

Most obstetricians and partners of obstetricians in Rio de Janeiro, Brazil, deliver their own children through Caesarean: a cross-sectional survey

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Abstract

Objective: To find out the preferred and actual mode of delivery of obstetricians' own children. **Design:** Cross-sectional survey. **Setting:** Three Congresses of Gynecology and Obstetrics and four large maternity hospitals in Rio de Janeiro, Brazil. **Population:** Physicians who held a specialty degree in gynecology & obstetrics or were trainees in this specialty and worked in the state of Rio de Janeiro. **Methods:** Prevalence and 95% confidence interval. **Main Outcome Measures:** Preferred and actual mode of delivery for own children. **Results:** A total of 465 participants answered the questionnaire in the three Congresses and four maternity hospitals. Seventy six percent (95% CI 71 - 81) of the 262 participants who delivered at least one child had Caesarean for the first child. Seventy two percent (95% CI 68 - 76) claimed they would prefer a vaginal birth for their own children, but only a third of those (34%) delivered vaginally. **Conclusions:** In a group of well informed, socially privileged and empowered women (especially regarding childbirth decisions), the most common mode of delivery was Caesarean, not the natural vaginal birth. Thus, even for those who want to try and reduce the number of Caesareans, it appears that their success will demand broader strategies, than simply to focus on physicians perversely forcing (or talking into) powerless misinformed women to deliver through C-section; this narrative seems to be wrong, at least in the sample of women in our study. **Tweetable** Among obstetricians in Rio de Janeiro 76% had a Caesarean for their own children

Introduction

The popularity of Caesarean birth (C-section) is probably larger in Brazil than in any other country,¹ with 45% and 90% of births in the public and private health sector respectively in primiparous women; 55% of all such births.² The large number of C-sections may be due not to medical necessity but, it has been suggested, to perverse financial incentives for doctors or doctor's fear of malpractice suits involving complications from natural births.¹ Financial incentives and fear of being sued may partly explain why 56% of primiparous Brazilian women in the private health sector expressed a desire to deliver vaginally at the start of pregnancy, but only 9% ended up doing so.²

People, especially experts, are inherently skilled and experienced in successfully making difficult decisions in real life situations.³ On the other hand, certain circumstances lead experts to make not the best decisions, but decisions that protect them from being sued, are influenced by their innumeracy when interpreting statistical evidence or are advantageous for them financially. This “*SIC*” syndrome (*S* elf-defense, *I* nnumeracy and *C* onflict of interest) is common among physicians.⁴

One way to try and avoid the physicians “*SIC*” syndrome, at least partially,⁴ when trying to elucidate the causes of medical decision making, is to ask the physician not what she thinks is best for *you*, but rather,

what she thinks is best for *her* . Or even better, is to find out *what would she do if she were you* .⁵⁻¹³ In this way financial conflict of interest and defensive medicine are avoided, though innumeracy remains.

In short, the number of C-sections in Brazil is very large compared to other countries.¹⁴ Perverse financial incentives and fear of being sued may partly explain why obstetricians in Brazil choose C-section rather than vaginal birth for their patients¹⁻². Obstetricians are inherently skilled and experienced in making decisions about child birth. However, due to the “*SIC*” syndrome,⁴ the decisions they make regarding their patients may be diverted from the best interest of the patients. Asking obstetricians what is their preferred mode of delivery *for their own children* unveils an answer that is true to their expert skilled judgment (to the best of their knowledge), and is not distorted by perverse financial interests or fear of being sued. Even better, it is to find out *what the obstetrician actually does* when she or he is *in your position* . In this way, suddenly, the health (and convenience) of the mother and the health of the child become the sole focus, stripped of possible perverse incentives.

The aims of this study were twofold: to find out the *preferences* of obstetricians regarding the mode of delivery (C-section or vaginal) for the birth of their own children or that of their partners; to find out the *actual* mode of delivery amongst obstetricians and their partners for the birth of their own children.

