International Journal of Gynecology & Obstetrics 75 (2001) S59–S66

International Journal of GYNECOLOGY & OBSTETRICS

www.elsevier.com/locate/ijgo

The opinion of Brazilian women regarding vaginal labor and cesarean section

M.J.D. Osis[a,*], K.S. Pádua[a], G.A. Duarte[a], T.R. Souza[a], A. Faúndes[a,b]

[a] *Center for Research into Maternal-Infant Diseases of Campinas (CEMICAMP), Campinas, Brazil*
[b] *Department of Obstetrics and Gynecology, FCM, State University of Campinas (UNICAMP) Campinas, Brazil*

Abstract

Objectives: The opinions of Brazilian women regarding vaginal delivery and cesarean sections was studied. *Methods:* Six hundred and fifty-six women who had given birth in seven hospitals in São Paulo and Pernambuco, using the Public Health Service, were interviewed. The opinions of women who had delivered only by cesarean section was compared with those of women who had had at least one vaginal delivery. *Results:* Significantly more women who had experienced at least one vaginal delivery considered this to be the best way of giving birth (90.4% vs. 75.9% among C-section-only women). Similar proportions in both groups (45.5% and 42.8%) stated that vaginal labor is better because it causes less pain and suffering for the woman. Significantly more women who had experienced a vaginal labor (47.1% vs. 30.3%) reported that it had no disadvantage. More women who had only had cesarean sections referred not having contractions/pain as an advantage of this method (56.7% vs. 41.7%). *Conclusions:* Apparently, pain and women's perception of pain were the characteristics which differentiated women with history of vaginal delivery from those with cesarean sections in the sample studied. However, the opinion that vaginal delivery is better than cesarean section was expressed independently of the recognition that pain could be its main disadvantage.

Keywords: Cesarean section; Vaginal labor; Women's opinion; Pain

1. Introduction

Latin America is one of the regions with the highest rates of cesarean sections in the world, with a tendency towards further increase. Recent estimates indicate that the incidence of cesarean sections varies between 16.8 and 40% in most Latin American countries; and that this rate is higher in private hospitals than in state-run hospitals; also that it is greater in countries with higher per capita gross domestic product. In Brazil, the proportion of cesarean sections paid

* Corresponding author.
E-mail address: mjosis@cemicamp.org.br (M.J.D. Osis).

0020-7292/01/$20.00
PII: S0020-7292(01)00518-5

by the Public Health System (SUS) in 1997 was 31.97% [1]. The Live Births Information System (SINASC) calculates that in 1998, 38.1% of births were carried out via cesarean section [2]. Since the World Health Organization (WHO) indicates a maximum of 15% cesarean deliveries to be desirable, it is clear that the number of unnecessary cesarean sections performed annually in Brazil is very high [3].

Brazilian figures for cesarean sections also show significant regional differences: they reach 52% in São Paulo, 45% in the southern region and 20% in the north-east. The incidence of cesarean sections is also greater among women with more years of education and among those who delivered in private hospitals [4,5].

The high proportion of cesarean sections cannot be explained by an excess of high risk deliveries in public hospitals, as over 90% of all births occur in hospital. In addition, the highest cesarean sections rates occur in hospitals caring for women who have private health insurance and better socioeconomic standards, among whom the incidence of conditions associated with high obstetric risk is the lowest [4,6].

This high prevalence and the higher risks for both mother and child with cesarean sections, has led to the search for reasons that could explain why this type of delivery has become the most popular in Brazil. Faúndes and Cecatti [7] suggested that, on the one hand, doctors tend to prefer cesarean sections, considering them more convenient since they fear accusations of technical inability, if confronted with a complicated vaginal delivery, added to the shorter time required to carry out a cesarean section as compared with a vaginal delivery. On the other hand, according to these authors, women also show a strong preference for this kind of delivery, associated with the fear of vaginal labor, specifically the pain, as well as their belief that this form of labor is riskier for the baby and that it may have a negative effect on their sexual life.

The relevance of women's preference for cesarean sections as a factor in explaining the high proportion of cesarean sections has been questioned and refuted by some authors, based on studies in Belo Horizonte [8], Natal and Porto Alegre [5]. Such studies pointed out that the majority of interviewees wanted to have a vaginal birth, and that they considered this the best type of delivery, particularly because of the rapid recovery.

