

Women's Views on Elective Primary Caesarean Section

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Abstract

Objective: Elective primary Caesarean section (EPCS), Caesarean section performed at a woman's request in the absence of a recognized obstetrical indication, is becoming increasingly common. Recent articles and opinions in both the medical and lay press have polarized this issue. The purpose of this study was to determine the opinions and choices of nulliparous and multiparous women with respect to mode of delivery.

Methods: All women attending antenatal clinics at Kingston General Hospital from May to August 2005 were invited to participate in a confidential survey. Basic demographic data including maternal age, level of education, parity, and previous mode of delivery were collected. Respondents who had had a previous Caesarean section were excluded from data analysis. The questionnaire provided a written statement of potential benefits and risks of an EPCS compared with vaginal delivery; no other counselling was provided. Respondents were asked if EPCS should be offered to all women and whether they would choose EPCS if given the choice. Respondents were also asked to indicate the most and least influential factors in their decision.

Results: Responses were received from 107 nulliparous women and 103 multiparous women. Thirteen percent of nulliparas (14/107) stated that they would choose EPCS if given the option, compared with 5% of multiparas (5/103). Fifty-one percent of nulliparas (55/107) and 28% of multiparas (29/103) believed that EPCS should be offered to all women receiving antenatal care. The most and least important reasons, chosen from a list, for requesting or declining EPCS varied between nulliparas and multiparas. The convenience of scheduling permitted by Caesarean section was not important for either multiparas or nulliparas. The perceived risks of vaginal delivery were commonly cited by both nulliparas and multiparas as reasons for requesting EPCS, whereas the risks of Caesarean section for the baby or for future pregnancies were the most commonly cited reasons to decline EPCS in both groups. Regardless of the decision to request or decline EPCS, cost to the health care system was not an important factor for either nulliparas or multiparas.

Conclusion: The majority of pregnant women surveyed would not request an EPCS. However, a significant number of pregnant women, both nulliparous and multiparous, felt that women should be given the option of undergoing EPCS.

Key Words: Caesarean section, delivery, obstetric, pregnancy outcome, choice behaviour, patient autonomy

Competing Interests: None declared.

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Résumé

Objectif : La césarienne de convenance primaire (CCP), soit une césarienne effectuée à la demande d'une patiente en l'absence d'une indication obstétricale reconnue, est de plus en plus courante. Les articles et les opinions récemment publiées, tant dans la presse médicale que profane, ont polarisé la question. Cette étude avait pour objectif de déterminer les opinions et les choix des femmes nullipares et multipares quant au mode d'accouchement.

Méthodes : Toutes les femmes s'étant présentées aux cliniques prénatales du *Kingston General Hospital*, entre mai et août 2005, ont été invitées à participer à un sondage confidentiel. Des données démographiques fondamentales (y compris l'âge maternel, le niveau d'éducation, la parité et le mode d'accouchement mis en œuvre dans le cadre de la grossesse précédente) ont été recueillies. Les participantes qui avaient déjà subi une césarienne ont été exclues de l'analyse des données. Le questionnaire a fourni un exposé écrit des avantages et des risques potentiels d'une CCP, par comparaison avec l'accouchement vaginal; aucun autre service de counseling n'a été offert. Nous avons posé aux participantes les deux questions suivantes : « La CCP devrait-elle être offerte à toutes les femmes? » et « Auriez-vous recours à la CCP si on vous en laissait le choix? ». Nous avons également demandé aux participantes de nous indiquer quels étaient les facteurs les plus et les moins importants motivant leur décision.