Methods

Study design, settings and participants

This was a cross-sectional survey carried out in Rio de Janeiro, Brazil. We applied the questionnaire in four settings (one setting was not located in Rio de Janeiro, but only participants residents in Rio de Janeiro were recruited): 41st Rio de Janeiro Congress of Gynecology and Obstetrics (SGORJ) in 6-8 July 2017; 57th Brazilian Congress of Gynecology and Obstetrics (FEBRASGO) in Belem 15-18 November 2017; four large maternity hospitals in Rio de Janeiro, December 2017 – April 2018; 42nd Rio de Janeiro Congress of Gynecology and Obstetrics (SGORJ) in 3-5 May 2018.

In each setting we approached the potential participant, asked whether she or he was a gynecologist or obstetrician (or a trainee) and whether she or he resided and worked in Rio de Janeiro. If yes, we then explained the objectives of the survey and invited her or him to participate. We used the same strategy in all settings paying attention not to hand out a questionnaire again to the same participant that had already answered it in a previous occasion in the survey. The participant then signed the consent form and answered the self-administered anonymous questionnaire.

We obtained ethical approval from the Research Ethics Committee of Pedro Ernesto Hospital/Rio de Janeiro State University (report number 2,138,839). There is no conflict of interests to declare.

Inclusion criteria were to hold a specialty degree in gynecology & obstetrics or to be an enrolled trainee in this specialty and to work as a physician in the state of Rio de Janeiro. Male physicians were included, as information about preference and choice of mode of delivery of the wife of a male participant was obtained from him and not from his wife.

Variables

The main outcome variables were preference and actual mode of delivery. To find out about the preference the question was the following: “In a normal gestation, with 39 weeks of evolving, a single fetus with cephalic presentation with 3.5 kg weight or less, which mode of delivery you would choose for yourself or for your wife/partner?” The options of answers were “vaginal - with analgesia if necessary” or “caesarean”. To find out about the actual mode of delivery, we asked those who reported that they had genetic children, which was the mode of delivery of each birth; the options of answers were “vaginal”, “vaginal with analgesia” or “caesarean” .

Main co-variables were sex, age, reasons for preferring and for choosing C-section or vaginal delivery.

The questionnaire was similar to at least another one that had been used in a similar study in England.¹¹ The

first draft of our questionnaire was initially examined by two obstetricians and then piloted in a group of five obstetricians working in a state hospital in Rio de Janeiro, in February 2017. We changed a few questions after this first round of field testing following their feedback. In March 2017 we piloted the new version in another group of five obstetrics trainees and one experienced consultant obstetrician, who worked in the Pedro Ernesto Hospital, at the University of the State of Rio de Janeiro. After this round we incorporated new suggestions. In April 2017 the questionnaire was examined by an experienced obstetrician who holds a degree in Epidemiology and she suggested a few changes. Still in April 2017, after the new modifications, we applied the questionnaire in a new group of five obstetricians in a state hospital in Rio de Janeiro, who did not make any new suggestions for changes.

Study size

Study size was based on the main aim, that is, to estimate the prevalence of C-section among obstetricians and obstetrician's wives or partners in Rio de Janeiro. According to the General Medical Council, there were 2,748 obstetricians / gynecologists in the state of Rio de Janeiro in 2015.¹⁵ For an expected prevalence of $90\% \pm 5\%$ of C-section in this population, a sample of 132 individuals would be enough. In the most challenging scenario, that is, a prevalence of $50\% \pm 5\%$, we would need 338 participants.

Data analysis

We estimated prevalence and 95% confidence interval. To ensure that there was no duplication of the same participant answering the questionnaire more than once in different settings, we cross checked the information about sex, year of graduation and date of birth. We built the database in EXCEL and analyzed using Epi InfoTM and SPSSTM.

