

1 Introduction

According to the World Health Organization (WHO), high quality care during childbirth requires "appropriate use of effective clinical and non-clinical interventions, strengthened health infrastructure and optimum skills and attitude of health providers."¹ While high-resource countries often have strong health infrastructures where effective clinical interventions are reliably provided, the assessment and improvement of health care workers' (HCWs') attitudes remains an important concern for the improvement of mothers' care experiences.² In addition to deliberate and abusive behaviors (such as physical and/or verbal violence), unintentionally disrespectful behavior (e.g., using inappropriate vocabulary) has also been reported.^{3,4} To our knowledge, the only quantitative European data come from a survey described in a 2018 letter to the editor stating that 21.2% of women in Italy reported disrespectful behavior during maternity care.⁵ It is critical to measure women's satisfaction with HCWs' behavior from a person-centered perspective, as this may enable us to assess the extent to which service users' experiences of care match their needs, expectations, and values.⁶

The French National Academy of Medicine (*Académie Nationale de Médecine*) has distinguished two types of disrespectful behavior.⁷ The first type is *blatantly inappropriate behavior* (e.g., offensive attitudes or language, inadequate respect for privacy, and insufficient gentleness of care and procedures). The second type is *inconsiderate behavior*, which is defined as a lack of considerate treatment, insufficient listening, and lack of respect for the person receiving care (specifically, providing the woman with inadequate or no information, not allowing shared decision-making, and/or inadequate or inattentive consideration of pain). To our knowledge, however, no subsequent studies have estimated the proportion of women who experience these types of disrespectful behavior in the maternity care sector in France.

As such, the primary aim of this study was to assess the proportion of women reporting blatantly inappropriate behavior by HCWs during childbirth among a representative sample of French women. As a secondary aim, we assessed the proportion of women who felt that they were not treated with consideration by HCWs, using the *Académie Nationale de Médecine*'s definitions as described above.

2 Methods

2.1 Study design, screening, and recruitment

We conducted a multicenter study in the postpartum wards of the 25 French maternity units comprising the AURORE perinatal network during one week in September 2018. This is a large network of facilities; they had, for example, 43,114 live births in 2017 alone. We included all adult women aged 18 years or older who spoke French and had given birth to a viable, live-born child at any of the network's maternity units. Women who had lost children during the first few days after birth and those who declined to participate were excluded. Only 15 of the 25 maternity units in our network had birthing rooms intended for physiologic births, 12 of them equipped with a bathtub. Even when they are available, they are rarely used due to lack of human resources, with midwives usually attending two or three women in labor simultaneously. In France in 2016, 40% of maternity hospitals reported that they had a space dedicated to physiological births, but that the number of midwives was insufficient to allow for one-to-one support.⁸ Only 12% of the maternity hospitals authorized the presence of independent midwives to assist women with a physiological birth project. Consequently, most births that occur in these units have high levels of medical management, including induction (22.6%) and augmentation (52.6%) of labor and epidural pain relief (82.6%); 41.4% of births are attended by physicians and 58.6% by midwives. Midwives attend 87.4% of non-instrumental vaginal births.⁸

2.2 Tool development and data collection

As no validated questionnaires compatible with the two concepts proposed by the *Académie Nationale de Médecine* were available to measure women's satisfaction with HCWs' behaviors, we developed a new questionnaire focusing on women's satisfaction or dissatisfaction related to these "blatantly inappropriate" and "inconsiderate" behaviors.⁷ This

questionnaire is adapted to the French health care context and to the person-centered perspective proposed by the WHO. It was adopted by the AURORE network to identify quality improvement needs. Items were developed with a midwife-led panel of 10 experts representing midwives, obstetricians, psychiatrists, statisticians, and care users. This new Behaviour of the Mother's Caregivers - Satisfaction Questionnaire (BMC-SQ) is available in appendices S1 and S2.

We used the concepts described by the Académie Nationale de Médecine to define our outcomes.⁷ The primary outcome, the concept of blatantly inappropriate behavior, was reported by women when they experienced dissatisfaction with caregiver behavior related to one or more of the following four dimensions: attitude, respect for privacy, language, and/or gentleness of care and procedures.

