondent even changed her original plan of having a VBAC to a planned C-section when her mother from abroad could not arrive in time to support her during delivery. Another migrant woman admitted that knowing the date of the planned C-section assisted in planning the arrival of her mother from India to assist with childcare.

*"P: With this, we could plan our time, when we want to. We know, okay we are coming on May 1st, we are going home on May 3rd, you know. That was good because we could plan our thing, especially when your family is not around, you need to make sure that you know everything is on the right track." (P012 – Migrant mother who chose to have a planned C-section for her second pregnancy)*

#### *Avoiding Pain, Scarring and Vaginal Tearing*

A small group of only migrant women reported avoiding pain as a factor in their decision to deliver by C-section. This group of women was of the opinion that vaginal births were more painful than a birth by C-section. Some were concerned about tears and scarring associated with vaginal deliveries, with one respondent expanding on her concern on how the tear could impact her sex life.

*Participant: Cause I'm going to have to go through pain twice" (P035 – Migrant mother who chose to have a planned C-section for a second delivery)*

## **DISCUSSION**

The objective of our study was to understand how migrant and Canadian-born women decided on their mode of delivery when given the option of a planned C-section and whether

there are differences based on migration status. We specifically aimed to explore the roles of mothers and obstetricians in making the decision for women's delivery by a planned C-section.

Overall, our findings reveal no major differences between migrant and Canadian-born women, and their role in decision-making around planned C-sections. When a C-section was medically necessary, both groups of women described that their obstetricians made the final decision. In cases when a medical indication was not present, our findings show both migrant and non-migrant women actively participated in the decision-making and in fact in this setting they took on the role of primary decision-makers. Women's active participation in decision-making around planned C-sections has been reported in the literature, but these studies only explored non-migrant women's involvement. A few studies that have explored migrant women's general experiences of maternity care (not specifically focused on C-sections) report lower levels of participation or lack of assertiveness in expressing their preferences (27-29,34). To the best of our knowledge our study is the first to report that migrant women in Edmonton play an active and leading role in deciding whether or not to deliver by a planned C-section.

When birth by C-section was optional, our research shows physicians played a prominent role in providing information on the risks and benefits of each mode of delivery whilst leaving the final decision in the hands of the women. This was especially evident when women were deciding between a VBAC and a repeat C-section. This practice aligns with the policy consensus in high-income countries and the Society of Obstetricians and Gynecologists of Canada's (SOGC) guideline for a Vaginal Birth After Previous Caesarean Birth, which recommends that a trial of labour (TOL) be offered with appropriate discussion of risks and benefits but also provides women the opportunity to opt for a repeat caesarean section (35-37). The findings also indicate the importance of the healthcare provider's role in actively listening to migrant women who may otherwise be reluctant to express their wishes and concerns. Clearly, listening and sharing information greatly enables migrant women to actively participate and make the final decision about birth modalities.

There is a public perception that women are demanding C-sections for convenience or because they are too 'push to push' (38,39). Our research provides a more nuanced

understanding of this phenomenon. It seems previous traumatic birth experiences were a key factor for women, who often had emergency C-sections after prolonged ineffective labor, because they did not want to repeat the experience. For migrant women in particular, lack of social support emerged as an important factor leading to requests for a planned C-section. These findings are important as they have strong implications for the provision of maternity care to migrant women. Although many studies have cited the absence of social support in the maternity experiences of migrant women, most considered the resulting isolation and loneliness rather than how women overcame these barriers (28,40,41). Our study has contributed to this body of literature by showing how migrant women actively responded to this lack of social support by choosing to deliver by C-section. It also suggests an explanation to the reasons underlying the higher C-section rates amongst migrant women in Canada (20,23-26). Given that current global discussions on C-sections, particularly for migrant women, have been centered on rate reduction, it is significant that our research suggests there may be a need to pay attention to and address the socio-cultural factors that push migrant women to seek C-sections.

The study has some limitations, including loss to follow up. Earlier in the data collection phase, communication barriers between the hospital's research department and the labour and delivery department resulted in Author 1 not being consistently alerted of participants' arrival for delivery. Once the communication barriers were addressed, loss to follow up dramatically decreased. Another limitation is the selection bias associated with the participant pool. The research team was limited to recruit from a clinic that only provided service in English, and did not provide translation services. As a result, almost all the participants communicated in English. Therefore, our respondents may have had fewer difficulties communicating their preferences, and may not be representative of the larger migrant population. A final limitation of this study is the possible impact of the Hawthorne effect. The Hawthorne effect occurs when a participant's awareness of being studied impacts their behavior (42). Since both the obstetricians and the women were aware that their interactions were being observed, the Hawthorne effect suggests that these participants could have acted differently based on the presence of the researcher during prenatal appointments. The Hawthorne effect would have been mitigated by prolonged observation (10 months), which normalized the presence of the researcher, and by examining the phenomenon of interest through different data collection strategies.

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## **Chapter 4: Manuscript #3**

### **Power And Knowledge: Understanding How Migrant Women And Canadian-Born Women Participate In C-section Decision-Making**

#### **ABSTRACT**

**Background:** Research in Canada indicates migrant women to have higher rates of caesarean sections (C-sections) compared to Canadian-born women. Communication barriers have been cited as potential contributing factors. However, the complexities of patient participation in decision-making have not been well explored in migrants, especially in the context of labour and delivery (L&D). The present study aims to understand migrant women's ability to make decisions during L&D including C-section decisions, whether they differ from the experiences of Canadian-born women, what barriers limit participation, as well as if and how women are able to overcome these barriers.

**Methods:** A qualitative study using a focused ethnographic approach was conducted at a teaching hospital in Edmonton over a ten-month period. Migrant (N=64) and Canadian-born women (N=27) who had a higher risk of undergoing a C-section were included. Data were collected through observation of prenatal appointments (N=162), L&D observations (N=27) and postpartum in-depth interviews (N=44). Written informed consent was obtained from participants and ethics approval was received from the University of Alberta.

**Results:** Participation experiences were similar between both groups, including barriers faced. Power imbalances, such as the institutional authority of providers and limited sharing of information, restricted participation in decision-making. However, 'expert patients' consisting of migrant and Canadian-born women, overcame these barriers using privileged knowledge about obstetrical interventions available and learned ability to exercise patient rights.

**Conclusions:** Our research suggests that participation does not differ between migrant and Canadian-born women due to migration status but rather due to the exclusivity of information on

patient rights and care that can be requested or declined. Further research is needed to explore these factors and their impact on migrant patients' ability to participate.