Résultats : Nous avons obtenu des réponses de la part de 107 femmes nullipares et de 103 femmes multipares. Treize pour cent des nullipares (14/107) ont indiqué qu'elles choisiraient la CCP si on leur en laissait le choix, par comparaison avec 5 % des multipares (5/103). Cinquante et un pour cent des nullipares (55/107) et 28 % des multipares (29/103) estimaient que la CCP devrait être offerte à toutes les femmes bénéficiant de soins prénatals. Les raisons les plus et les moins importantes (choisies à partir d'une liste) de demander ou de refuser une CCP variaient selon que les participantes étaient nullipares ou multipares. La capacité de déterminer le jour de l'accouchement que permet la césarienne ne s'est avérée importante ni pour les multipares ni pour les nullipares. Les risques perçus comme liés à l'accouchement vaginal ont été fréquemment cités, tant par les nullipares que les multipares, à titre de raison de demander une CCP, tandis que les risques qu'entraîne la césarienne pour l'enfant ou les grossesses futures ont été les raisons les plus fréquemment citées pour refuser la CCP dans les deux groupes. Peu importe la décision de demander ou de refuser une CCP, les coûts devant être assumés par le système de soins de santé n'ont pas constitué un facteur important, et ce, tant pour les nullipares que pour les multipares.

Conclusion : La plupart des femmes enceintes ayant participé au sondage ont indiqué qu'elles ne demanderaient pas une CCP. Cependant, un nombre significatif de femmes enceintes, tant nullipares que multipares, estimaient que les femmes devraient se voir offrir le choix de subir une CCP.

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INTRODUCTION

Elective primary Caesarean section (EPCS), or Caesarean section (CS) performed at a woman's request in the absence of an obstetrical indication, is a topic that polarizes clinicians and health consumers. It has received much national and international attention recently in both the medical and lay media. There is a growing body of evidence that CS, in some circumstances, may have advantages over vaginal delivery.¹ The defining study on EPCS (undertaken as a postal survey) asked British obstetricians to consider whether they or their partners would undergo elective CS (without any clinical indication) rather than vaginal delivery in an uncomplicated singleton pregnancy at term ($n = 282$, response rate 73%). The 17% of respondents who chose EPCS indicated that their choice was based on fear of long-term sequelae, specifically stress incontinence and anal sphincter damage (100% of those choosing EPCS), fear of perineal damage from vaginal delivery (88%), concern about the long-term effect of vaginal delivery on sexual function (58%), fear of damage to the baby (39%), and the desire for an electively timed delivery (27%).² Surveys of Danish,³ Canadian,⁴ British,⁵ Irish,⁶ Israeli,⁷ Australian,^{8,9} and Scottish¹⁰ obstetricians on this subject have since been carried out. Although the degree of support for EPCS varies from country to country, a significant proportion of obstetricians indicated that they would choose EPCS for themselves or their partners. A recent study of CS and delivery outcomes in Latin America postulated that rates of CS, especially elective CS performed in a private hospital, reflect a complex social process that is affected by clinical status, family and social pressures, the legal system, the availability of technology, and women's role models.¹¹ The study further revealed that for each 1% increase in the rate of CS in developed countries, there is an increase in health care costs of approximately US\$9.5 million. These funds could otherwise be used to improve other areas of maternal and newborn care and research.¹¹

Three studies have assessed patient preferences with respect to mode of delivery. In Italy, elective CS by maternal request was implemented into clinical practice from 1996 onwards. A retrospective chart review ($n = 2031$) from 1996 to 2000 to examine the effect of the change in clinical practice on national CS rates found 7% of Caesarean sections were performed because of maternal request.¹² A

Welsh study of women ($n = 344$) attending antenatal clinics found that 14% would opt for a CS at 39 weeks; the main reasons given were concern for fetal safety, fear of vaginal trauma, to avoid a long labour, and to allow timing of delivery.¹³ A large survey of Swedish women ($n = 3283$) attending antenatal clinics sought to determine how many women would elect to have a CS when given the option in early pregnancy and to identify reasons associated with the decision. Approximately 8% of women surveyed said they would prefer to have a CS. A previous CS, fear of vaginal delivery, and a previous negative birth experience were the most commonly cited reasons for the decision.¹⁴

The present study was conducted in order to determine the opinions of women at Kingston General Hospital with respect to EPCS; specifically, whether they felt that it should be offered to all women, whether they would choose to have EPCS themselves, and the reasons they identified as most influencing their personal preference for mode of delivery.