Our secondary outcome, the concept of inconsiderate behavior, was reported by women when they experienced dissatisfaction with caregiver behavior related to one or more of the following three dimensions: the information provided, women's participation in decision-making, and/or consideration of pain.

We defined the concept of individual propensity as the measure of a woman's tendency to always or never report inappropriate/inconsiderate behaviors, independently of all other variables (known or unknown). Our aim was to assess the magnitude of this individual tendency in the reporting of dissatisfaction, as it is likely to distort women's actual experiences of satisfaction, wherein some women may underreport and some may overreport based on a combination of past experiences and innate qualities that influence socialization into different tolerances for disrespect.

We measured women's satisfaction using self-administered questionnaires to explore satisfaction during pregnancy and then during labor. We used multiple-choice questions on a Likert-like scale (i.e., "completely", "sufficiently", "insufficiently", and "not at all"; see Appendixes S1 and S2) for each of the seven dimensions contained in the two measures of disrespect (blatantly inappropriate and inconsiderate). Each answer was scored from 0 (for "not at all") to 3 (for "completely"). All women with responses of 0 or 1 on at least one of the three or four dimensions of the concepts of consideration or appropriateness were considered dissatisfied for the concept. We were thus able to measure the two constructs by including the responses "not at all" and "insufficiently".

As women in France are usually attended by different healthcare workers during pregnancy and then during labor and birth, we measured women's individual propensity to report blatantly inappropriate/inconsiderate behaviors by comparing their answers about prenatal care with their answers on care during labor and birth. They were classified into two categories: consistent or inconsistent regarding their satisfaction during their pregnancy and then during labor and birth.

Finally, research midwives collected a variety of information from participants' medical records, including their social, demographic, and clinical characteristics (i.e., maternal age, pre-pregnancy body mass index, region of birth, educational level, parity, multiple pregnancy, history of hospitalization for depression, attendance at prenatal birth classes, and early prenatal interview), childbirth factors (i.e., woman transferred before childbirth, term delivery, mode of admission to delivery room, mode of birth, perineal tears or lacerations, analgesia, infant birthweight, breast feeding initiation, neonatal resuscitation, and transfer to the neonatal intensive care unit), and characteristics about the maternity units at which each birth took place (i.e., university or not, public or private, level of neonatal care, and annual volume of births).

The paper-based questionnaire was administered in women's hospital rooms in the postpartum wing of the maternity department. Data were entered into Ennov Clinical software for analysis. Names and identifiable details of respondents were not collected to guarantee participants' anonymity. Recruitment (including describing the study to women) and inclusion of participants, as well as administration of the questionnaire, was managed by midwives not involved in the clinical care of any participants. Individual consent was obtained from all women. In accordance with current French legislation, this study was reported to the French commission for information technology and civil liberties (CNIL; registered number: HCL

18-165). The French ethics research committee Ouest VI, under the authority of the French Directorate General for Health, approved the study (approval number: CPP 1084 RNI).

2.3 Data analysis

All statistical analyses were performed with R software, version 4.0.3.⁹ Depending on their distribution (normal or not normal), quantitative variables were described by their means and standard deviations (SD) and then compared with a Welch two-sample t-test, or by their medians and interquartile ranges [IQR] and then compared by a Wilcoxon rank sum test. Qualitative variables were described according to the number of individuals and percentages and then compared with Fisher's exact test.

We first calculated the percentage of women dissatisfied for each dimension. Then we calculated the percentage dissatisfied for each global concept. These percentages of dissatisfaction were the dependent variables in our study, and 95% confidence intervals (95% CI) were calculated by the exact binomial method.¹⁰

Second, we characterized each woman according to her individual propensity to be consistently satisfied/dissatisfied. Statistically, individual propensity for dissatisfaction was constructed by using a logistic model for clustered data; this model classifies a woman as consistently satisfied if she was satisfied throughout the care (pregnancy and then childbirth) and as consistently dissatisfied if she was dissatisfied throughout care.^{11,12}

In an additional step, to better understand the magnitude of this individual propensity, we compared it to the magnitude of the dissatisfaction in the situation associated with the greatest maternal dissatisfaction in our study — that of women separated from their children within two hours of birth compared with women whose children remained with them — expressed by an odds ratio (OR). Such a separation was generally because the child required

transfer to the neonatal intensive care unit. Finally, we performed a psychometric analysis of our new BMC-SQ, reported in the appendix.