## **INTRODUCTION**

Research in Canada generally shows migrant women to have higher rates of C-sections compared to Canadian-born women (1-4). Using national data from the Canadian Maternity Experiences survey, Mumtaz (5) reported newcomer women in the Prairie provinces of Alberta, Saskatchewan, and Manitoba to be significantly more likely to report a C-section delivery for their most recent birth compared to Canadian-born women (36.1% vs. 24.7,  $p=0.02$ ) (5). Likewise, in Toronto, foreign-born women were reported to have a higher likelihood of delivering by C-section compared to Canadian-born women (2). Similar findings were reported by Kandasamy (4), where refugee women in Toronto reported significantly higher rates of C-sections compared to non-refugee women (36.5% vs. 22.9;  $p=0.014$ ) (4).

The literature, including an international systematic review on C-section rates in migrants, identifies a number of risk factors related to why migrant women have higher C-section rates, including older maternal age, maternal country of origin, poor maternal health, feto-pelvic disproportion, low socio-economic status, lack of prenatal care and communication barriers (1,6,7). Communication, particularly language barriers, have been cited as one key obstacle (7). However, some researchers argue that communication barriers go beyond simple language barriers and include multiple aspects of patient-provider interactions (8-10). Cultural norms and behaviours as well as role expectations are believed to play an important role in migrant patients' interactions with providers including, who is involved in obstetrical decision-making, what is expected from each party and whether certain decision-making approaches are appropriate (11). According to Hoang (12), Asian cultural expectations of reticence in expressing needs or asking for services prevented migrant Asian women in Tasmania from accessing maternity information and services that were available (12). Similarly, studies from Australia and United States revealed migrants' trust in and deference to providers and their expertise affected the decision-making experiences of migrant cancer patients (13-14).

However, very few studies have explored the role of healthcare providers and the health system in preventing migrant women from participating. A small body of literature suggests the health system structures and processes do not engage patients meaningfully (8-10, 15). For example, an Australian study exploring the maternity care experiences of Vietnamese, Turkish and Filipino women found women felt deprived of having an active say in making decisions and were dissatisfied with their intrapartum care (10). A systematic comparative review of immigrant and non-immigrant experiences of maternity care across five industrialized countries similarly found women reported a lack of adequate information shared on existing care options, and an active say in decision-making (15). Other studies from Australia and Canada echo these findings in which women reported dissatisfaction with the information provided (8,9).

Missing in this body of literature, however, is the role of power and how power imbalances between patients and providers may underlie migrant women's inability to participate in decisions about their care. An analysis of the Canadian Maternity Experiences Survey data showed that although rates of recommendations for C-sections by physicians were equal in both newcomer and Canadian-born women, newcomer women had a 36% C-section rate compared to 25% amongst Canadian born women (5). The authors allude to the possibility of differential abilities to discuss and negotiate physician recommendations between the two groups. Patients' perceptions of power have been shown to have an important role in their ability to negotiate care (16-19). Power is described as possession of control, authority, influence over others, and access to legitimate areas of knowledge (16). It is well documented that providers have greater power than patients due to their authoritative knowledge and professional role (17,18). This however, has also created power imbalances, which providers draw upon for their benefit (17 – 19). For example, Oudshoorn (17) and Henderson (18) have shown that nurses created power imbalances by restricting patient access to information and, ultimately, patients' ability to participate in decision-making regarding their care. We argue these power imbalances between patients and providers are particularly crucial for immigrant women in Western countries given their vulnerability.

The vulnerability of migrant women is especially compounded during pregnancy and childbirth (7). Little is known to date of power imbalances between migrant pregnant women and

providers, especially in the context of labour and delivery. The present study aims to fill this gap in knowledge. Its objective is to understand migrant women's engagement in decision-making regarding C-section as a mode of delivery. The research questions were: (i) to what extent do migrant women participate in making C-section decisions, and do their experiences differ from those of Canadian-born women; (ii) what are the barriers limiting participation; (iii) are women able to overcome these barriers, and if so how?

## **CONCEPTUAL FRAMEWORK**

We drew upon theories of patient provider relationships, specifically that of physicians, patients and the role of power. Patient-provider interactions take place within the larger social structures of medical settings, where institutional order and the authority of providers ultimately create and sustain power imbalances (20). Medical interactions between patients and providers are innately asymmetrical due to medical knowledge, technical expertise and professional prestige of the former, and lack of in the latter (20,21). Power is closely related to knowledge and in medical contexts providers act as gatekeepers to information, and healthcare services (20,22). In some cases, patients' dependence on providers for information creates a position of subordination (21,23). Institutional authority allows providers to ask questions, establish the agenda, and control the discussion in most interactions (24,25). In some contexts, it restricts patients from arguing, or debating providers' advice, thereby impacting overall participation in medical decision-making (24). The institutional authority of healthcare providers and the exclusivity of medical knowledge thus allow power imbalances to be institutionalized in medical settings.

## **METHODS**

A focused ethnography was conducted to explore "the cultural beliefs and practices that generate observed behavior" and provides a better understanding of the participants' view of the world (26 p.9, 27). Data were collected over a 10-month period between March 2015 and January 2016 at a tertiary teaching hospital and a linked outpatient clinic in Edmonton, Canada. Both the hospital and clinic are located in the inner city region, and were selected based on the large migrant population they serve.