METHODS

Women attending antenatal clinics at the Kingston General Hospital between May and August 2005 who were over 18 years of age and between 28 and 32 weeks' gestation were invited to participate in the study by filling out an anonymous questionnaire. The care providers for these women were all specialist obstetricians. The age of each woman, her level of education, parity, and previous mode of delivery (where applicable) were recorded.

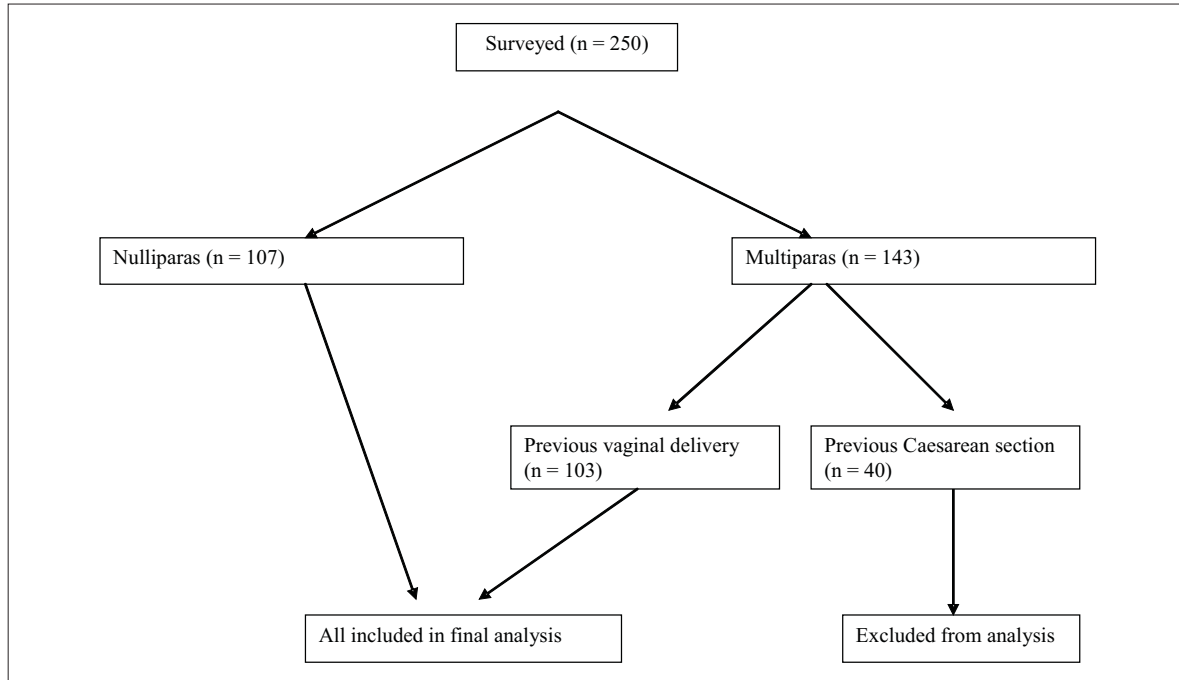
Information explaining potential benefits and risks (Appendix) of EPCS compared with vaginal delivery was provided in the survey. No other counselling or information was provided before the two-page questionnaire was completed. Subjects were asked if they thought that EPCS should be offered to all women and whether they would choose EPCS for themselves. The subjects were also asked to select from a list the reasons most likely and least likely to influence their decision to request or decline EPCS.

Approval from the Queen's University Research Ethics Board was obtained prior to initiation of the study.

RESULTS

In total, 287 questionnaires were returned to the anonymous drop box. Of these, 37 (17 nulliparas, 18 multiparas with a prior vaginal delivery, and 12 multiparas with a prior CS) were excluded as incomplete, leaving 250 responses for analysis (Figure). Those with a previous CS ($n = 40$) were excluded from the final analysis because there was uncertainty about whether these women answered the survey from the perspective of elective *primary* rather than elective *repeat* CS. Of the 250 women returning completed surveys,

Survey responses and numbers analyzed



210 had not had a previous CS and were included in the final analysis. Participants were grouped with respect to their preference for CS, determined by a response of “Yes,” “No,” or “Undecided” to the question “If elective primary Caesarean section was offered to you, would you choose to have one?” and categorized by education and age. All participants had at least a high school education and the majority (85% nulliparas, 77% multiparas) were between 21 and 35 years old.