3 Results

A total of 803 women gave birth in the AURORE perinatal network during the study week. Among them, 627 completed the questionnaire in whole or in part (Figure 1). These respondents had a mean age of 31 years (SD = 4.84), and 44% were nulliparous (n=274/625). Most gave birth at term (n = 595/625, 95%), vaginally (n = 507/625, 81%), with regional analgesia (n = 527/627, 84%), in public maternity units (n = 412/627, 66%) (Table 1).

The new BMC-SQ ranked the items that most frequently induced dissatisfaction in descending order: consideration of pain, shared decision-making, information provision, gentleness, attitude, language use, and finally respect for privacy (Table 2). The psychometric analysis is available in appendices S3 and S4.

The result for our primary outcome showed that 5.64% of the women reported dissatisfaction with blatantly inappropriate behavior during childbirth (n = 35/621, 95% CI: 3.96–7.75; Table 2). For the secondary outcomes, 9.82% of women reported inconsiderate behavior during childbirth (n = 61/621, 95% CI: 7.60–12.44; Table 2). In sum, 11.51% of all participants (n = 71/617, 95% CI: 9.10-14.29) reported dissatisfaction with some form of disrespectful behavior (i.e., blatantly inappropriate and/or inconsiderate).

Among the 35 women who reported inappropriate behavior during childbirth, nearly one-third (n = 11/35) also reported inappropriate behavior during prenatal care (see Appendix S5). These participants were considered to have a propensity to report bad experiences, and they were at the highest risk of reporting the same kinds of bad experiences they experienced during pregnancy again during labor and childbirth. A mother being separated from her child within two hours of birth was strongly associated with the reporting of inappropriate behavior with an odds ratio of 2.89, as compared to those who were not separated. In comparison, individual propensity to report dissatisfaction about blatantly inappropriate behaviors was a

risk factor for dissatisfaction at a rate that was 7.54 times greater than dissatisfaction with mother-child separation (due to the transfer of either one of the two to an intensive-care unit). Of the 61 women who reported dissatisfaction due to inconsiderate behavior during childbirth, nearly 23% of them ($n = 14/61$) also reported dissatisfaction during prenatal care. Mother-child separation within two hours of birth was associated with the report of inconsiderate behavior with an odds ratio of 3.03. The individual propensity to report dissatisfaction with inconsiderate behavior was a risk factor for reporting dissatisfaction during childbirth at a rate that was 6.88 times greater than with mother-child separation.

4 Discussion

Among the 627 women who participated in this study in 25 maternity units, 5.62% reported inappropriate HCW behavior, and 9.79% reported inconsiderate HCW behavior during their labor and childbirth. The dimension associated with the most frequent dissatisfaction reported by women was insufficient consideration of their pain, even though around 84% of participants, including those who were dissatisfied, had received epidural or spinal analgesia. The behavior associated with dissatisfaction next most often was failure to involve the woman in decision-making.

Our study was able to identify the percentage of women who were dissatisfied with the behavior of obstetric HCWs in French delivery rooms; however, it is difficult to compare our rate with that in other countries due to the diversity of tools published and utilized in different settings. One European study reported that 3.3% of pregnant women had had an experience of abuse in health care within the past 12 months, though this study did not specify the prevalence of such abuse in labor or birthing rooms.¹³ One Italian study found that a fifth of women reported inappropriate HCW behavior during childbirth,⁵ though the women in this study were interviewed up to 14 years after giving birth. This time gap and the voluntary, non-representative nature of the sample, introduces the risk of selection bias. Two Scandinavian studies, one in Denmark¹⁴ and one in Sweden,¹⁵ reported that dissatisfaction rates appear to increase with time since birth; women reported birth experiences less positively at a substantial interval after giving birth compared with their assessments shortly after the event. Our study found that among the women reporting blatantly inappropriate and inconsiderate behavior while giving birth, around 33% and nearly 23%, respectively, also reported the corresponding behavior during prenatal care. These findings indicate a possibly high rate of disrespectful care toward some women who may be more affected by this type of care and/or may find it more difficult to report. As indicated by the WHO study in low-