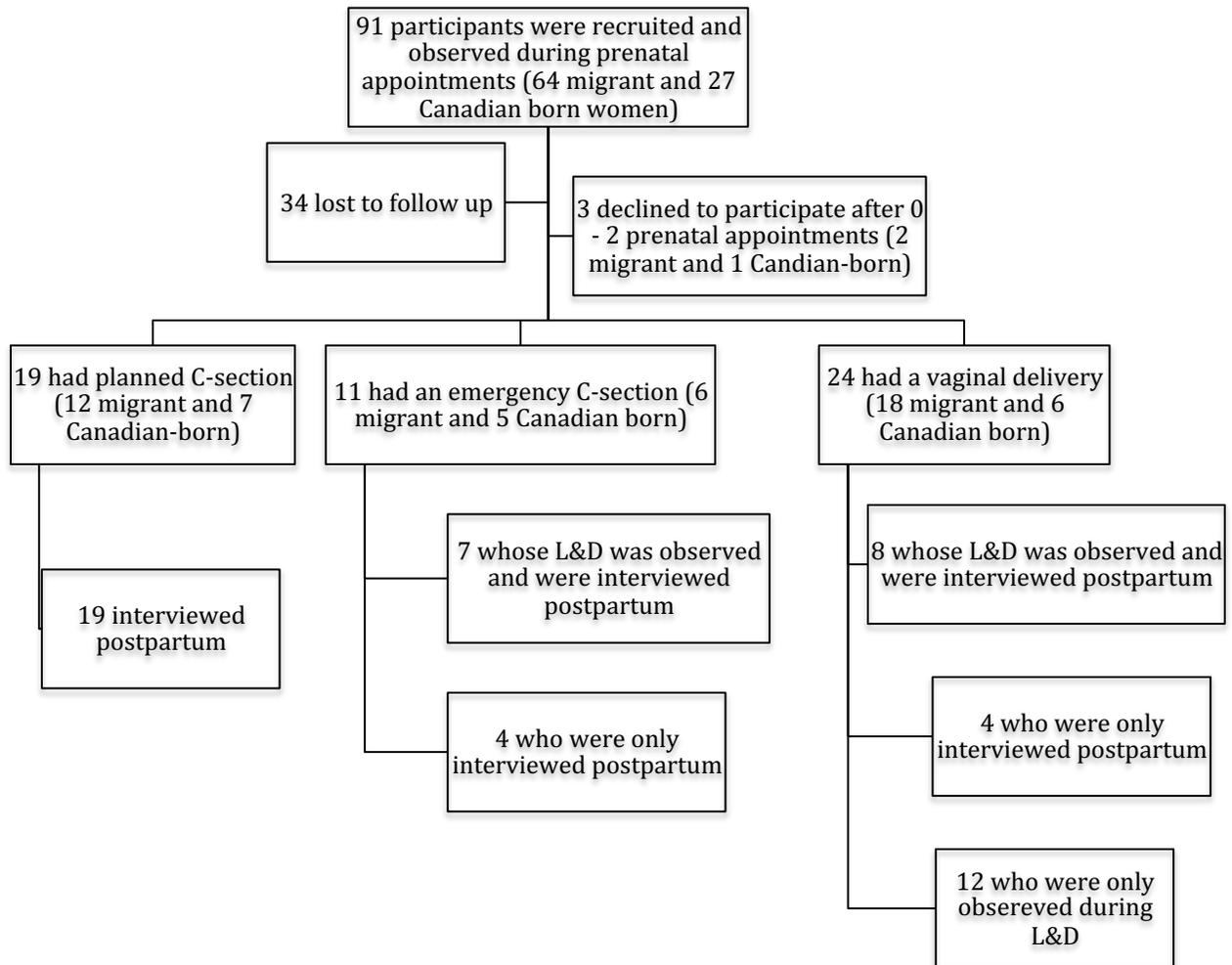
Migrant women were defined as women who were born outside of Canada and had migrated to Canada after January 1, 2004. This broad definition allowed the inclusion of all migrant women, irrespective of country of origin and migration status. Canadian-born women were defined as all women who were born in Canada. Participants were purposively recruited to ensure a high probability of observing C-section decision-making. Eligibility criteria were restricted to nulliparous women, twin pregnancy, women who have had one or more previous C-section deliveries, and women pregnant with a large fetus. Respondents were recruited from the outpatient clinic during prenatal appointments. Obstetricians approached potentially eligible women to inquire their interest in participating in the study. Author 1 followed up with interested women, providing information about the study.

Data were collected at three points in time: prenatal appointments, labour and delivery and postpartum. Observation and interviews were key data collection strategies. Figure 1 illustrates the data collection strategy. A total of 162 prenatal appointments for 91 participants and labour and delivery for 27 participants were observed. Prenatal observations were conducted in the obstetrician's offices and lasted 2 – 10 minutes. Labour and delivery observations were conducted in assessment and delivery rooms. Author 1 was alerted when a study respondent arrived at the hospital where she accompanied participants until they delivered or were taken for a C-section. Observations were conducted around-the-clock for a total of 150 hours.

The focus of all observations was open-ended, however a particular emphasis was placed on C-section decision-making. Observations of verbal communication, including conversations as well as non-verbal cues such as body language, mannerisms, attitudes, and reactions of patients, providers and family members were included. Written notes were taken simultaneously to observations and were included for analysis. Author 1 took a non-participatory role when observing interactions, and ensured she was not influencing the environment, including patient-provider interactions and the decision-making process. However, she participated in informal conversations when initiated by participants, family members and providers to create rapport.

A total of 44 interviews were conducted with 25 migrant and 17 Canadian-born women. All interviews were conducted during the postpartum hospital-stay except three, which were

conducted during their six-week postpartum visit. The open-ended interview questions aimed at mothers' perceptions of their participation in decision-making regarding mode of delivery. Questions included, 'How was the delivery method decided on, and who decided?', 'What factors were considered?', and 'Did you feel comfortable in communicating your thoughts, and preferences?'. All interviews were conducted in English, except one, where a translator was utilized to facilitate the discussion. Interviews were conducted alone with the mother, unless she consented for family members to stay during the interview. Six partners/husbands participated in the discussions. Each interview lasted an average of 30 minutes. The discussions were digitally recorded and transcribed verbatim.



**Figure 4:** Data collection strategy.

A database of observation and interview data was created and managed using Quirkos. Data analysis occurred concurrently with data collection to identify patterns and determine areas for further exploration. Data were analyzed using latent content analysis including iterative coding and categorization over multiple phases as new ideas and concepts emerged (28). Themes were then identified to connect together concepts identified through categories (28). Triangulation of observation and interview data was utilized to ensure congruency in the findings (28). Verification strategies included member checking, concurrent data collection and analysis and prolonged observation (28).

Ethics approval was obtained from the University of Alberta Research Ethics Board and Alberta Health Services. Written informed consent was obtained, and all participants were informed of the voluntary nature of the study, the ability to withdraw without penalty and confidentiality of data collected.

## **FINDINGS**

Our research revealed three themes related to participation of migrant and Canadian-born women in decision-making during labour and delivery.

- 1) Participation experiences were similar between migrant and Canadian-born women, including barriers faced and the ability to overcome these.
- 2) Patient-provider power imbalances posed as barriers and prevented both migrant and Canadian-born women from participating in decision-making. These included: the institutional authority of providers, lack of opportunity to participate, limited sharing of information and communication barriers specific to migrant women.
- 3) ‘Expert patients’, both migrant and Canadian-born women, overcame power imbalances because they had access to privileged knowledge.