Results

There were 157 obstetricians working in the four large maternity hospitals and 114 answered our questionnaire. In the congresses, it was not possible to obtain information about the exact numbers of obstetricians enrolled, as other specialists such as urologists enrol as well, but the organizers did not have the information of enrolment by specialty. In any case, most were gynaecologists/obstetricians. One of us (ALSM), with the help of a research assistant, personally approached all participants who attended the three congresses. The number of physicians enrolled in the Rio de Janeiro congress in 2017 was 550 and we managed to approach 216. Of these, 212 answered the questionnaire; three refused to answer and one did not return it. In the Belém congress there were 207 physicians from Rio de Janeiro enrolled. Of these, we managed to approach 60, but 7 had already answered the questionnaire in the previous congress, three did not return the questionnaire and one refused to answer it. Finally, in the Rio de Janeiro congress in 2018 there were 459 physicians enrolled, but a large number had already answered our questionnaire in the previous congresses or in the hospitals. In this last wave of data collection 139 answered our questionnaire, with one refusal and no unreturned questionnaire. Thus, in total 465 obstetricians answered our questionnaire, with only five refusals and four unreturned questionnaires.

Most participants were female and younger than 50 years of age (mean age 42). Nearly a fifth was trainees and worked only in the private sector (Table 1).

The 72% preference for vaginal birth was similar within the demographic subgroups, except for practice sector: among obstetricians who practiced only in the public sector (131) and only in the private sector (85), the preference for vaginal birth was 80% (95%CI 73 - 86) and 60% (95%CI 49 - 70), respectively (Table 2).

The main reasons selected from a checklist for preferring vaginal birth were speedier recovery and lower risk of postpartum infection. Safety of the baby and the possibility to plan were the main reasons for preferring Caesarean. Safety of the baby was also one of the main reasons for preferring vaginal birth (Table 2).

The most prevalent actual mode of delivery was Caesarean, with 75% (95% CI 68 - 81) of the 181 obstetricians and 79% (95% CI 69 - 86) of the 81 obstetricians' partners delivering the first child through this mode.

Together, 76% (95% CI 71 - 81) of the 262 participants who delivered at least one child had Caesarean for the first child (Table 3).

Among the 200 participants who had a C-section for the first child, there was a medical reason / advice for the C-section in 73% (95% CI 66 - 79); within those who reported that they preferred a vaginal birth this prevalence was 88% (95% CI 81 - 93) while within those who preferred a C-section, this prevalence was 53% (95% CI 42 - 63). (Table 3).

Among the 170 participants who preferred vaginal birth for own child and delivered at least one child, 34% had a vaginal birth for the first child, while among the 90 participants who preferred Caesarean, 96% had a Caesarean for the first child (Table 3).

Discussion

Although we did not use a probabilistic sample to represent the obstetricians of the state of Rio de Janeiro, our convenience sample was relatively large, comprising nearly 20% of the 2,748 registered obstetricians in the state of Rio de Janeiro, and only a few of those approached refused to answer the questionnaire.

Our main finding was that most of the obstetricians delivered their own children through Caesarean. The prevalence of 76% that we found was even higher than the prevalence in the general Brazilian population of primiparous women, of 55%.² The prevalence of Caesareans among obstetricians was higher in Rio de Janeiro than in most other countries where we found analogous studies⁵⁻¹³ and similar to another city in Brazil;¹⁶ the highest prevalence that we found outside Brazil was in Thailand and China, with 80% and 70% of obstetricians delivering their own children through Caesareans, respectively in these two countries.^{7,12} If the main reason for the high number of C-sections in Brazil were perverse financial incentives for physicians, we would expect that obstetricians would deliver the children of their patients through C-section but their own children through vaginal birth. As we found that they deliver their own children mostly through C-section, it appears that there are other more important reasons for the high prevalence of C-sections such as concerns for the health of the mother and child, and the mother's preference.

Interestingly, most obstetricians (72%) claimed they would prefer a vaginal birth for their own children, but only a third of those (34%) delivered vaginally. Similarly, in the general Brazilian population 72% of primiparous women claimed at the beginning of their pregnancy they preferred vaginal birth, but only 43% ended up delivering vaginally in the same pregnancy.² Therefore, obstetricians do to their patients what they do to themselves.

The preference for a Caesarean was high among the obstetricians in our study, nearly 30%, but lower than in a few other countries such as Argentina (30%), the USA (46%), China (53%) and Iran (34%),^{7, 17-19} and higher than in most countries, including England (between 10% and 17%), Israel (9%), Canada (6%), Norway (2%) and Holland (less than 2%)^{5-6, 8, 11-12, 20-27}.