resource countries, this propensity may be attributable to the fact that some women are more prone to discrimination (and therefore inappropriate behavior) than others.¹⁶ Some variation in perceptions of care may also be explained by timing of the questionnaire. Satisfaction and dissatisfaction with the quality of care may vary over time. In addition, women may not always clearly differentiate between the different types and dimensions of satisfaction that we have tried to investigate.

The principal strength of this study is that it is the first to quantify the proportion of women who reported both satisfaction and dissatisfaction about HCW behavior in delivery rooms in France. This study included all the women giving birth in our geographic zone for a continuous period of time, regardless of mode of childbirth. Only 2% of the initial sample did not meet our inclusion criteria. However, it is possible that women younger than 18 years of age and/or women of any age who did not speak French were at greater risk of discrimination and more inappropriate and/or inconsiderate professional treatment.^{17,18} Further, the 627 participants whose responses were analyzed in this study had characteristics similar to those of women giving birth throughout France (i.e., for mean age, parity, proportion of multiple pregnancies, mode of labor onset, and mode of childbirth).^{8,19}

Our study also has some limitations. We were limited to using a non-validated questionnaire; we nonetheless tested its psychometric qualities and found them acceptable, which strengthens the internal validity of our study. In addition, 18% of the initial sample declined to participate, thus we have no way of knowing how their data might have affected our findings. Our study may also have been conducted too soon after birth. A survey performed outside clinical settings and at a longer time after childbirth might have provided a more accurate assessment of women's satisfaction with the benefit of hindsight. In any case, additional research is required to confirm our results both in France and elsewhere in Europe.

Qualitative studies are also required to help professionals better understand how to improve the experience of obstetric care and childbirth for pregnant women.

4.1 Clinical Implications

Our findings have three main implications for clinical care. The first involves the consideration of pain. In a sample in which 84% of participants were treated with epidural or spinal analgesia, we found that medically assisted pain relief did not prevent dissatisfaction with how HCWs dealt with this pain. On the one hand, epidural (including combined spinal-epidural) analgesia is a highly effective technique for managing pain.²⁰ On the other hand, delayed or ineffective analgesia and treatment-related side-effects can contribute to a woman's dissatisfaction.²¹ Although some studies have found that epidural analgesia may increase satisfaction among women who are giving birth, the level of evidence is low.^{20(p)} One clinical trial found that women who received epidural analgesia were significantly less satisfied than those who did not.²² These findings suggest that clinicians should consistently distinguish between the pharmacological treatment of pain and the consideration of women's expressions of pain, and be continuously attentive to hearing and acknowledging their feelings. Some women may, for example, want more support to manage pain, but not necessarily an epidural or other pharmacological options. One-to-one labor support and hydrotherapy may be desirable in these instances. In addition, the involvement of midwife-led continuity models of care would offer an opportunity to improve women's satisfaction, especially regarding the inadequate consideration of their pain.²³ Unfortunately, as current French health policy makes implementation of midwifery and doula models of care difficult, the potential impact of these approaches could not be evaluated in our study.