### ***Migration Status Does Not Affect Participation Experiences***

Our data suggest migrant respondents had similar experiences when participating in labour and delivery decision-making compared to Canadian-born women. Participation levels

varied similarly in both groups. Some migrant and Canadian-born wanted to be and were actively involved in making decisions around their maternity care. These women were often assertive and frequently discussed with providers on the next steps as well as risks and benefits of interventions. In contrast, some patients were observed to play a more passive role. They quietly listened to their physician's recommendations and allowed them to make all the decisions. Migrant women who were passive indicated this was due to the medical expertise of providers' in comparison to their own lack of medical knowledge. This often led to an attitude of significant trust for providers who were perceived to '*know better*', and their decisions considered to be '*safe*'. Although one Canadian-born women expressed similar trust in physician recommendations, some specifically differentiated between the recommendations provided by their primary obstetrician, in comparison to that of the obstetricians or residents on-call. These women felt they could trust their primary obstetrician's recommendation, without doubt, due to previously established rapport.

Overall, our findings reveal no significant differences in the ability of our migrant respondents to participate in decision-making in comparison to Canadian-born women. Apart from the communication barrier faced by migrant women, both groups' ability to participate was restricted by similar power imbalances.

### ***Power Imbalances As Barriers To Participation***

Our data suggested power imbalances between providers and patients restricted our respondents from participating in decisions about their care. These imbalances were experienced similarly by both migrant and Canadian-born women. They were created and expressed through the institutional authority held by providers, the limited opportunities for both migrant and Canadian-born patients to participate and the limited sharing of information. However, migrant women faced an additional communication barrier.

A small group of respondents, both migrant and Canadian-born, reported that the authority held by providers affected their interactions and ability to participate in decision-making regarding their care. This was most evident when there were stark differences between physician

recommendations and patient preferences. In these situations, both groups of participants felt pressured to listen to provider recommendations and an inability to express their dissent. A few migrant participants, however did not question physician recommendations, stating that reticence stemmed from God-like perceptions of physicians. Other participants, both migrant and Canadian-born felt unable to engage as they perceived providers to be unreceptive to their concerns, lacked compassion, and were more interested in rushing them during the labour and delivery process. One woman described these experiences to be heightened when interacting with residents, who criticized her previous decision to have a planned C-section.

*“And... it felt like she was sort of disregarding my pain by saying, well yeah you’re in labour and like this is part of the natural progression but then I was like well it’s distracting me from doing what I need to do to get baby out. It’s that bad. And then the doctor came in and he was like all you’re doing is grunting..” (P091 – Canadian-born woman who delivered vaginally, referring to a Staff Member)*

We observed women, irrespective of whether they were migrant or Canadian-born, were not always given the opportunity to participate and express their preferences. In a few instances, providers controlled interactions by leading one-way conversations. As a result patients were told what to do and what subsequent steps would be taken, rather than discussing the options available. Although patients expressed frustration during these situations, in some cases, they remained silent in order to avoid conflict.

*“..my opinion has always been to.. to inform and maybe question or challenge as POLITELY as possible, but when our professionals don’t give us the option to have a conversation, and then we don’t want to have an argument so we just listen so. Ideally we would like to have a conversation.” (P045 – Husband of migrant women who had an emergency C-section)*

In a few occasions, we observed providers actively chose to limit the information they shared with women, especially during the possibility of an emergency C-section. Irrespective of migrant status, information regarding a C-section was only shared when requested, while definite

answers were not always provided. Some respondents stated providers only informed them of the possibility of a C-section at the last minute.

*“And the thing that I thought was odd, because they ALL KNEW because I remember my nurse telling me that... this physician on call and the charge nurse were yelling at her because they, she gave me some tea and that they all knew that I was going to be going for this C-section and she should have known too and it’s just like... so basically this is ALL happening without me involved in it.” (P081 – Canadian-born mother reflecting on her previous emergency C-section)*

A few participants felt the information they were provided regarding inductions or epidurals was not comprehensive. We observed providers tended to persuade women into complying by focusing on the complications which could arise if patients did not heed their advice. Alternatively, some providers normalized procedures such as the use of an epidural by stating it as ‘common’. Without adequate information, women were unable to express preferences and make informed decisions. One migrant woman stated that had all information been shared with her during her previous delivery, she would have altered her decision to wait before accepting a C-section recommendation.

One aspect which heightened patient-provider power imbalance only for migrant women was their ability to communicate their needs and preferences in English. Although all the participants, except one, were able to speak in English, we observed migrant women to have more difficulty communicating with providers during labour and delivery. Even when women participated, they did not fully comprehend the situation as illustrated in the example below:

*Obstetrician: We can help you using forceps. Are you okay with that? (Repeated a few times by both obstetrician and nurses)*

*Obstetrician: With forceps 90% is you doing work, we help guide. We have to make a cut so there is no tear*

*Patient: Yes*

*Obstetrician: Options are you pushing with forceps or C-section. If you're tired, then we can help.*

*Obstetrician double checks with husband to see if he is ok with forceps as well.*

*After obstetrician leaves, patient asks husband: C-section?*

*Husband: No forceps. If forceps don't work, then C-section (Observation of migrant P030's labour and delivery)*

### ***Power And Knowledge To Negotiate Care***

Although all women expressed difficulty in navigating conversations when their preferences did not align with provider recommendations, a group of both migrant and Canadian-born participants were able to maneuver these complexities. These 'expert patients' had in-depth knowledge about various interventions available, and had learned to exercise their rights as patients. They knew their rights as patients, and were aware of their own personal power. They questioned providers, sometimes declined provider recommendations and requested care that aligned with their own preferences. Most of these women were willing to negotiate with providers, with a minute sub-group even willing to 'fight' for their preferences. This group of both migrant and Canadian-born women were often resolute in their decisions and were not willing to reconsider unless a serious risk of harm was present.

*"H: ...and then finally after six hours they walk in like, 'oh so the plan is to rupture membranes and start you with oxytocin' and we're like 'No. That's not the plan', so then the nurse just said, 'Okay'. She walked out and talked to the doctor and then they came in and like, 'Ok, these are your options you kind of have, what would you like to do,' and we're like 'Nobody talked to us about it. We talked about rupturing the membranes but never talked about ANY drugs'" (P023 - Husband of migrant woman who had a vaginal delivery)*

In some cases, the women, particularly Canadian-born, drew upon doulas and nurses to advocate on their behalf. When an on-call physician recommended the use of a vacuum in an abrasive manner, one patient looked to her nurse for support and stated,

*“...that’s why I said to <the nurse>, well I don’t want to use a vacuum and she said we’re not going to use one. So that made me feel better and made me feel like empowered again and made me feel like I could gain control over this situation again from my point of view, and from where I was coming from.” (P091 - Canadian-born mother who delivered vaginally)*

Many participants, both migrant and Canadian-born, had researched in-depth about the labour and delivery process, interventions offered and the type of care they wanted. Information had been sought from peer-reviewed literature, physicians, doulas and midwives in order to have a detailed and comprehensive understanding about the risks and benefits of various interventions. Participants were also aware that providers’ opinions regarding various interventions, including Vaginal Birth after C-sections (VBAC) and planned C-sections differed and therefore pursued second opinions or found providers who were willing to accommodate their preferences.