As expected, most Caesareans among participants who preferred vaginal birth were justified on the basis of a medical necessity (nearly nine in ten). More difficult to explain was the far fewer Caesareans that could be justified on the basis of a medical necessity among participants who preferred Caesarean birth (nearly five in ten); after all, medical necessity for a Caesarean should be the same regardless of the preference of the mother for one or other mode of delivery. Maybe, as a Caesarean was already the choice of the mother anyway, regardless of a medical necessity, they were not always informed of the medical necessity or the necessity was not yet clear before the Caesarean procedure started.

In any case, the number of Caesareans for medical reasons was too high compared to other countries. It appears that when any unexpected event happens that might create any difficulty during birth, the obstetrician turns to the C-section. This could explain the paradox why so many obstetricians say they prefer vaginal birth for their own children, but ended up having a Caesarean. Maybe, due to characteristics of their training or specialist education, they lack skills and or confidence to perform a vaginal birth or trust more their skills to perform a Caesarean.

Another alternative to explain this paradox is the social pressure that a woman faces when deciding the mode of delivery for her child. Society expects women to choose the natural alternative. Caesarean is considered the “wrong” option when there is no medical necessity. Women in general and possibly even more so obstetricians, are under pressure to fight against the excess of Caesareans in Brazil. In these circumstances women may say they prefer vaginal birth, but in reality prefer and therefore end up delivering through Caesarean; they may genuinely believe that C-section is the safest mode of delivery nowadays.

In addition to a medical necessity, the Caesarean is also a new medical technology that aims to improve the quality of the birth experience, rather like, for example, some psychotropic drugs and plastic surgeries that are employed not necessarily to treat a disease, but to improve quality of life of people who are not sick. Thus, the increase in the rates of Caesareans may also be a result of the mother’s desire for a more convenient, less painful, less traumatic and safer mode of delivery (even if there is no scientific evidence for that). This desire is expected to be as common among obstetricians as in the general population, and our findings are coherent with this reasoning.

This is not to say that excess of unnecessary Caesareans is not a problem; many obstetricians may be ill informed, ill trained or give way to perverse financial incentives, which lead to C-sections in many instances when the best alternative is a vaginal birth; for example, when the woman prefers a vaginal birth and there is no clear medical reason to perform a Caesarean. Maternities should be well equipped and structured, and professionals well trained and qualified to meet the demands of women who desire a vaginal birth; most obstetricians in our study claimed that their ideal mode of delivery was vaginal, but ended up having a C-section. On the other hand, we also must caution against a too strong and ill informed reaction against the excess of Caesarean births, because it may lead to the stigmatization of women who legitimately choose to have a Caesarean in the absence of a medical necessity.

Maybe one of the motivations for an ill informed reaction against the Caesarean birth is that it is not natural. People tend to believe that what is natural is good – the naturalistic fallacy.²⁸ However, there are many things in life that are natural but are not good, for example, the tendency to be violent and selfish. The fallacy is that what happens in nature is right. But “nature does not dictate what we should accept or how we should live our lives”.²⁹ Vasectomy, the pill, and to choose to be childless are all unnatural legitimate options in a modern world. Giving birth vaginally is not easy for women; often it is a long, painful and dangerous event. There are many imperfections of the human body and mind that are responsible for much human suffering and put life in danger.³⁰⁻³¹ “The body is a bundle of trade-offs. Everything could be better, but only at a cost. . . Your brain could have been bigger, but at the risk of death during birth”. The birth canal is too narrow.³¹ There are several examples of modern preferences for artificial alternatives that are more convenient and agreeable than their natural counterparts. The argument that vaginal birth should be the preferred alternative as opposed to Caesarean based only on the fact that the first is natural and the second artificial, is fallacious and therefore does not help the debate. A rational and useful debate should consider the advantages and disadvantages of each mode of delivery, including the risks and benefits for the health of the mother and the baby (i.e., safety issues), the costs for society and the preferences of the mother. The result of a well informed debate about this issue may be that different societies, different groups within societies and different women within societies may show contrasting attitudes towards the Caesarean and therefore, its rates may vary within and across societies for perfectly legitimate reasons.

