European Journal of Obstetrics & Gynecology and Reproductive Biology 192 (2015) 54–60

Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Caesarean section at maternal request – the differing views of patients and healthcare professionals: a questionnaire based study

A.N. Sharpe [a,*], G.J. Waring [b], J. Rees [c], K. McGarry [d], K. Hinshaw [e,f]

[a] South Tees NHS Foundation Trust, Newcastle University, Newcastle upon Tyne, Tyne and Wear NE1 7RU, United Kingdom
[b] City Hospitals Sunderland NHS Foundation Trust, United Kingdom
[c] University of Sunderland, United Kingdom
[d] Department of Pharmacy, Health and Well-being, Faculty of Applied Science, University of Sunderland, SR1 3RG, United Kingdom
[e] City Hospitals Sunderland NHS Foundation Trust, SR4 7TP, United Kingdom
[f] Department of Pharmacy, Health and Well-being, University of Sunderland, SR1 3SD, United Kingdom

ARTICLE INFO

Article history:
Received 8 February 2015
Received in revised form 28 May 2015
Accepted 12 June 2015

Keywords:
Caesarean section
Maternal request
Doctors
Midwives
Pregnant women

ABSTRACT

Objective: The number of caesarean sections at maternal request without medical indication is increasing. We aimed to explore the views of pregnant women, midwives and doctors using six hypothetical clinical scenarios and compare group views on: (a) perceived appropriateness of requests for caesarean section and (b) the reasons underlying these requests.

Study design: A questionnaire was distributed to 166 pregnant women, 31 midwives and 52 doctors within maternity units at two hospitals in the North East region of England. Six hypothetical clinical scenarios for maternal requests were used: (1) uncomplicated first pregnancy, (2) one previous normal delivery, (3) one previous instrumental delivery, (4) one previous caesarean section, (5) one previous caesarean section with vaginal delivery since and (6) uncomplicated twin pregnancy. To highlight the differences in group responses, two main questions were asked for each scenario:

1. Should women be able to request a caesarean section?
2. What do you feel are the reasons for requesting a caesarean section?

Data was analysed using Chi-squared or likelihood ratio as appropriate.

Results: In scenarios 1–3, professional groups were '*less likely*' than pregnant women to always support a request (2.4% vs. 19.4%), (2.6% vs. 15.6%), (4.6% vs. 22%), ($p < 0.001$). No significant differences were shown between doctors and midwives except for scenario 6 (twins), where midwives more often felt maternal requests should be declined (26.1% vs. 1.9%) ($p = 0.001$). Multiparous women ($n = 95$) were more likely to agree 'sometimes' to maternal requests in scenarios 1, compared to nulliparous women ($n = 71$) (21.1% vs. 4.2%) ($p = 0.04$).

'*Safety of the baby*' was ranked highly with pregnant women in scenarios 1–3 (mean 24.4%, range [15.8–38%]) compared with healthcare professionals (7.6% [3.4–12.8%]). However in scenario 3, healthcare professionals attributed '*fear of injury to self*' (29.6%) as the most likely reason compared to 14.6% of pregnant women.

Conclusion: Healthcare professionals and pregnant women's views differ significantly. Multiparous patients' views differ from those who have not had children before. We should provide clearer information on risks and benefits which encompass areas that concern women most.

Introduction

Caesarean section (CS) rates are rising worldwide. In the UK, 25% of women have a CS and 6–8% of women express a preference for CS [1]. Worldwide estimates of CS at maternal request (CS-MR) are 6–8% in Northern Europe, 11.2% in USA, 17.3% in Australia and 70% in Brazil [1–4]. In situations such as breech presentation and position of the placenta, the mode of delivery can improve both neonatal and maternal outcomes [5]. However when there is no specific medical reason for a CS, the impact of this mode of delivery is unclear [1,5,12,14]. A history of previous CS increases the risk of future uterine rupture and also abnormal placentation (placenta

* Corresponding author. Tel.: +44 1915699782.
E-mail address: Abigail.sharpe@newcastle.ac.uk (A.N. Sharpe).

http://dx.doi.org/10.1016/j.ejogrb.2015.06.014
0301-2115/

praevia and accreta). However, this risk does not always outweigh the psychological stresses burdening women whom fear childbirth [5,12,14].

The definition of a CS-MR is when a woman explicitly asks for an elective CS in the absence of any medical or obstetric indications. Common reasons include previous negative birth experience, fear of childbirth, complications in current pregnancy and the belief that a CS will be safer for the baby [1,6].

