



## GOOD PRACTICES AND INTERVENTIONS IN DELIVERY IN PUBLIC REFERENCE MATERNITY HOSPITALS<sup>1</sup>

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### ABSTRACT

**Objective:** to analyze good practices and interventions in the care of parturient women in public maternity hospitals, a reference for habitual, intermediate and high-risk deliveries. **Method:** cross-sectional study nested in a cohort, outlined by the sequential explanatory mixed method, carried out in two stages: quantitative with 299 puerperal women and qualitative with 32. **Results:** among women at usual/intermediate risk, non-pharmacological methods for pain relief, companion, guidance and induction of labor and delivery and use of misoprostol were more frequent. In those at high risk, the lowest constancy is the auscultation of fetal heartbeats and information on vaginal touch, greater rupture of membranes artificially and restriction of water and food intake. Normal delivery was the main option for women at usual/intermediate risk, there was greater maintenance of the intact perineum. The lithotomic position predominated in both maternity hospitals, with little occurrence of delivery in bed, as well as the conditions of good vitality of the newborn. **Conclusion:** there was a small advance in good obstetric practices in the habitual/intermediate-risk maternity, while assistance in the high-risk maternity remains with little access to information about delivery, as well as routine induction.

**Keywords:** Pregnant women. Maternity. Women's Health. Grounded Theory. Evaluation of Health Programs and Projects.

### INTRODUCTION

Attention to delivery and birth is one of the pillars of support and development of a country. In Brazil, women's health, specifically delivery care, has received several incentives from public strategies and policies to improve and promote obstetric and neonatal care.

In 1984, the Women's Health Assistance Program (PAISM) led to the expansion of care for women beyond the puerperal pregnancy cycle, with emphasis on the quality of care in delivery and birth. The World Health Organization (WHO), in 1996, published a guide to evidence-based practice recommendations, structured into four categories: useful, harmful or ineffective practices, without sufficient evidence and inadequately used in the conduct

of labor and delivery<sup>(1)</sup>.

The Prenatal and Birth Humanization Program (PHPN) was established in 2000, which aims to use the valorization and humanization of delivery, with professional growth and female empowerment in the transition from delivery. In the same year, the fifth Millennium Development Goal (MDG) was to improve maternal health by reducing maternal mortality<sup>(1)</sup>.

However, all these measures were not enough to meet the demands of health services and several invasive, violent practices, without scientific support, continued to be carried out. The low quality of care provided led to the development and implementation of another health policy, the Stork Network<sup>(2)</sup>, created in 2011. It involved public hospitals to ensure

<sup>1</sup>Extracted from the thesis – Evaluation of Obstetric and Neonatal Care in public maternity hospitals: mixed method study, as a requirement for qualification, Postgraduate Program in Nursing, at the State University of Londrina (UEL).

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access, reception, quality in delivery and birth care, as well as continuity of care with reference and against reference of the users of the network's services.

To supply local regional needs, each State assumed responsibility for the implementation of the Stork Network and began to implement its own program in Paraná in 2012. The State Secretariat incorporated it into the maternal and child health care system, calling it the Rede Mãe Paranaense (RMP)<sup>(3)</sup>. The Mãe Paranaense Network was inspired by the Mãe Curitibana Program (1999), a positive experience that contributed to a significant reduction in maternal and child mortality indicators with prenatal and child care actions and linking the pregnant woman to the hospital for adequate delivery care<sup>(3)</sup>.

Risk stratification is an element seen by RMP as a guide for the organization of care at various levels (Primary, Secondary and Tertiary). The RMP brought a new classification, in addition to those already standardized by the Stork Network, Habitual Risk (HR) and High Risk (High R), Intermediate Risk (IR)<sup>(3)</sup>.

Habitual Risk pregnant women are women who do not present individual risk factors, sociodemographic factors, previous reproductive history, disease or aggravation. IR covers individual characteristics of pregnant women race, ethnicity and age (black or indigenous pregnant women) sociodemographic education (illiterate or with less than 3 years of study) and previous reproductive history (history of death in previous pregnancies abortion, stillbirth or death)<sup>(3)</sup>.