Culture is to do the same things in different ways. In every human society, ancient and modern, women deliver babies with assistance at the time of birth, so it is rarely a solitary event. However, the type of help varies between and within societies. For example, women in Holland usually deliver their babies with the assistance of a midwife rather than a physician and often at home rather than in a hospital. Probably a result from this birth configuration is one of the lowest rates of Caesareans in a modern society.²² On the other side of this spectrum are women in Brazil who usually deliver their babies in a hospital and with the assistance of a physician; this birth configuration is arguably one of the reasons for Brazil’s highest rates of Caesareans.²

In a study similar to ours in Norway, in which the prevalence of Caesareans was 27% among obstetricians,

the authors concluded that “The rate of cesarean section in the general population is unlikely to fall as long as so many obstetricians have their own children delivered by cesarean section”;³² even more so in Rio de Janeiro, where we found this prevalence to be 76%. Thus, as in Norway, we concluded that the debate about C-section versus vaginal birth should not focus exclusively on perverse incentives for physicians, on the defence of the natural alternative, or on physicians forcing powerless women to have C-sections against their will.

Conclusion

We showed that in a group of well informed, socially privileged and empowered women (especially regarding childbirth decisions) the most common mode of delivery was Caesarean, not the natural vaginal birth. Thus, even for those who want to try and reduce the number of Caesareans, it appears that their success will demand broader and more sophisticated strategies and actions, than simply to focus on physicians perversely forcing (or talking into) powerless misinformed women to deliver through C-section; this narrative seems to be wrong, at least in the sample of women in our study.

Disclosure of interests

None.

Contribution to authorship

Both authors contributed equally to the conception, planning, conduction, analyses and writing up of the work.

Details of ethics approval

We obtained ethical approval from the Research Ethics Committee of Pedro Ernesto Hospital/Rio de Janeiro State University (report number 2,138,839). Informed consent was obtained from all participants prior to them answering the questionnaire.

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References

1. The Economist. Childbirth Caesar’s legions - The global rise of Caesarean sections is being driven not by medical necessity but by growing wealth—and perverse financial incentives for doctors. *The Economist*, from the print edition, August 15th 2015, New York and São Paulo (<http://www.economist.com/node/21660974/print>).
2. Domingues RMSM, Dias MAB, Nakamura-Pereira M, Torres JA, d’Orsi E, Pereira APE, Schilithz AOC, Leal MC. Process of decision-making regarding the mode of birth in Brazil: from the initial preference of women to the final mode of birth. *Cad. Saúde Pública* 2014; 30 Sup: S101-S116.
3. Klein G. Sources of Power: How People Make Decisions. Cambridge, MA: MIT Press 1999.
4. Gigerenzer G. Risk savvy: how to make good decisions. New York, NY: Viking / Penguin 2014.
5. MacDonald C., Pinion SB, MacLeod UM. Scottish female obstetricians’ views on elective caesarean section and personal choice for delivery. *J Obstet Gynaecol* 2002; 22: 586-9.
6. Bergholt T, Østberg B, Legarth J, Weber T. Danish obstetricians’ personal preference and general attitude to elective cesarean section on maternal request: a nation-wide postal survey. *Acta Obstet Gynecol Scand* 2004; 83: 262-266.
7. Ouyang YQ, Zhang Q. A study on personal mode of delivery among Chinese obstetrician-gynecologists, midwives and nurses. *Arch Gynecol Obstet* 2013; 287: 37-41.
8. Farrell SA, Baskett TF, Farrell KD. The choice of elective cesarean delivery in obstetrics: a voluntary survey of Canadian health care professionals. *Int Urogynecol J Pelvic Floor Dysfunct* 2005; 16: 378-83.