This paper presents results of a study on the opinions regarding vaginal birth and cesarean section, among women delivered at hospitals located in the states of São Paulo and Pernambuco. These women took part in the Latin American Study of Cesarean Sections which focused on the introduction of a second professional opinion when deciding whether or not to carry out this intervention.

2. Subjects and methods

One strategy that has been proposed to reduce the rates of cesarean sections is the introduction of a second technical opinion before a decision to perform surgery is made [9,10]. Basically, this strategy involves the doctor treating a woman in labor consulting another professional of equal or higher rank (consultant) before taking the decision to perform an elective or non-elective cesarean section. The consultant and the doctor treating the woman would evaluate the situation based upon written parameters and criteria, following a decision-making process, which incorporate all available scientific evidence.

No interventions have been rigorously tested in Latin America, to support recommendations that could lead to an adequate and justifiable level of cesarean sections. Thus, a research project called the Latin American Cesarean Section Study (ELAC), was carried out, involving approximately 40 hospitals from five Latin American countries, which tested the strategy of the second opinion as an intervention to reduce unnecessary cesarean sections in a scientifically rigorous manner.

Parallel to this clinical study, a social module was also developed as part of ELAC, aiming to gather information on the physicians perception on the usefulness of the second opinion strategy. A sample of the women were also interviewed to obtain information on their opinion on vaginal

delivery, cesarean section and the care received during labor.

In Brazil, four hospitals from the States of São Paulo (São Paulo city, Campinas, Taubaté and Botucatu) and Pernambuco (all from Recife) took part in the ELAC. The hospitals involved were divided into two groups: intervention, in which the strategy of second opinion was applied (one in Campinas, one in Botucatu and one in Recife) and control hospitals, in which the normal routines were maintained (one in São Paulo, one in Taubaté and two in Recife).

In April 2000, 656 women, in these hospitals, who gave birth during the fifth month of the intervention were selected and interviewed. In the intervention hospitals, only those who had passed through the intervention strategy were included, independent of the type of delivery, totaling 230 women. In the control hospitals 426 women who had had cesarean sections were interviewed, excluding those submitted to emergency interventions.

Specially-trained interviewers made daily visits to the hospitals and identified the women selected for interview using the daily register maintained by the ELAC coordinator in each hospital. The register recorded which women had, on the previous day, received a second opinion (intervention hospitals) or had had a cesarean section (control hospitals).

A structured, pre-tested questionnaire was used for the interviews. It has the following sections: interview identification, sociodemographic and reproductive profile, treatment process, perception of vaginal delivery and of cesarean sections.

An informed consent form, especially prepared for the study and approved by an ethics committee, was read to all women invited to take part in the study. After the reading, the women were given the opportunity to ask questions and, finally, their consent was requested for participation in the study. The interview was carried out immediately after consent, seeking the maximum possible privacy.

The information collected through the questionnaires was organized in a database, using the Statistical Package for Social Sciences for Personal Computers (SPSS-PC). The differences between the groups were evaluated by the chi-square test and the Fisher Exact test [11] and the significance level was established at 5%.

3. Results

3.1. Characteristics of the sample

Sixteen percent of the women in the sample studied were aged 19 or less, a little more than half were aged between 20 and 29 (56%) and approximately 28% were aged 30 or over. Approximately two-thirds (67.5%) declared to have attended school for a maximum of 8 years, 30% had 9 or more years of education and less than 3% had never been to school.

The majority of the sample had had cesarean sections only (77%), less than 1% had had vaginal deliveries only and 22% had had both types of deliveries. The sample was divided in two groups for this analyses: those who had had cesarean sections only and women who had had at least one vaginal delivery. This last group included women with only vaginal or both types of deliveries.

3.2. Women's opinion

The majority of women in the two groups stated that vaginal was the best type of delivery (Table 1). However, the proportion of women who expressed preference for the vaginal route was significantly greater (90%) among those who had experienced both types of deliveries than among those who had only had cesarean sections (75%).