Our data suggest our respondents’ awareness of patient rights, ability to negotiate during decision-making, and confidence in their demands were located in privileged knowledge, which was, however, not universally accessible. The information was acquired either due to a close proximity with the healthcare system or through previous healthcare experiences. Women who were healthcare providers themselves, or had family members who were providers drew from medical knowledge, and their own experiences working in inter-professional healthcare settings. Others drew upon their lived experiences from past deliveries or encounters within the healthcare system. Through these experiences, women learned to not only question providers but also learned to request the care they wanted.

*“Well, when a physician says something, you really can’t question that, that’s the way it is. And I think that.. I’m afforded .. a different perspective because I have been able to, within my work life, question them...Prior to being in the medical community, I wouldn’t have been able to, it would just be whatever you say goes, you’re the doctor.” (P081 – Canadian-born mother, who is a healthcare provider)*

## **DISCUSSION**

The objective of our study was to understand the role of power and if power imbalances between patients and providers may restrict migrant women's ability to participate in making decisions regarding their care. Although patient participation is a well-researched topic in other areas, such as breast cancer treatment, asthma, and osteoporosis, few studies have examined the topic in migrant women's labour and delivery experiences (29-32). None focus on power imbalances (12,33-35). Our study is, to the best of our knowledge, the first to explore and compare the role of power and power imbalances between providers and patients as experienced by migrant women regarding labour and delivery in Canada.

A key finding of our study is that there are no major differences in patient-provider imbalances experienced by migrant compared to Canadian-born women. A large body of literature, both from Canada and other immigrant-receiving Western countries, has shown migrant women have higher C-section rates (1-5,7). We had argued previously that these differences were possibly due to migrant women's inability to negotiate physician recommendations. However, our in-depth qualitative study shows there are no differences between the experiences of migrant and Canadian-born women. Both groups of women experience similar power imbalances, with migrant women experiencing communication challenges even when they could ostensibly speak English. More importantly, migrant women were as likely to negotiate the care they wanted and maneuver patient-provider interactions, as were Canadian-born women. This included requesting, declining care and asking for more information.

The literature has largely described migrant women to have little say in maternity care decision-making due to multiple reasons including patient and cultural characteristics such as passivity, and reticence (12,35). Furthermore, the literature largely homogenizes the communication barriers faced by migrant women as due to poor command over English (10, 36). However, our findings reveal that the ability to participate in decision-making is much more complex than language proficiency. It is the institutionalization of power which plays a larger role. Healthcare settings are inherently asymmetrical in nature due to medical hegemony, and the

resultant power given to medical professionals (21). Physicians are often privy to knowledge regarding medical routines, procedures and information on changing maternal and fetal status that is not always available to laboring women. Therefore this hierarchic distribution of knowledge and subsequent hierarchic division of decision-making provides physicians with control over patients and patient-provider interactions (21,23). Physicians have the ability to dominate medical interactions by managing the exchange of information shared with patients, include or exclude topics, and even refuse to hear patients' experiences (23). Patients, in turn, are dependent on providers for information, and as a result, are silenced when information is not shared and when denied input on decisions regarding their health (21). This institutionalization of power created multiple barriers including insufficient access to information, institutionalized authority of providers and lack of opportunities to participate which restricted our migrant women from participating in decision-making.

Our study findings reveal that not all women want to actively participate in decision-making. Both migrant women and Canadian-born women were equally likely to adopt a passive role. These women often alluded their passivity was due to the trust for physicians and their medical expertise. This trust for physicians' has been coined as trust for 'authoritative knowledge' in the literature, and has been similarly cited when describing C-section decision-making experiences of Cambodian, Lao and Vietnamese immigrants in Australia (35,37). Similar passivity in participation and its association with trust physicians has been shown by Fraenkel (32) in their study of osteoporosis treatment preferences among Caucasian men and women (32).

Our finding that both migrant and Canadian-born women managed to actively participate in decision-making by understanding the institutionalization of power and learning how to maneuver around it is novel. It aligns with the literature which indicates that patient participation in decision-making is rooted in both power and knowledge. In a systematic review of the patient-reported barriers and facilitators of shared decision-making, Joseph-Williams (38), determined two key factors which are required for patient participation: knowledge and power. Joseph-Williams (38) argue that merely having knowledge of treatment options, personal preferences and goals do not provide the necessary means for patients to participate. Rather, patients need to

perceive an ability to influence the decision, which requires “permission to participate, confidence in their own knowledge, ability to acquire medical knowledge [and] necessary skills to participate,” (38). Our research suggests that participation does not differ between migrant and Canadian-born women due to migration status but rather due to the exclusivity of information on patient rights and care that can be requested or declined. Further research is needed to explore these factors and their impact on migrant patients’ ability to participate.

A key strength of our study is the ethnographic method, and especially prolonged observation of labour and delivery. Author 1 observed labour and delivery, sometimes for 15 hours at a stretch, often at night from 5:00pm to 5:00 am. Through our observation, we provide a ‘thick description’ of the ways in which barriers to participation were created, including the subtle power imbalances (28). These interactions were further explored in detail during the interviews where the participants not only described their experiences, but also shared their reflections and interpretations. The data collection strategies provided unique opportunities to observe the ways in which some patients attempted to challenge and dismantle the barriers they faced, and ultimately obtain the care they wanted.

Our study nonetheless has some limitations, one of which was the high loss to follow up. Due to poor communication between staff and administrators at the research site, the primary researcher was not consistently contacted when recruited participants arrived at the labour and delivery unit. However, once these communication challenges were identified and resolved within a few weeks into data collection, loss to follow up drastically decreased. Secondly, logistical reasons limited recruitment in a clinic which only provided care in English. Given this, almost all of our participants were able to communicate in English and therefore may have not faced similar language barriers as migrants who lack English fluency (36). A final limitation was the data was collected from two sites in Edmonton. As qualitative research, our findings cannot be generalized.