9. Turner CE, Young JM, Solomon MJ, Ludlow J, Benness C, Phipps H. Vaginal delivery compared with elective caesarean section: the views of pregnant women and clinicians. *BJOG* 2008; 115: 1494-502.
10. Arikan, DC, Arikan DC, Özer A, Arikan I, Coskun A, Kiran H. Turkish obstetricians' personal preference for mode of delivery and attitude toward cesarean delivery on maternal request. *Arch Gynecol Obstet* 2011; 284: 543-549.
11. Lightly K, Shaw E, Dailami N, Bisson D. Personal birth preferences and actual mode of delivery outcomes of obstetricians and gynaecologists in South West England; with comparison to regional and national birth statistics. *Eur J Obstet Gynecol Reprod Biol* 2014; 181: 95-98.
12. Kovavisarath E, Ruttanapan K. Self-Preferred Route of Delivery of Thai Obstetricians and Gynecologists. *J Med Assoc Thai* 2016; 99 Suppl 2: S84-90.
13. Aref-Adib M, Vlachodimitropoulou E, Khasriya R, Lamb BW, Selo-Ojeme D. UK O&G trainees' attitudes to caesarean delivery for maternal request. *J Obstet Gynaecol* 2018; 38: 367-371.
14. Betrán AP, Ye J, Moller A-B, Zhang J, Gülmezoglu AM, Torloni MR. The Increasing Trend in Caesarean Section Rates: Global, Regional and National Estimates: 1990-2014. *PLoS ONE* 2016; 11: e0148343. doi:10.1371/journal.pone.0148343.
15. Scheffer, M, Biancarelli A, Cassenote A. Demografia Médica no Brasil 2015. Departamento de Medicina Preventiva, Faculdade de Medicina da USP. Conselho Regional de Medicina do Estado de São Paulo. Conselho Federal de Medicina. São Paulo: 2015.
16. Ferrari J, Lima NM. Atitudes dos profissionais de obstetrícia em relação à escolha da via de parto em Porto Velho, Rondônia, Brasil. *Rev Bioét* 2010; 18: 645-658.
17. Rivo JC, Amyx M, Pingray V, Casale RA, Fiorillo AE, Krupitzki HB, Malamud JD, Mendilaharsu M, Medina ML, del Pino AB, Ribola L, Schwartzman JA, Tartalo GM, Trasmonte M, Varela S, Althabe F, Belizan JM. Obstetrical providers' preferred mode of delivery and attitude towards non-medically indicated caesarean sections: a cross-sectional study. *BJOG* 2018; 125: 1294-1302.
18. Gabbe SG, Holzman GB. Obstetricians' choice of delivery. *Lancet* 2001; 357: 722.
19. Hantoushzadeh S, Rajabzadeh A, Saadati A, Mahdanian A, AshraWnia N, Khazardoost S, Borna S, Maleki M, Shariat M. Cesarean or normal vaginal delivery: overview of physicians' self-preference and suggestion to patients. *Arch Gynecol Obstet* 2009; 280: 33-37.
20. Gonen R, Tamir A, Degani S. Obstetricians' opinions regarding patient choice in cesarean delivery. *Obstet Gynecol* 2002; 99: 577-80.
21. Al-Mufti R, McCarthy A, Fisk NM. Survey of obstetricians' personal preference and discretionary practice. *Eur J Obstet Gynecol Reprod Biol* 1997; 73: 1-4.
22. van der Does J, van Roosmalen J. Obstetricians' choice of delivery. *Eur J Obstet Gynecol Reprod Biol* 2001; 99: 139.
23. Backe B, Salvesen KA, Sviggum O. Norwegian obstetricians prefer vaginal route of delivery. *Lancet* 2002; 359: 629.
24. Jacquemyn Y, Ahankour F, Martens G. Flemish obstetricians' personal preference regarding mode of delivery and attitude towards caesarean section on demand. *Eur J Obstet Gynecol Reprod Biol* 2003; 111: 164-6.
25. Wax JR, Cartin A, Pinette MG, and Blackstone J. Patient choice cesarean-the Maine experience. *Birth* 2005; 32: 203-6.
26. Mc Gurgan P, Coulter-Smith S, O'Donovan PJ. A national confidential survey of obstetrician's personal preferences regarding mode of delivery. *Eur J Obstet Gynecol Reprod Biol* 2001 ; 97: 17-19.
27. Lataifeh I, Zayed F, Al-Kuran O, Al-Mehaisen L, Khriesat W, Khader Y. Jordanian obstetricians' personal preference regarding mode of delivery. *Acta Obstet Gynecol Scand* 2009; 88: 733-6.
28. Pinker S. The blank slate – the modern denial of human nature. London: Penguin Books 2002.
29. Pinker S. How the mind works. London: Penguin Books 1997.
30. Ness RM, Williams GC. How we get sick – the new science of Darwinian medicine. New York: Vintage Books 1996.
31. Nesse RM. Good reasons for bad feelings - Insights from the frontiers of evolutionary psychology. New York: Dutton / Penguin 2019.