When the women were questioned as to why they preferred vaginal birth, almost half of those who had experienced both types of delivery and a little over two-fifths of the other group referred to feeling less pain. More women who had only experienced cesarean sections (41%) mentioned that recovery was quicker, compared with 31% of the group who had had at least one vaginal delivery. Conversely, more women with experience of both types of labor (29%) compared with those who had only experienced cesarean sections (18%), mentioned the possibility of getting back

Table 1
Type of labor which women consider better, and main reasons for this, according to birthing history

	Vaginal and cesarean section	Cesarean section only	*P*
Preferred mode of delivery			
Vaginal	90.4	75.9	< 0.001
Cesarean section	9.6	24.1	
Total	146[a]	452[b]	
Reasons for considering vaginal delivery better			
Less pain/suffering for the woman	45.5	42.8	0.677
Quick and easy recovery	31.1	41.3	0.050
Possibility of taking up daily life/ walking soon/leaving hospital	28.8	17.9	0.013
Total	132	341[c]	
Reasons for considering cesarean sections better			
Less pain/suffering during labor	64	77	0.326
It is quicker	14	9	0.627
Less difficult, more comfortable for the woman	7	6	0.580
Total	14	109	

[a] Two women were unable to answer which was the best type of labor.
[b] Fifteen women preferred either of the two and 41 were unable to answer which was the best type of labor.
[c] Two women were unable to answer which was the best type of labor, and did not respond.

Table 2
Main advantages and disadvantages of vaginal labor, according to birthing history

	Vaginal and cesarean section	Cesarean section only	*P*
Advantages			
The woman recovers more rapidly	65.6	66.0	0.989
The post-partum period is less painful	38.6	38.0	0.971
Can walk sooner	35.9	37.4	0.818
It is more natural/normal	23.4	21.9	0.775
The woman spends less time in hospital	20.7	17.4	0.439
The woman needs less care	19.3	9.1	0.001
Total	145[a]	471[b]	
Disadvantages			< 0.001
None	47.1	30.3	0.004
Feel a lot of pain/it is more painful	31.4	45.4	0.935
It lasts longer/it is more tiring	22.1	23.0	
Total	140[c]	409[d]	

[a] Two women were unable to answer and information was missing from one woman.
[b] Thirty-five women were unable to answer and information was missing from two women.
[c] Six women were unable to answer and information was missing from two women.
[d] Fifty-eight women were unable to answer and information was missing from one woman.

to daily life/walking sooner or leaving hospital earlier, as a reason for considering vaginal delivery better. This difference was statistically significant (Table 1).

There were no differences between the two groups regarding the main reasons for considering cesarean section to be the best form of labor, although more women who had had only cesarean sections (77%), compared with 64% of the other group, referred to less pain at the time of labor as a reason, and more of the women who had had at least one vaginal labor (14% and 9%, respectively) said that cesarean section is quicker. Similar proportions in both groups, between 6% and 7%, stated that cesarean sections were more convenient for women (Table 1).

Two-thirds of the women in both groups indicated that the main advantage of vaginal delivery was faster recovery, and nearly two-fifths stated that women feel less pain after delivery (Table 2). The group that had experienced vaginal birth mentioned more frequently the advantage of the woman requiring less care after this form of delivery, whilst the other group mentioned this reason significantly less (19% vs. 9%). Significantly more women who had experienced vaginal delivery declared that this type of birth had no disadvantages (47% compared with 30% of the other group). Conversely, significantly more women who had had cesarean sections only (45%) than those who had experienced both types of birth (31%) said that vaginal delivery was more painful. Similar percentages in both groups (a little over one-fifth) said that one disadvantage of vaginal labor is that it is more tiring/takes longer (Table 2).

Almost one-third of the women who had experienced both types of labor and approximately one-fifth of those who had had cesarean sections only said that this form of labor had no advantages. A significantly higher proportion of the women who had had cesarean sections only referred 'not having contractions/pain' as the main advantage of cesarean section (57%), compared with 42% of the other group. The capacity to save the baby's life when at risk was also mentioned significantly more often (22%) by of women who had had at least one vaginal labor than by those in the other group (12%). As to the disadvantages of cesarean section, approximately three-quarters of women mentioned more pain after delivery,

Table 3
Main advantages and disadvantages of cesarean sections, according to birthing history

	Vaginal and cesarean section	Cesarean section only	*P*
Advantages			
No contractions/pain	41.7	56.7	0.002
No advantage	30.6	25.6	0.279
Saves the baby when it is at risk	21.5	11.9	0.005
It is quicker	12.5	11.5	0.869
Total	144[a]	485[b]	
Disadvantages			
Post-partum is more painful	76.2	75.0	0.850
Woman takes longer to recover	35.7	35.1	0.976
Unable to walk straight away	33.6	38.7	0.307
Woman has to stay longer in hospital	16.1	11.1	0.143
Needs special care	12.6	11.0	0.677
Total	143[c]	496[d]	

[a] Three women were unable to answer and information was missing from one woman.
[b] Twenty-three women were unable to answer.
[c] Three women were unable to answer and information was missing from two women.
[d] Ten women were unable to answer and information was missing from two women.

approximately one-third referred slower recovery and a similar proportion that 'it takes longer to be able to walk'. There were no differences between the groups (Table 3).