After declaring whether or not they would choose EPCS for themselves (Table 1), the participants were asked to rank, from most important to least important, the factors (Table 2) affecting their decision. The two most and least influential factors for nulliparas and multiparas choosing Yes or No are shown in Table 3.

Participants were asked whether or not they believed the procedure should be offered to all women as a routine part of antenatal care. Results, grouped by parity, are shown in Table 4.

DISCUSSION

This survey of women attending antenatal clinics at the Kingston General Hospital demonstrates that a minority of women (14% nulliparous, 5% multiparous) would request an EPCS if given the option, although a larger proportion was undecided (32% of nulliparas and 20% of multiparas).

Table 1. Opinions of participants with respect to requesting (Yes) or declining (No) for themselves an elective primary Caesarean section as opposed to a vaginal delivery

Personal Preference for EPCS	Nulliparas (n = 107)	Multiparas (n = 103)
Yes	14 (13%)	5 (5%)
No	59 (55%)	77 (75%)
Undecided	34 (32%)	21 (20%)

Table 2. List of potential factors influencing the decision of the participants to request or decline elective primary Caesarean section

- Convenience
- Avoidance of labour pain
- Avoidance of emergency Caesarean section
- Pelvic floor protection
- Risks to the newborn from vaginal delivery
- Operative complications of Caesarean section
- Risks to the newborn from Caesarean section
- Risks to future pregnancies from Caesarean section
- Cost of Caesarean section to the health care system

Table 3. Most and least influential factors for requesting or declining elective primary Caesarean section

Personal preference for Caesarean section	Nulliparas		Multiparas	
	Two most influential factors affecting preference	Two least influential factors affecting preference	Two most influential factors affecting preference	Two least influential factors affecting preference
Yes	Avoidance of labour pain	Cost of CS to health care system	Risks of vaginal delivery	Convenience
Yes	Avoidance of emergency CS and risks of vaginal delivery*	Risks to future pregnancies*	Risks of CS to future pregnancies†	Avoidance of labour pain†
No	Risks of CS to baby‡	Convenience‡	Risks of CS to baby§	Convenience§
No	Risks of CS to future pregnancies and operative complications of CS‡	Avoidance of labour pain and cost of CS to health care system‡	Risks of CS to future pregnancies§	Avoidance of labour pain§

*According to the 13% of nulliparas who would request an EPCS for themselves.

†According to the 5% of multiparas who would request an EPCS for themselves.

‡According to the 55% of nulliparas who would decline an EPCS for themselves.

§According to the 75% of multiparas who would decline an EPCS for themselves

Table 4. Response of women by parity to the option of offering Caesarean section to all pregnant women in the absence of an obstetrical indication

Should Caesarean section be offered to ALL women?	Nulliparas (N = 107)	Multiparas (N = 103)
Yes	55 (51%)	29 (28%)
No	27 (25%)	50 (49%)
Undecided	25 (24%)	24 (23%)

The majority of respondents (75% nulliparas, 51% multiparas) felt that all women should be given the option or were undecided on the issue. The reasons behind their personal decisions (either to request or decline EPCS) differed between nulliparas and multiparas and may reflect previous labour and delivery experience by the multiparas.

Although specific information on ethnicity and socioeconomic status was not collected, the cohort of women in the survey was felt to be representative of the female population of Kingston, composed mainly of Caucasian, English-speaking individuals. Immigrants and visible minorities were likely under-represented in this sample, which may compromise the potential to extrapolate the findings to the rest of Canada.