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## **Chapter 5: Conclusion**

The aim of our research was to explore whether migrant women participate in C-section decision-making, specifically to understand who makes the final decision, and whether migrant women's ability to participate differs from that of their Canadian-born counterparts. Our findings reveal that for planned C-section decisions, migrant women actively participated in decision-making when C-sections were not medically necessary, but rather a birth option. However, our exploration of labour and delivery experiences revealed significant power imbalances which prevented both migrant and Canadian-born women from participating in obstetrical decisions, including that of emergency C-sections. These barriers were overcome by a small group of 'expert patients' consisting of both migrant and Canadian-born women who exercised their patient rights, and had in-depth knowledge about the interventions available.

The strong distinctions in women's ability to participate in planned compared to emergency C-sections have been well documented in the literature of non-migrant women and within our review. In a study from the United Kingdom, 15 out of 29 of the women who had an elective C-section reported having 'full' or 'large' contribution to the decision to have a C-section, while only 17 out of 73 women who had an emergency C-section reported the same (1). More recently, a study by Thompson (2) in Australia found that approximately half of women who had a pre-labour (planned) C-section were both informed and had decided on the operative delivery, while only a quarter of women who had a post-labour (emergency) C-section reported the same (2). Our findings support this body of research, and add the experiences of migrant women who actively participated in planned C-sections decisions and most often were the primary decision-makers.

Although not specific to planned C-sections, the literature on migrant women's maternity experiences continuously report on migrants' lack of active say, voice of passivity, loss of self-agency during care (3-5). Even when women resisted medical recommendations or asserted their preferences, their opinions were often left unheard (3,6). However, our findings of migrant women as the primary decision-makers of planned C-sections provide contrary evidence showcasing their assertiveness and agency. Our findings allude to the significance of providers

and health systems in creating patient-provider interactions which support migrant women's participation.

Furthermore, the principles of informed and patient-centered decision-making are pivotal in allowing migrant women to make decisions regarding their delivery (7,8). Through the process of informed decision-making, migrant women were able to make knowledgeable mode of delivery choices by assessing the risks and benefits of each option in accordance to their own values and preferences. The Institute of Medicine (9) recommends the informed decision-making process in order to consistently provide high quality patient centered care (9). According to the Institute of Medicine the patient should be given the opportunity to exercise control over decisions pertaining to their health, and both providers and patients should communicate effectively and share information (9). Moreover, patients should have unrestricted access to their medical information and to clinical knowledge with providers encourage share decision-making and accommodating patient preferences (9). According to our findings, these principles were practiced by providers during prenatal consultations, and respondents were provided with both the opportunity to decide, and clinical knowledge to make an informed decision during planned decision-making. Although the literature has shown providers to share information with women in a way which reflects their own professional experience, interpretation of the evidence, personal values and preferences, our findings deviate from this with women reporting freedom of choice over the mode of delivery without any push or coercion from physicians (10,11).

When making decisions regarding planned C-sections, the literature consistently cites that women consider a variety of medical and non-medical factors (12-16). These include the medical risks for mother and baby, provider recommendations, as well as socio-cultural factors such as previous delivery experiences, avoidance and fear of pain, ability to plan the delivery, and length of recovery (13-18). Similarly women in our study based their decisions on a host of medical and socio-cultural factors; however, a small group of migrant women sought a planned C-section in order to fill in the gaps in their social support. Given this, we want to highlight the importance of providers addressing socio-cultural factors which push migrant women to seek C-sections. An emerging body of research has been critical of providers' discussions with women on mode of delivery after a C-section (11). Munro (11) argues providers do not routinely discuss

non-medical factors such as fear of labour or caring for older children, which may be influential and important to women's decision-making processes (11). The author further argues that providers could benefit from adopting a more comprehensive approach during consultations in which both clinical and socio-emotional risks are considered as well as to identify outcomes and factors which are most important to patients in order to incorporate these in the decision-making process (11).

Our findings revealed that migrant women's participation in obstetrical decisions during labour and delivery (including that of emergency C-sections) were starkly different from that of planned C-sections. Although the literature has cited migrant women's passivity in participation as due to poor command over the English language, our findings revealed that barriers to participation in both migrant and Canadian-born women were due to power imbalances rooted in the institutionalization of power (3-4). Although both our migrant and Canadian-born respondents were able to communicate with providers in English, their ability to participate in decision-making was restricted by the institutional authority of providers, limited opportunities for participation and inadequate sharing of information.

Power imbalances between patients and providers, including the positional power of providers and medical hegemony of healthcare settings has been well documented in the literature(19-25). Given this asymmetry, providers often have the power to decide when patients can provide input, control what information is shared and restrict patients' overall participation (25). However, our findings that 'expert patients' can maneuver the healthcare system are supported by a systematic review which identifies the role of patients' knowledge and power (26). Similar to the experiences of our migrant and Canadian-born respondents, the review concludes that when patients recognize their personal power, their capacity to influence the decision-making encounter and have the medical knowledge about available intervention options, they are able to maneuver power imbalances and negotiate their care according to their preferences (26). In order to ensure migrant patients have the right tools to negotiate and request the care of their choice, we recommend for interventions focusing on educating patients on their rights, and the types of obstetrical services available during labour and delivery.

Patient-provider interactions drastically differed when comparing prenatal consultations, to discussions in the labour and delivery room. The regular visits with a primary obstetrician over a nine-month interval allowed patients and providers to develop a trusting relationship where both parties were able to discuss their values, preferences and outcomes for the pregnancy. Contrarily, in the labour and delivery room, patients often go through multiple obstetricians within the course of labour, and in more cases than not, the on-call obstetrician is different from the patients' primary obstetrician. Furthermore, the nature of labour and delivery requires quick, decisive action in which physicians often do not have the time to include patients in discussions, and explore their preferences (27). As a result, the nature of labour and delivery does not provide the ideal opportunity for physicians to prioritize informed decision-making and patient participation.

The literature has identified a few strategies to ensure women participate in labour and delivery decisions and their preferences are expressed. Ideally physicians should have these conversations with patients well in advance of obstetric emergencies, in order to mutually explore the mothers' values, preferences and expectations for the delivery (27). If physicians are unable to have these conversations, the literature points to the role of labor nurses and their ability to support women in participating in decision-making during labour and delivery (28). A qualitative study by Simpson (28) found labour nurses had influential roles in supporting and advocating for women. Labour nurses' in the study ensured women felt supported both emotionally and through the exchange of information, by explaining what was happening during labour, and updating women on all the options as their labour progressed (28). Furthermore, labour nurses advocated for women's preferences to be incorporated decision-making, and coached women to advocate for themselves during interactions with physicians (28). Given our findings, we recommend further training of obstetrical staff, including obstetricians and nurses, to improve patient-provider interaction during labour and delivery, and better engage migrant and Canadian-born women in decision-making.