The women were asked when, in their opinion, a cesarean section is necessary. Among the circumstances mentioned most, significantly more interviewees who had experienced vaginal deliveries than those who had had cesarean sections only referred to the situations of the baby being at risk ($P < 0.03$) or being in the wrong position ($P < 0.01$). Conversely, women who had had cesarean sections only mentioned narrow pelvis as reason for surgical delivery twice as often as those who had at least one vaginal birth ($P < 0.001$). To have a cesarean to obtain a tubal ligation was referred by few, but significantly more women who had experienced vaginal delivery than among those of the other group ($P < 0.03$). Approximately 30% in both groups gave 'there is no alternative/no other option' and the same proportion 'women's illnesses' as reason for cesarean delivery. Finally, approximately one-tenth in both groups mentioned a pregnancy that has passed its term (Table 4).

4. Discussion

Generally, the women of the sample studied were explicit in their preference for vaginal labor, especially those who had already experienced it. It is important to note that all but two of the women in the group who had vaginal deliveries had also had cesarean section, meaning that they could compare both experiences. This may have contributed to their more favorable opinion of vaginal delivery. The positive evaluation of vaginal delivery reached to the point that almost half of those with previous experience did not refer any disadvantage of this mode of delivery, and almost one-third of them did not note any advantage of having a surgical delivery.

Most interviewees made reference to pain as the main justification for the preference of either method of delivery, as well as among the main advantage (less pain) or disadvantage (more pain) of one or the other form of birth. The women interviewed distinguished between pain during labor, caused by the uterine contractions, as attribute of vaginal delivery, and the pain in the post-partum period, characteristic of a cesarean section. It appears that in the comparison of these two kind of pains, the women interviewed concluded that labor pain was easier to tolerate and allows women to reinitiate their normal activities sooner, while the pain after cesarean section was perceived as more persistent and incapacitating for a longer period. The dismissing of labor pain as a reason to avoid vaginal delivery was even greater among women who had had the chance of experiencing the two forms of delivery.

Table 4
Women's opinion about when it is necessary to carry out a cesarean section, according to birthing history

A cesarean section is necessary when	Vaginal and cesarean section	Cesarean section only	*P*
The baby is at risk	38.5	28.2	0.027
There is no other alternative/option	34.8	29.8	0.314
The woman has a serious illness	30.4	30.4	0.927
The baby is in the wrong position	25.2	15.1	0.009
The woman has a narrow pelvis	13.3	29.2	< 0.001
The pregnancy is past its term	10.4	11.0	0.966
The woman is going to be sterilized	4.4	1.2	0.028[a]
Total	135[b]	483[c]	

[a] Exact Fisher test.
[b] Twelve women were unable to answer, and information was missing from one woman.
[c] Twenty-one women were unable to answer and information was missing from four women.

The role of pain in determining the preference of women for one or another type of delivery is in agreement with the concept that the myths around labor pain have plagued vaginal delivery during the last few decades. Such myths are supported by the traumatic birth experiences undergone by women and narrated to subsequent generations, which are the result of poor pre-natal care and low quality, dehumanized childbirth, not exceptionally observed in Brazil, but as also in many other countries [7].

The fear of pain has crystallized in our culture as an unquestionable fact, taken on by many, especially doctors, as an argument to justify the demand of women for cesarean sections [12]. However, our results, as well as studies with qualitative components [5,8], show that women tend to have a critical stance in relation to the supposed advantage of the cesarean section regarding pain. It appears that considering the overall picture, most women conclude that labor pain is not as relevant as to overcome other advantages of vaginal birth and disadvantages of cesarean section.

