Could a randomised trial answer the controversy relating to elective caesarean section? National survey of consultant obstetricians and heads of midwifery

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International concerns about rising rates of caesarean section are counterbalanced by arguments that planned caesarean section without specific clinical indication (such as breech presentation or HIV infection) falls within legitimate maternal choice.[1] Professional opinion is divided. To perform a caesarean section without clinical reason is seen as ethical, in response to maternal request, by the American College of Obstetricians and Gynecologists; is enshrined in law in Italy; but is viewed as unethical by the International Federation of Gynecology and Obstetrics. The National Institute for Health and Clinical Excellence recommends that a second opinion should be offered.[2] A well designed, randomised controlled trial of planned caesarean section compared with planned vaginal birth could provide important evidence.[3]

Participants, methods, and results

We aimed to survey all consultant obstetricians and heads of midwifery (gatekeepers to such a trial) practising in England between January 2003 and May 2004. We explored their views of women's requests for caesarean section without clinical indication and of a possible randomised controlled trial in a postal survey. We used semistructured questionnaires with closed questions followed by free text spaces to provide supporting rationale. Comparisons were made between professionals and according to parental status, sex, and type of unit where they worked. We used χ^2 tests to compare the proportion of respondents saying "yes" to each question. Two of the authors (TL, CK) manually analysed qualitative responses.

Altogether 660/924 (71%) eligible obstetricians and 123/169 (73%) midwives responded (table). Almost half of the obstetricians and a quarter of midwives believed that a woman should choose her method of delivery. A minority thought a trial was feasible, ethical, or desirable. Female obstetricians were less likely to support a trial than male ones. Whether or not the obstetrician and midwife had children did not influence their responses; nor did the type of unit in which the professionals worked.

A full description of qualitative findings will be presented elsewhere. Most respondents providing qualitative commentary wished they had the results of a randomised controlled trial. Obstetricians and midwives who were opposed to a trial offered similar reasons, motivated by unease with routine caesarean section (interference with nature, maternal morbidity, and impact on organisational resources and professional roles). Marked differences occurred in the responses of health professionals who supported a trial: obstetricians mainly believed that lack of evidence prevented women making informed choices, whereas midwives were confident that a trial would prove that vaginal birth was superior.

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Findings of survey. Values are numbers (with rounded percentages) of participants unless otherwise indicated

Survey question	Answer	Consultant obstetricians: All (n=660)	Male (n=468)	Female (n=188)*	χ^2 test comparing sexes†	Heads of midwifery (n=123)	χ^2 test comparing professional groups‡
Do you believe that primigravid women (in the absence of clinical indications) should choose their method of delivery?	Yes	321 (49)	254 (54)	67 (36)	P<0.001	33 (27)	P<0.001
	No	325 (49)	207 (44)	117 (62)		85 (69)	
	Missing	14 (2)	7 (1)	4 (2)		5 (4)	
Is a randomised controlled trial of elective caesarean section *v* vaginal birth ethical?	Yes	246 (37)	189 (40)	57 (30)	P=0.013	26 (21)	P<0.001
	No	367 (56)	252 (54)	114 (61)		86 (70)	
	Missing	47 (7)	27 (6)	17 (9)		11 (9)	
Is a randomised controlled trial of elective caesarean section *v* vaginal birth feasible?	Yes	159 (24)	128 (27)	31 (17)	P=0.001	35 (29)	P=0.32
	No	434 (66)	297 (64)	136 (73)		72 (59)	
	Missing	67 (10)	43 (9)	20 (11)		16 (13)	
Is a randomised controlled trial of elective caesarean section *v* vaginal birth desirable?	Yes	294 (45)	218 (47)	76 (41)	P=0.15	39 (32)	P=0.005
	No	318 (48)	223 (48)	94 (50)		73 (59)	
	Missing	48 (7)	27 (6)	17 (9)		11 (9)	
Would you recruit women to a randomised controlled trial of caesarean section *v* vaginal delivery?	Yes	247 (37)	186 (40)	61 (32)	P=0.073	21 (17)	P<0.001
	No	376 (57)	259 (55)	116 (62)		89 (72)	
	Missing	37 (6)	23 (5)	11 (6)		13 (11)	
Would you consider an elective caesarean section for yourself (or partner)?	Yes	216 (33)	180 (39)	35 (19)	(P<0.001)§	9 (7)	(P<0.001)§
	No	316 (48)	189 (40)	127 (68)		100 (81)	
	N/A	98 (15)	80 (17)	18 (10)		0	
	Missing	30 (5)	19 (4)	8 (4)		14 (11)	

*Sex was unknown for four.
†P values for χ^2 test comparing proportions of "yes" replies between sexes for obstetricians.
‡P values for χ^2 test comparing proportions of "yes" replies between professional groups.
§Not applicable. Values have been omitted from the analysis.

What is already known on this topic

Caesarean section, in the absence of clear clinical indication, is one of the most contentious issues in modern obstetrics, fuelling debates about the possible need for a randomised trial of delivery methods

Evidence about the extent to which obstetricians support women's requests for caesarean section is conflicting, and views on the need for a trial of planned caesarean section versus planned vaginal birth have not been reported

What this study adds

A minority of consultant obstetricians and heads of midwifery would support a randomised trial of planned caesarean section compared with planned vaginal birth

Comment

Our quantitative findings indicate that a minority of professionals would recruit to a trial comparing planned caesarean section with planned vaginal birth. However, the qualitative finding—that midwives who favoured a trial did so because of their confidence in the benefits of vaginal birth—adds complexity because it negates the necessary individual professional equipoise.[4] We explored the opinions of senior obstetricians and midwives simultaneously and nationally, and we identified views about a possible randomised trial. To gain unbiased views, we deliberately did not present participants with a protocol, rather than give the impression that a trial was planned. We also believe that evidence about benefits and risks is insufficient to develop a protocol.

If caesarean birth were shown to be as safe as normal birth in a non-inferiority trial, the NHS would have to consider whether it would be willing to offer such a choice, given the huge resource implications.[2] If the cost makes offering choice to all women unfeasible then carrying out a trial would be unethical. The ethical, moral, and practical challenges to a trial are considerable and would require involvement of women and society at large.

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Ten year follow-up of a randomised controlled trial of care in a stroke rehabilitation unit

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Decreased mortality and reduced disability are well recognised short term benefits of care in a stroke unit.[1] Early organised management improves survival up to five years after stroke.[2] Only one study has examined the effects of care in a stroke unit for longer than five years,[3] and it showed that treatment in a combined acute and rehabilitation stroke unit in Norway conferred benefit even 10 years after stroke. We aimed to examine whether the benefits of a non-acute stroke rehabilitation unit persist for 10 years after stroke. This study was a continuation of the five year follow-up by Lincoln and colleagues.[2]

Participants, methods, and results

We identified participants who had been randomly allocated to receive treatment in a non-acute stroke unit or on conventional wards (general medical wards or wards for the elderly) as part of an earlier trial.[4] Ten years after that randomisation, we traced them on hospital and general practice databases. We asked survivors to consent to follow-up with a postal questionnaire. Participants needing help to complete the questionnaire were visited by researchers who were blind to original group allocation and to five year results for individuals.

We recorded place of residence. We used the Barthel index to measure independence in personal activities of daily living[5]: we classified participants as disabled (0-17) or independent (18-20). We obtained age, sex, and date of stroke from previous records. We compared survival for participants in the two groups (stroke unit and conventional ward) over 10 years using Kaplan-Meier survival curves.

In the original study, 176 participants were randomly allocated to receive treatment in a stroke unit and 139 to receive treatment on a conventional

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