On the other hand, High R covers pregnant women who have risk factors, such as **pre-existing clinical conditions** (arterial hypertension, heart disease, drug dependence, morbid obesity, lung diseases under treatment, nephropathies under treatment and/or monitoring, diabetes, hyperthyroidism; uterine/vaginal malformation, epilepsy; hemopathies, infectious diseases, autoimmune diseases, previous uterine/vaginal surgery, hypothyroidism, neoplasms). **Clinical complications in current pregnancy** (infectious diseases, hypertensive syndrome, twin pregnancy, Rh isoimmunization, gestational diabetes mellitus, intrauterine growth

retardation, preterm labor, preterm amniorrhexis <37 weeks, placenta previa, uterine bleeding, fetal malformation, abrupt change in the BMI curve)<sup>(3)</sup>.

The stratification for IR should be recorded in the pregnant woman's portfolio and be linked to secondary and tertiary care reference centers, both for scheduled care and for complications that may occur during pregnancy until the moment of delivery. Also based on the principle of integrality, pregnant women and children stratified by IR and High R may be referred to the Paranaense Mother Center, an outpatient secondary care point that has a multidisciplinary team that provides care and complementary guidance to the actions developed by the Primary Health Care (PHC) teams<sup>(3)</sup>.

In 2017, the Ministry of Health (MH) released the National Guidelines for assistance to normal delivery, with the objective of guiding professional practice based on scientific support, in order to promote, protect and encourage normal delivery<sup>(1)</sup>. In 2018, the WHO published a new recommendation for a positive experience in delivery care, which reinforces the categories already published, namely: A (practices that are demonstrably useful and should be encouraged), B (practices that are clearly harmful or ineffective and should be eliminated), D (practices often used inappropriately) and brings scientific evidence to category C (practices without sufficient evidence to support a clear recommendation)<sup>(4)</sup>.

With this, the WHO broadens the view of delivery care again. For a humanized obstetric care, adequate and with scientific evidence, it is necessary that the woman has a positive experience about her delivery and the birth of her child.

The creation of health strategies, programs and policies are fundamental to improve maternal and child care. However, after their implementation, it is necessary to monitor them and evaluate them to verify their potential and weaknesses<sup>(5)</sup>.

Considering the implementation of RMP (2012), it is necessary to explore the advances and contributions of the network for maternal and child health in the state. In this context, recent studies have evaluated attention to prenatal care, pregnancy, birth, child monitoring,

risk and infant mortality, effectiveness of the program and perceptions of health professionals<sup>(6-7)</sup>.

Therefore, analyzing obstetric and neonatal care is important to understand the achievement of the goals stipulated by the program, as well as the present study expresses the reality of public maternity hospitals of reference to delivery in the 17<sup>th</sup> Regional Health. In addition, despite extensive discussion in the literature related to obstetric practices, few national studies are guided by the mixed method, which is a differential of the present research that allows the integration and expansion of the understanding of this phenomenon. This study aimed to analyze good practices and interventions in the care of parturient women in public maternity hospitals, a reference for habitual, intermediate and high-risk deliveries.

## METHODS

This is a descriptive cross-sectional study nested in a prospective cohort for a quantitative approach, guided by the STROBE tool and outlined by the sequential explanatory mixed method using the Grounded Theory. In this study design, the investigation was conducted in stages of the following approaches: first and priority (with higher weight attribution), quantitative (QUAN); and the second, of lower weight, qualitative (which). The sequential explanatory approach was interconnected by a connection or integration procedure in the present, in which the analysis of the data collected from the "QUAN" stage led/directed the collection of the data from the "which" stage<sup>(8)</sup>.