32. Finsen V, Storeheier AH, Aasland OG. Cesarean section - Norwegian women do as obstetricians do, not as obstetricians say. *Birth*2008; 35: 117-120.

Table 1) Demographic characteristics of the obstetricians who participated in the survey, Rio de Janeiro, Brazil

| Demographic characteristics | Number (%) |
|-------------------------------------|------------|
| Sex | |
| Female | 351 (75) |
| Male | 114 (25) |
| Age | ?;? |
| 30 | 99 (21) |
| 31-40 | 163 (35) |
| 41-50 | 84 (18) |
| 51-60 | 67 (14)?;? |
| 60 | 52 (11) |
| Qualification ¹ | |
| Obstetrician / Gynaecologist | 351 (78) |
| Trainee in Obstetrics / Gynaecology | 101 (22) |
| Practice sector ² | |
| Public | 131 (34) |
| Private | 85 (22) |
| Both | 171 (44) |
| Total | 465 (100) |

1 – 13 participants did not answer this question; 2- 78 participants, missing information (72 did not practice obstetrics and six did not answer this question).

Table 2) Prevalence (%) and 95% confidence intervals (CI) of obstetricians' self-reported personal preference for her own mode of delivery and that of his partner, and reasons selected from a checklist, Rio de Janeiro, Brazil.

| | % (95% CI) | Number |
|---|--------------|--------|
| Self-reported actual mode of delivery of own first child ¹ | | |
| Vaginal | 14 (10 - 19) | 37 |
| Vaginal with analgesia | 10 (7 - 14) | 25 |
| Caesarean | 76 (71 - 81) | 200 |
| Medical reason / advice for the Caesarean of first child? | | |
| Yes (n=200) | 73 (66 - 79) | 146 |
| Among those who preferred vaginal birth (n=113) ² | 88 (81 - 93) | 99 |
| Among those who preferred Caesarean (n=85) | 53 (42 - 63) | 45 |
| Preferred vaginal for own child (n=170) ^{1,2} | | |
| Vaginal delivery | 21 (15 - 27) | 35 |
| Vaginal delivery with analgesia | 13 (9 - 20) | 23 |
| Caesarean delivery | 66 (58 - 73) | 112 |
| Preferred Caesarean for own child (n=90) ¹ | | |
| Vaginal delivery | 2 (0 - 8) | 2 |
| Vaginal delivery with analgesia | 2 (0 - 8) | 2 |
| Caesarean delivery | 96 (89 - 99) | 86 |

1- Two participants did not answer this question; 2- With analgesia if necessary.

Table 3. Prevalence (%) and 95% confidence intervals (CI) of obstetricians' self-reported own mode of delivery and that of his partner, whether there was a medical reason for the Caesarean, and mode of delivery according to preferred mode of delivery of own child, Rio de Janeiro, Brazil.

| | % (95% CI) | Number |
|---|--------------|--------|
| Self-reported actual mode of delivery of own first child ¹ | | |
| Vaginal | 14 (10 - 19) | 37 |
| Vaginal with analgesia | 10 (7 - 14) | 25 |
| Caesarean | 76 (71 - 81) | 200 |
| Medical reason / advice for the Caesarean of first child? | | |
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| Vaginal delivery with analgesia | 13 (9 - 20) | 23 |
| Caesarean delivery | 66 (58 - 73) | 112 |
| Preferred Caesarean for own child (n=90) ¹ | | |
| Vaginal delivery | 2 (0 - 8) | 2 |
| Vaginal delivery with analgesia | 2 (0 - 8) | 2 |
| Caesarean delivery | 96 (89 - 99) | 86 |

1- Among the 262 participants who had at least one child; 2- Two participants did not answer this question.