The second implication concerns women's dissatisfaction with inadequate provision of information and shared medical decision-making. These factors are known to be related to dissatisfaction with the birthing experience.²⁴ Shared decision-making is a complex process

(compared, for example, to respect for privacy) that only a few HCWs appear to have mastered. As a result, it is a major source of considerable dissatisfaction among women. Interventions have already been tested to improve shared decision making.^{25,26} The French National Authority for Health (HAS) has established a methodology for producing shared decision-support sheets, and we encourage the professional societies for midwives, obstetricians, and anesthetists to use this methodology to develop decision aids for all the usual interventions in maternity wards.²⁷

Third, we found that mother-child separation was the independent variable most strongly associated with women's reporting of dissatisfaction in our study. Ideally mother and baby should remain together based on the principles of family-centered care for mothers and newborns.²⁸ Further research is also needed to better understand the effects of both the specific neonatal conditions (causes of separation) and of separation itself on the mothers' experience of care. This understanding will allow us to improve the pre-birth preparation of women for care protocols followed when a neonate requires extra care. In addition, teams might explore strategies for keeping mother and baby together even when more care is needed and/or to better support families when separation cannot be avoided.

Our findings also encourage us to think about how health care systems can recognize and implement learnings from women's experiences to provide the resources and supports necessary for clinicians to provide the kind of care that women want—the care they deserve. Previous studies suggest that it is possible to improve satisfaction among women who are giving birth by adequately preparing them for the event and employing midwives to provide care for low-risk women, and preferably one midwife for each woman.^{22,29} We must also consider how to prepare and train HCWs to better listen and respond to women's voices. Continuing education using service user actors might be one strategy to be seriously considered.³⁰

4.2 Conclusion

Most of the women in this study were satisfied with how HCWs behaved towards them in the delivery room: fewer than 1 in 20 women reported dissatisfaction with blatantly inappropriate behavior. Nonetheless, HCWs involved in caring for women giving birth must be aware of women's rights to greater consideration of their expression of pain and of their voice in decisions. This study's results can be used to improve the consideration and appropriateness of HCWs' behaviors through the development of educational interventions and systems-level changes that support patient-centered care and include midwifery.

References

1. Tunçalp Ö., Were WM, MacLennan C, et al. Quality of care for pregnant women and newborns-the WHO vision. *BJOG Int J Obstet Gynaecol.* 2015;122(8):1045-1049. doi:10.1111/1471-0528.13451
2. Reis V, Deller B, Carr C, Smith J. *Respectful Maternity Care: Country Experiences.* USAID, MCHIP; 2012.
3. d'Oliveira AFPL, Diniz SG, Schraiber LB. Violence against women in health-care institutions: an emerging problem. *Lancet Lond Engl.* 2002;359(9318):1681-1685. doi:10.1016/S0140-6736(02)08592-6
4. Malterud K, Thesen J. When the helper humiliates the patient: a qualitative study about unintended intimidations. *Scand J Public Health.* 2008;36(1):92-98. doi:10.1177/1403494807085358
5. Ravaldi C, Skoko E, Battisti A, Cerizzo M, Vannacci A. Abuse and disrespect in childbirth assistance in Italy: A community-based survey. *Eur J Obstet Gynecol Reprod Biol.* 2018;224:208-209. doi:10.1016/j.ejogrb.2018.03.055
6. Larson E, Sharma J, Bohren MA, Tunçalp Ö. When the patient is the expert: measuring patient experience and satisfaction with care. *Bull World Health Organ.* 2019;97(8):563-569. doi:10.2471/BLT.18.225201
7. Rudigoz RC, Milliez J, Ville Y, Crepin G. *De la bientraitance en obstétrique. La réalité du fonctionnement des maternités.* Académie nationale de médecine; 2018:22.
8. Blondel B, Gonzalez L, Raynaud P. *Enquête Nationale Périnatale 2016. Les Naissances et Les Établissements, Situation et Évolution Depuis 2010 - Rapports - Ministère Des Solidarités et de La Santé.*; 2016.
9. R Core Team. *R: A Language and Environment for Statistical Computing.* R Foundation for Statistical Computing; 2020. <https://www.R-project.org/>
10. Dorai-Raj S. *Binom: Binomial Confidence Intervals For Several Parameterizations.*; 2014. Accessed March 6, 2020. <https://CRAN.R-project.org/package=binom>
11. Bates D, Mächler M, Bolker B, Walker S. Fitting Linear Mixed-Effects Models Using lme4. *J Stat Softw.* 2015;67(1):1-48. doi:10.18637/jss.v067.i01
12. Henderson CR. Best Linear Unbiased Estimation and Prediction under a Selection Model. *Biometrics.* 1975;31(2):423-447. doi:10.2307/2529430
13. Lukasse M, Schroll A-M, Karro H, et al. Prevalence of experienced abuse in healthcare and associated obstetric characteristics in six European countries. *Acta Obstet Gynecol Scand.* 2015;94(5):508-517. doi:10.1111/aogs.12593