On the other hand, these results make it clear that from the woman's perspective, cesarean section is viewed as a last resource, when there is no other manner to achieve the safe delivery of the baby. However, the definition of the circumstances when there is no other alternative apart from cesarean section, lies exclusively with the doctor, viewed as the legitimate holder of the knowledge necessary to decide what to do. This leads to the discussion of medicalization of labor and the bio-medical paradigm that prevails today in western medicine, including Brazil. This paradigm starts by defining the abnormal or pathological, as the presence symptoms, or as deviations from a established pattern. Thus, the variability that can occur during labor favors its categorization as abnormal and, therefore, requiring surgical intervention. From this perspective, the tendency is for increased intervention, by narrowing the limits of normalcy, a tendency which is further stimulated by the incompatibility between the normal duration of labor and doctors' working arrangements [5,7,13].

The results presented here are in agreement with two other studies also carried out in other cities in Brazil [5,8], and raise doubts over the main arguments put forward in the 1990s to explain the high rates of cesarean sections in the country [7].

It would be easy to conclude that the responsibility for the high cesarean section rate falls over the other participants in this process, i.e. the doctors. To attribute to these professionals the entire responsibility for the excessive number of cesarean sections would be simplistic, as it would ignore the interactive aspects of the relationship between doctors and women, as well as the wider social context of the current health system where both are placed. Requesting and considering women's opinions on the best way they would like to give birth is an integral part of the process to recover the woman's role of protagonist in childbirth. This is a recent trend in Brazil, which above all, should be part of the recovery of mutual respect between health professionals and women in everything that is related to childbirth. A deeper exploration of the perception of these processes and of the complexity of the relationships between all the participants involved is required.

Acknowledgements

To the World Health Organization (WHO), the Fundo de Apoio ao Ensino e à Pesquisa (Fund in Support of Teaching and Research) of the State University of Campinas (FAEP/UNICAMP) and the Fundação de Amparo à Pesquisa do Estado de São Paulo (Foundation in Support of Research of the State of São Paulo) — FAPESP, for the financial support for this study, and to all those who offered their opinions and suggestions.

References

[1] Ministry of Health/SE/ DATASUS-SUS Hospitals Information System (SH/SUS). Indicators and basic data, Brazil, 1998, Available at (www.datasus.gov.br) (last accessed on February 15th 2001) (in Portuguese).

[2] SINASC. Live Birth Information System, 1998 Available at (www.datasus.gov.br) (last accessed on February 15th 2001) (in Portuguese).

[3] Belizan J, Althabe F, Barros FC, Alexander S. Rates and implications of cesarean sections in Latin America: ecological study. Br Med J 1999;319:1397–1402.

[4] BEMFAM, Macro International. Demography and health survey (DHS), Brazil, 1996. Rio de Janeiro: Macro International Inc, 1997 (in Portuguese).
[5] Hopkins K. Are Brazilian women really choosing to deliver by cesarean? Soc Sci Med 2000;51:725–740.
[6] OPS. Health in Americas. OPS. Washington: OPS, p. 288 (in Spanish).
[7] Faúndes A, Cecatti JG. A operação cesárea no Brasil. Incidência, tendências, causas, conseqüências e propostas de ação. Cad Saude Publica 1991;7:150–173.
[8] Perpétuo IHO, Bessa GH, Fonseca MC. Parto cesáreo: uma análise da perspectiva das mulheres de Belo Horizonte. XI Encontro Nacional de Estudos Populacionais da Associação Brasileira de Estudos Populacionais (ABEP). Caxambú, MG, 1998:95–119.
[9] Myers AS, Gleicher N. A successful program to lower cesarean-section rates. N Engl J Med 1988;319: 1511–1516.
[10] Wolfe S. Unnecessary cesarean sections: curing a national epidemic. Public Citizen Health Res Group 1994;10:1–7.
[11] Armitage P, Berry G. Statistical Methods in Medical Research. 2nd ed Oxford: Blackwell Scientific Publications, 1987.
[12] Mello e Souza C. C-sections as ideal births: the cultural constructions of beneficence and patient's rights in Brazil. Cambridge Quart Healthcare Ethics 1994;3:358–366.
[13] Chacham AS. A medicalização do corpo feminino e a incidência do parto cesáreo em Belo Horizonte. (Ph.D. Thesis). Belo Horizonte, Brazil: CEDEPLAR/FACE/Universidade Federal de Minas Gerais, 1999.