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## Appendices

### Appendix 1: Information Letter and Consent Form: Patient Participants

#### *Information and Informed Consent University of Alberta*

#### **Study Title: Exploring the Differential Rates of Caesarean Sections in Newcomer and Canadian-born Women in Edmonton, Alberta**

**Research Investigator:**

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780-492-7709

Hello,

My name is Tharsini Sivananthajothy and I am a graduate student with the School of Public Health at the University of Alberta. I am working over the next few months in Edmonton to learn about maternal health and reproductive health of newcomer and Canadian-born women.

#### Background and Purpose

You are being asked to participate in this study designed to investigate how decisions to have cesarean sections are made. By participating, you will be able to share your experiences during pregnancy, and childbirth. This research is being conducted as part of my graduate studies at the School of Public Health. Your obstetrician has given consent to participate in this study. If you agree, they will provide information on their experiences during your pregnancy and childbirth, and how a decision to have a caesarean section was made.

#### Study Procedures

**Interview:**

You are being asked to participate in an interview. Each interview will last between 1 -2 hours. If you agree to participate, we will digitally record the interviews and observations will be recorded during the interview. No personal identifying information will be collected, and interviews will be conducted in a private location to ensure your identity is kept private and confidential.

#### Possible Benefits

There are no direct benefits to you. However, we hope that the information gained from this study can inform and be incorporated into current policies and programming to better represent the maternal health needs of newcomer and Canadian-born women and their families.

#### Possible Risks or Discomforts

No risks or discomforts are anticipated. We will simply be speaking to you through an interview setting. However, please free to let me know if you feel the research topic is of a sensitive nature and could result in any emotional distress. If at any point you no longer feel comfortable in the interview, you are free to withdraw from the study.

#### Financial Considerations

There are no costs in being involved in this research and research participants will not be compensated for their participation.

#### Voluntary Participation and Termination of Research Study

Being in this study is your choice and you are under no obligation to participate in this study. You are also under no obligation to answer any specific questions and you can withdraw without any repercussions. Furthermore, if at any point you wish to have your data withdrawn from this study, you would simply need to contact me either by email: [sivanant@ualberta.ca](mailto:sivanant@ualberta.ca) or phone: 780 953 9538. This request must be made within two weeks following the completion of your interview to ensure the research team, can make the necessary arrangements to respond to this data withdrawal.

#### Confidentiality & Anonymity

This research study will be used for research articles, presentations and written reports to the funders. All personal identifiers including names, will be removed from all published documents, presentations and reports in order to maintain anonymity. Participants will be assigned a code and only necessary information will be utilized in documents. Only the researcher will have access to participants' codes. All data will be kept confidential and access will be restricted to the researcher and research team. Data will be stored for a minimum of 5 years prior to destruction. By signing this consent form you are saying it is okay for the study team to collect, use and disclose information about you from your obstetrician as described above.

#### Further Information

This study has been reviewed for its adherence to ethical guidelines by the University of Alberta Research Ethics Board. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.



## **Appendix 2: Information Letter and Consent Form: Family Member Participants**

### ***Information and Informed Consent*** *University of Alberta*

**Study Title: Exploring the Differential Rates of Caesarean Sections in Newcomer and Canadian-born Women in Edmonton, Alberta**

**Research Investigator:**

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780-492-7709

Hello,

My name is Tharsini Sivananthajothy and I am a graduate student with the School of Public Health at the University of Alberta. I am working over the next few months in Edmonton to learn about maternal health and reproductive health of newcomer and Canadian-born women.

***Background and Purpose***

You are being asked to participate in this study designed to investigate how decisions to have cesarean sections are made. By participating, you will be able to share your experiences during your family member's pregnancy, and childbirth. This research is being conducted as part of my graduate studies at the School of Public Health.

***Study Procedures***

**Interview:**

You are being asked to participate in an interview. Each interview will last between 1 -2 hours. If you agree to participate, we will digitally record the interviews and observations will be recorded during the interview. No personal identifying information will be collected, and interviews will be conducted in a private location to ensure your identity is kept private and confidential.

***Possible Benefits***

There are no direct benefits to you. However, we hope that the information gained from this study can inform and be incorporated into current policies and programming to better represent the maternal health needs of newcomer and Canadian-born women and their families.

***Possible Risks or Discomforts***

No risks or discomforts are anticipated. We will simply be speaking to you through an interview or focus group discussion setting. However, please free to let me know if you feel the research

topic is of a sensitive nature and could result in any emotional distress. If at any point you no longer feel comfortable in the interview/focus group discussion, you are free to withdraw from the study.

#### Financial Considerations

There are no costs in being involved in this research and research participants will not be compensated for their participation.

#### Voluntary Participation and Termination of Research Study

Being in this study is your choice and you are under no obligation to participate in this study. You are also under no obligation to answer any specific questions. If at any stage you feel uncomfortable, you can withdraw without any repercussions. Furthermore, if at any point you wish to have your data withdrawn from this study, you would simply need to contact me either by email: [sivanant@ualberta.ca](mailto:sivanant@ualberta.ca) or phone: 780 953 9538. This request must be made within two weeks following the completion of your interview or focus groups discussion to ensure the research team, can make the necessary arrangements to respond to this data withdrawal.

#### Confidentiality & Anonymity

This research study will be used for research articles, presentations and written reports to the funders. All personal identifiers including names, will be removed from all published documents, presentations and reports in order to maintain anonymity. Participants will be assigned a code and only necessary information will be utilized in documents. Only the researcher will have access to participants' codes. All data will be kept confidential and access will be restricted to the researcher and research team. Data will be stored for a minimum of 5 years prior to destruction.

#### Further Information

This study has been reviewed for its adherence to ethical guidelines by the University of Alberta Research Ethics Board. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.



### Appendix 3: Interview guide for women who had a C-section delivery

#### Interview Guide for Newcomer and Canadian-born Women Post Decision Making

Probes: Can you tell me more about that? Can you describe that in more detail?

*To map how decisions regarding planned and emergency caesarean section deliveries made within the experiences of newcomer and Canadian-born women and the roles of various players:*

Please tell me about yourself and your family: where you were born, when you moved to Canada, how did you come to Canada (refugee or immigrant), what you do now.