14. Maimburg RD, Væth M, Dahlen H. Women's experience of childbirth – A five year follow-up of the randomised controlled trial “Ready for Child Trial.” *Women Birth*. 2016;29(5):450-454. doi:10.1016/j.wombi.2016.02.003
15. Waldenström U. Why do some women change their opinion about childbirth over time? *Birth Berkeley Calif*. 2004;31(2):102-107. doi:10.1111/j.0730-7659.2004.00287.x
16. Bohren MA, Mehrtash H, Fawole B, et al. How women are treated during facility-based childbirth in four countries: a cross-sectional study with labour observations and community-based surveys. *The Lancet*. 2019;0(0). doi:10.1016/S0140-6736(19)31992-0
17. Bohren MA, Vogel JP, Hunter EC, et al. The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review. *PLoS Med*. 2015;12(6):e1001847; discussion e1001847. doi:10.1371/journal.pmed.1001847
18. Bousquet D, Couraud G, Collet M. *Les actes sexistes durant le suivi gynécologique et obstétrical*. Haut Conseil à l'Égalité entre les femmes et les hommes; 2018:164.
19. Champion J-B, Collin C, Glénat P, Lesdos-Cauhapé C, Quénechdu V. *Bilan Démographique 2018*. Institut national de la statistique et des études économiques; 2019. <https://www.insee.fr/fr/statistiques/3692693>
20. Anim-Somuah M, Smyth RM, Cyna AM, Cuthbert A. Epidural versus non-epidural or no analgesia for pain management in labour. *Cochrane Database Syst Rev*. 2018;5:CD000331. doi:10.1002/14651858.CD000331.pub4
21. Yurashevich M, Carvalho B, Butwick AJ, Ando K, Flood PD. Determinants of women's dissatisfaction with anaesthesia care in labour and delivery. *Anaesthesia*. 2019;74(9):1112-1120. doi:10.1111/anae.14756
22. Bernitz S, Øian P, Sandvik L, Blix E. Evaluation of satisfaction with care in a midwifery unit and an obstetric unit: a randomized controlled trial of low-risk women. *BMC Pregnancy Childbirth*. 2016;16(1). doi:10.1186/s12884-016-0932-x
23. Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database Syst Rev*. 2016;4:CD004667. doi:10.1002/14651858.CD004667.pub5
24. Brown S, Lumley J. Satisfaction with care in labor and birth: a survey of 790 Australian women. *Birth Berkeley Calif*. 1994;21(1):4-13.
25. Molenaar J, Korstjens I, Hendrix M, Vries R de, Nieuwenhuijze M. Needs of parents and professionals to improve shared decision-making in interprofessional maternity care practice: A qualitative study. *Birth*. 2018;45(3):245-254. doi:10.1111/birt.12379
26. Vlemmix F, Warendorf JK, Rosman AN, et al. Decision aids to improve informed decision-making in pregnancy care: a systematic review. *BJOG Int J Obstet Gynaecol*. 2013;120(3):257-266. doi:10.1111/1471-0528.12060
27. *Éléments Pour Élaborer Une Aide à La Prise de Décision Partagée Entre Patient et Professionnel de Santé - Recommandation de Bonne Pratique*. Haute Autorité de Santé; 2018.