Despite the debate in the medical community and in the lay press in recent months, the majority of pregnant women surveyed did not appear to desire the option of EPCS for themselves. Currently, the International Federation of

Gynecology and Obstetrics (FIGO), the World Health Organization (WHO), and the Society of Obstetricians and Gynaecologists of Canada (SOGC) do not support offering EPCS. FIGO has taken the position that “there is no hard evidence on the relative risks and benefits of term Caesarean section delivery for non-medical reasons, as compared with vaginal delivery [and that]...at present, because hard evidence of net benefit does not exist, performing Caesarean section for non-medical reasons is ethically not justified.”¹⁵ The WHO states that a global CS rate of greater than 10% to 15% is unnecessary¹⁶ and has invested time and resources producing guidelines to reduce rates worldwide. The SOGC opposes EPCS for two reasons; firstly, because of the lack of evidence demonstrating that in a normal, low-risk pregnancy, CS carries less risk than vaginal delivery for mother and baby, and, secondly, because of the attendant increased use of health care resources.¹⁷ Recent articles in the Canadian press have commented specifically on the high cost of the “too posh to push” phenomenon,

stating that Canadian hospitals typically spend 60% more to care for a woman who has a CS, or about \$4600 per woman compared with \$2800 for a vaginal birth.¹⁸

Although there are purported risks and benefits to both EPCS and vaginal delivery, it was not within the scope of this study to determine the validity of these. Patients were simply asked to make decisions with regard to mode of delivery based on written information provided by the survey. Results may have differed if counselling and the opportunity to ask questions had been available. For many respondents, views were likely based on reports in the lay press and information obtained on the Internet or from non-obstetrical sources. Although it may be difficult to quantify the effect of these confounders, examining the preferences of a different subset of pregnant women, such as those cared for by family doctors and midwives, may provide a useful direction for future research. Stratifying specifically for ethnicity, socioeconomic status, and familial opinion might help determine the influence of these factors on the ultimate mode of delivery decision. A comparison of the views of female patients with those of health care providers regarding the reasons to request or decline an EPCS might also be an enlightening undertaking.

CONCLUSION

Increasing numbers of patients are raising the subject of elective primary CS. Our survey of pregnant women in Kingston, Ontario, indicated that the majority would not choose to request an EPCS. However, a significant number of pregnant women, both nulliparous and multiparous, felt that all women should be given the option of undergoing EPCS.

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APPENDIX**Information provided on potential benefits of elective primary Caesarean section**

There are reasons why a woman might choose an elective primary Caesarean section (EPCS). It allows one the convenience of scheduling a date for delivery and the avoidance of the pain associated with labour and vaginal delivery. Approximately 1 in 5 women who attempt vaginal delivery will require an urgent or emergency Caesarean section after labour starts. Caesarean sections in labour are associated with an increased risk of wound infection and blood transfusion compared to an EPCS. An EPCS prevents tears and episiotomies which are sometimes associated with vaginal birth. An EPCS may reduce the risk of pelvic floor damage that can result in incontinence of urine and stool. While the chance of harm to babies is very low with vaginal delivery, it can be eliminated with an EPCS.

Information provided on potential risks of elective primary Caesarean section

There are also disadvantages to having a Caesarean section. Although it is considered a safe operation, it is still major

surgery. Recovery takes longer than recovery from vaginal delivery. Complications such as wound infection, blood loss and damage to other organs like bowel and bladder occur at a rate of 5% or less. While risks to the baby with an EPCS are rare, they can include transient difficulty with breathing that may require admission to a special care nursery for oxygen treatment. A small number of babies can suffer a minor scalpel cut in the skin. Once there is a scar on the uterus, future pregnancies have higher risks of uterine rupture and abnormal placental growth. Though rare, both conditions have potentially significant effects on mother and baby. Following previous Caesarean section, there is a small increased risk of stillbirth in subsequent pregnancies which reach full-term. Because of scar tissue formed at surgery, future Caesarean sections and pelvic surgeries are potentially more complicated. Compared to vaginal delivery, Caesarean section requires the skills of more hospital staff and a longer hospital stay which is more costly to the health care system.