#### **Tell me about your pregnancies? How was the first pregnancy?**

- Where were you at that time? Where did the delivery take place, who attended the birth?
- Were you satisfied with the birth experience?
- What happened when you went in to labour?
- Did it go according to plan?
- How was it decided on how you would deliver the baby?
- Who decided and how?
- Tell me about the conversation when the decision was made, on how the baby would be delivered?
- How did your family members react and why did they feel that way?

Tell me about your current pregnancy (C-section being studied).

- What happened when you went in to labour?
- Did it go according to plan?
- **How was it decided on how you would deliver the baby?**
- **Who decided and how?**
- **Tell me about the conversation when the decision was made, on how the baby would be delivered?**
- **What did the doctor recommend?**
- If doctor recommended: **Did you ever consider a c-section before the doctor recommended it?**

Why did you **have** the C-section? (probe regarding who recommended, why and who made the final decision). Probe for the role of the doctor, her family and herself in the final decision?

- **Was there ever a possibility for a vaginal birth?**
- **How did you want to deliver, and how did you express this?**
- Would you have preferred to have a C-section, why or why not?
- Were you happy that you had a **C-section**?
- **Where you comfortable with communicating with your thoughts, opinions and preferences?**

**How did you and your family members react or feel about having a cesarean section delivery? Why did you feel that way?**

If newcomer women: **How common are C-sections back home? Why? How do people feel about them, how do doctors feel about them?**

How did you feel during labour? Were you comfortable? (if time)

***To determine factors affecting decision-making:***

Can you share with me what factors in your opinion made you decide to **not** have a C-section?

What factors did you consider before you agreed to have a **vaginal delivery**?

***To determine what information is provided to the newcomer and Canadian-born women and by whom:***

What information did you receive regarding the delivery and from whom?

What information did you receive specifically about caesarean section deliveries? Who provided you with this information? Did the doctor explain to you, your options and the associated risks?

What questions did you have regarding the caesarean section and was your doctor able to answer these questions thoroughly?

Did you or your family look for any other information sources? Did you speak to anyone else regarding how to deliver? Why or why not?

Did you attend prenatal classes, why or why not?

Were you and your family happy with the information that was given to you?

Did you feel well informed during the process?

What were you most worried about?

***Comparison between previous deliveries to current one (if time)***

Can you compare your experience to your previous deliveries? What was similar? What was different?

Any other additional questions which arise.

## Appendix 4: Interview guide for women who had a Vaginal Delivery

### Interview Guide for Newcomer and Canadian-born Women Post Decision Making

*To map how decisions regarding planned and emergency caesarean section deliveries made within the experiences of newcomer and Canadian-born women and the roles of various players:*

Please tell me about yourself and your family: where you were born, when you moved to Canada, how did you come to Canada (refugee or immigrant), what you do now.

#### **Tell me about your pregnancies? How was the first pregnancy?**

- Where were you at that time?
- Where did the delivery take place, who attended the birth?
- Were you satisfied with the birth experience?

Tell me about your current pregnancy (C-section being studied).

- What happened when you went in to labour?
- Did it go according to plan?
- **How was it decided on how you would deliver the baby?**
- **Who decided and how?**
- **Tell me about the conversation when the decision was made, on how the baby would be delivered?**

Why did you have **not have** C-section?

- **Was there ever a possibility for a C-section?**
- **How did you want to deliver, and how did you express this?**

(probe regarding who recommended, why and who made the final decision). Probe for the role of the doctor, her family and herself in the final decision?

Were you happy that you did **not have a C-section**?

How did you and your family members react or feel about **maybe** having a cesarean section delivery? Why did you feel that way?

Would you have preferred to have a C-section, why or why not?

How did you want to deliver?

Were you able to express this? Why or why not?

How did you feel during labour? Were you comfortable?

**Were you comfortable with communicating with your thoughts, opinions and preferences?**

*To determine factors affecting decision-making:*

Can you share with me what factors in your opinion made you decide to **not** have a C-section?

What factors did you consider before you agreed to have a **vaginal delivery**?

***To determine what information is provided to the newcomer and Canadian-born women and by whom:***

What information did you receive regarding the delivery and from whom?

What information did you receive specifically about caesarean section deliveries? Who provided you with this information? Did the doctor explain to you, your options and the associated risks?

Were you and your family happy with the information that was given to you?

What questions did you have regarding the caesarean section and was your doctor able to answer these questions thoroughly?

What were you most worried about?

Did you or your family look for any other information sources? Did you speak to anyone else regarding how to deliver? Why or why not?

***Comparison between previous deliveries to current one***

Can you compare your experience to your previous deliveries? What was similar? What was different?

Did you have a C-section previously? Why or why not?

Any other additional questions which arise.

## Appendix 5: Literature Review Search Strategies

### Medline Database

<input type="checkbox"/>	# ▲	Searches	Results	Type
<input type="checkbox"/>	3	("cesarean section" OR "caesarean section" OR c-section* OR "c section" OR "caesarean sections" OR "cesarean section").mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	59023	Advanced
<input type="checkbox"/>	4	limit 3 to (english language and yr="1995 -Current")	33405	Advanced
<input type="checkbox"/>	5	2 and 4	1526	Advanced
<input type="checkbox"/>	6	limit 5 to (classical article or clinical study or clinical trial, all or clinical trial or journal article or meta analysis or observational study or randomized controlled trial)	1433	Advanced

Combine with:

### CINHAL Database

S1	 ( decision* OR "decision making" OR "decision-making" ) AND ( "cesarean section" OR "caesarean section" OR c-section* OR "c section" OR "caesarean sections" OR "cesarean section" )	<b>Limiters</b> - Scholarly (Peer Reviewed) Journals; English Language; Published Date: 19950101-20180531; Publication Type: Journal Article  <b>Search modes</b> - Find all my search terms	 <a href="#">View Results (780)</a>
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### Web of Science Database

#### Search History:

Set	Results		Edit Sets
		<input type="button" value="Save History / Create Alert"/> <input type="button" value="Open Saved History"/>	
# 3	849	(#2 AND #1) AND LANGUAGE: (English) AND DOCUMENT TYPES: (Article) <i>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1995-2018</i>	Edit
# 2	25,208	((TS=("cesarean section" OR "caesarean section" OR c-section* OR "c section" OR "caesarean sections" OR "cesarean section")) AND LANGUAGE: (English) <i>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1995-2018</i>	Edit
# 1	750,159	((TS=(decision* OR "decision making" OR "decision-making")) AND LANGUAGE: (English) <i>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1995-2018</i>	Edit