28. Roué J-M, Kuhn P, Lopez Maestro M, et al. Eight principles for patient-centred and family-centred care for newborns in the neonatal intensive care unit. *Arch Dis Child Fetal Neonatal Ed.* 2017;102(4):F364-F368. doi:10.1136/archdischild-2016-312180
29. Akca A, Corbacioglu Esmer A, Ozyurek ES, et al. The influence of the systematic birth preparation program on childbirth satisfaction. *Arch Gynecol Obstet.* 2017;295(5):1127-1133. doi:10.1007/s00404-017-4345-5
30. Chang Y-S, Coxon K, Portela AG, Furuta M, Bick D. Interventions to support effective communication between maternity care staff and women in labour: A mixed-methods systematic review. *Midwifery.* 2018;59:4-16. doi:10.1016/j.midw.2017.12.014

Table 1. Characteristics of mothers, current pregnancy, labor, childbirth and health care facilities

Characteristics	Respondents		
			n
Demographics			
Age in years, mean (SD)	31.07	(4.84)	627
Body mass index, median [IQR]	27.87	[6.06]	595
Country of birth, n (%)			624
France	548	(87.82)	
Other European countries	10	(1.60)	
Other	66	(10.58)	
At least 2 years of post-secondary education, n (%)	376	(61.04)	616
Medical history			
History of hospitalization for depression, n (%)	8	(1.28)	625
Current pregnancy			
Nulliparous, n (%)	274	(43.84)	625
Multiple pregnancy, n (%)	10	(1.60)	625
Prenatal birth classes, n (%)	325	(52.25)	622
Early prenatal interview, n (%)	207	(33.44)	619
Mother transferred before childbirth, n (%)	9	(1.44)	625
Preterm birth (≤ 37 week of gestation), n (%)	30	(4.80)	625
Reason for admission, n (%)			625
Spontaneous labor	431	(69.96)	
Prophylactic cesarean	66	(10.56)	
Labor induction	128	(20.48)	

Mode of childbirth, n (%)			625
Spontaneous vaginal	430	(68.80)	
Instrumental	77	(12.32)	
Cesarean before labor	66	(10.56)	
Cesarean during labor	52	(8.32)	
Perineal trauma, n (%)			624
None	270	(43.27)	
Perineal tear	290	(46.47)	
Episiotomy	64	(10.26)	
Analgesia, n (%)			625
Spinal or epidural	527	(84.32)	
Other	34	(5.44)	
None	64	(10.24)	
Birthweight, median [IQR]	3280.00	[590.00]	625
Neonatal resuscitation, n (%)	24	(3.84)	625
Outcomes for newborns, n (%)			624
Stay with their mother	608	(95.03)	
Hospitalization	30	(4.81)	
Death after 3 days of life	1	(0.16)	
Breast feeding, n (%)	475	(76.00)	625
Healthcare facility			
Maternity unit status, n (%)			627
Public university hospital	263	(41.95)	
Public, non-university	149	(23.76)	
Private hospital	215	(34.29)	

Level of neonatal care, n (%)		627
Without neonatal care unit	172	(27.43)
With neonatal care unit	341	(54.39)
With neonatal intensive care unit	114	(18.18)
Annual number of deliveries, n (%)		627
<1000	87	(13.88)
1000-1999	257	(40.99)
2000-2999	126	(20.10)
>3000	157	(25.04)

Table 2. Women's assessments of obstetric health care workers' behavior during childbirth: Answers on D
3 Satisfaction with Behaviour of the Mother's Caregivers - Satisfaction Questionnaire (BMC-SQ)

	Completely		Sufficiently		Insufficiently		Not at all	
Appropriateness of behavior, n (%)								
Appropriate attitude or behavior (n=625)	511	(81.76)	101	(16.16)	12	(1.92)	1	(0.16)
Respect for privacy (n=626)	500	(79.87)	118	(18.85)	6	(0.96)	2	(0.32)
Appropriate language (n=624)	496	(79.49)	115	(18.43)	12	(1.92)	1	(0.16)
Gentleness of care (n=623)	473	(75.92)	136	(21.83)	13	(2.09)	1	(0.16)
Considerateness of behavior, n (%)								
Clear and appropriate information (n=625)	478	(76.48)	121	(19.36)	22	(3.52)	4	(0.64)
Consideration of pain (n=623)	454	(72.87)	137	(21.99)	29	(4.64)	3	(0.48)
Participation in decision- making (n=625)	454	(72.64)	141	(22.56)	27	(4.32)	3	(0.48)