The changing attitudes regarding preference for a CS in the absence of medical indications is not just limited to pregnant women. A greater number of obstetricians are opting for women to have a CS in the absence of medical indications. A study in Canada showed that 25% of healthcare professionals working with pregnant women thought that a CS protected women from urinary incontinence and sexual dysfunction problems in the future [7].

The National Institute for Health and Care Excellence (NICE) updated their guidelines in 2011 to state that when a woman requests a CS and there are no medical indications, the clinician should explore the woman's reasoning and discuss both the risks and benefits of all modes of delivery [1]. If elective CS is still the preferred mode of delivery then it should be offered to the patient [1].

Alongside publishing these guidelines, NICE also published data on the cost of CS [8]. The financial cost of having a planned caesarean section (£2369) is more expensive compared with an uncomplicated vaginal delivery (£1665) [8]. Rising CS rates could have financial consequences for the NHS. It is thought that CS-MR rates are contributing to rising CS rates since the introduction of the new NICE guidelines. Supportive evidence from a large UK obstetric unit confirms an increase in the rate of CS-MR over the last 3 years (Norman J – personal communication): 2012 6.9% ($n = 73$); 2013 9.0% ($n = 95$); 2014 9.8% ($n = 94$ [10 months]) $p = 0.048$ Pearson Chi-squared 2df. Results expressed as percentage of total elective CS.

In 2001, 7% of all CS in England were at maternal request [8–10]. The excess cost of a caesarean delivery is £700, which results in additional annual NHS costs of £7,710,444 for CS-MR (from 2010 $n = 157{,}356$ CS). A continued rise in the rate of CS-MR of 1% per annum would result in increased NHS expenditure (England) of at least £1.13 million per year [9].

Data comparing the risks of having a planned CS with the risks of vaginal delivery are limited. Hence, the opinions of doctors, midwives and patients will greatly influence clinical practice and the use of NHS resources [11]. The aim of this study is to compare the views of pregnant women, midwives and doctors about firstly whether women should be able to choose a CS-MR and secondly what do they feel are the reasons for women to choose a CS-MR, using hypothetical clinical scenarios in which NICE will now support maternal requests.

Materials and methods

Questionnaire

A pilot questionnaire was designed and divided into three parts;

- *Part 1*: Basic demographic information was obtained about age, occupation and education.
- *Part 2*: Based on six hypothetical clinical scenarios (Fig. 1), participants were asked should women be able to choose a CS-MR for each scenario. Five response options were provided as numbers 1–5 (Fig. 2).
- *Part 3*: Based on the six hypothetical clinical scenarios (Fig. 1), participants were asked what they felt were the reasons for women to choose a CS-MR? Six response options were provided as numbers 1–6 (Fig. 3).

1. **No previous children** and the current pregnancy is normal and the baby is healthy and head down.
2. **Previous normal delivery** and the current pregnancy is normal and the baby is healthy and head down.
3. **Previous forceps or vacuum delivery** and the current pregnancy is normal and the baby is healthy and head down.
4. **One previous C-section only** and the current pregnancy is normal and the baby is healthy and head down.
5. **One previous C-section and delivered vaginally since** and the current pregnancy is normal and the baby is healthy and head down.
6. **Current pregnancy is twins** and both twins are healthy and head down

Fig. 1. The six scenarios.

1. Yes always
2. Yes most times
3. Yes sometimes
4. No
5. I really don't know

Fig. 2. Questionnaire response options for 'Should women be able to choose to have a caesarean section when there are no medical indications?'

1. Convenience
2. They are put off by other people's negative experiences of child birth
3. They believe that a caesarean section is safer for the baby
4. They fear injury to self such as damage to the bladder
5. They fear childbirth
6. Other

Fig. 3. Questionnaire response options for 'What do you think is the most common reason why women choose to request a Caesarean Section' in each scenario?

Data collection

Trust registration was obtained for permission to distribute questionnaires between January and March 2012. Verbal consent was obtained prior to distributing 249 questionnaires to pregnant women, midwives and doctors either attending or working in the obstetric department Monday to Friday during working hours 9–5, at two district general hospitals in the North East region. Attempts were made to ascertain as many views as possible from healthcare professionals and pregnant women within a three month period. The distribution of questionnaires was prospective and opportunistic, where each recipient was informed beforehand that the questionnaire was optional and anonymous. The aim was to get 250 completed questionnaires in total to encompass the views of pregnant women, doctors and midwives attending or working in the departments.