The study was developed in two maternity hospitals in the municipality of the northern region of the state of Paraná. A reference for high-risk pregnancy (M1) and another for habitual and intermediate risk (M2), for the municipality and other regions of the state. The M1, tertiary level, has 19 obstetric beds and Joint Accommodation (JA), a delivery room and a prepartum room with two beds, Neonatal/Pediatric Intensive Care Unit, Obstetric Emergency Room and General Surgical Center. The M2, secondary level, consists of three natural delivery rooms and two

cesarean rooms, eight prepartum beds, five for newborns and 34 postpartum beds in a JA system.

Both are certified by the Baby-Friendly Hospital Initiative (BFHI), serve exclusively by the Unified Health System (SUS) and are a reference for RMP. The data collection of the first stage (QUAN) took place from July to December 2017, the second stage (WHICH) from February to July 2018.

To obtain the study population, a sample calculation was performed in each maternity hospital, based on the number of deliveries (7,012) in 2016, corresponding to 23.3% M1 and 76.7% M2, resulting in 299 women. A margin of error of the survey of 5% was considered, confidence level of 95%, but because it is a monitoring study and losses may occur throughout the investigation period, an increase of 10% was defined as a safety margin to meet the sample number. Women who had given birth in the maternity hospitals under study, accepted to participate in the research and lived in the urban area of the municipality were included, and women with gestational age  $\leq 36$  weeks and 6 days were excluded.

For the first stage of the study (QUAN), the women were interviewed 24 hours after delivery, in a private room at the maternity hospital, using a standardized structured questionnaire. Data from the prenatal card, physical medical records of the puerperal woman and the newborn were also used. The data collection instrument of the interview and the hospital medical record contained 288 questions. The selected variables were: sociodemographic, obstetric and care practices for delivery, according to the recommendations of the World Health Organization (WHO) (category A - demonstrably useful practices that should be encouraged, category D - practices often used inappropriately).

The primary analysis of the first stage (QUAN) listed the fragility of delivery and birth care, with different points between habitual/intermediate and high risk care, reinforcing the need to continue with mixed method research, in order to explore the theme. To monitoring the sequential explanatory mixed study, after collecting data from this stage (QUAN), the categories of interest in the second

stage (which) were explored, representing the mixing of data by connection.

For the second stage of the study (which), the constructivist perspective of the Grounded Theory (GT) was adopted. Data collection was conducted through intensive interviews, carried out by a PhD student nurse, with a scholarship, at the woman's home, with a mean duration of one hour and thirty minutes. The speeches were recorded and later transcribed. The data collection and analysis process was terminated through theoretical data saturation, conducted according to the COREQ guide.

The first sample group consisted of 11 women from M1 (reference for high risk), the second sample group consisted of 21 women from M2 (reference for habitual/intermediate risk). To ensure anonymity, the women were identified in the text according to the order of the interview and according to maternity. Example: P1M1, participant 1, from maternity 1; P1M2, participant 1 from maternity 2.

After collecting data from the two stages, the final analysis was performed. At QUAN, data were analyzed using the Statistical Package for Social Sciences (SPSS®), version 20.0. To verify the difference in proportions between obstetric practices, Pearson's Chi-square test was used. The statistical significance adopted in all analyses was 5%, expressed as *p-value*. In which the data were organized and codified with the aid of NVIVO® software version 12, in two stages: initial and focused, in which the most significant initial codes were integrated, synthesized and organized into categories and subcategories.

From the qualitative analysis, the central category "The experience of the parturient in the Public Health System: challenges to be overcome" was identified, which integrates the categories (1) Health system and delivery care

and (2) Experience of delivery. According to the encouragement and recommendations of the current literature, the results are presented as a "joint display" in order to preserve the mixed approach of the study<sup>(8)</sup>. This research followed the rules of resolution 466/12 of the National Health Council and was approved by the Research Ethics Committee Involving Human Beings (REC/UEL) of the State University of Londrina CAAE: 67574517.1.1001.5231.

## RESULTS

The sociodemographic profile of the first stage (QUAN) indicated women with a predominance of age over 30 years and with higher income in M1, however, those of M2 had higher education.

Most of the parturients had a partner (M1 91% and M2 87.8%). Just over 60% in both maternities did not work, 34.8% of M1 and 39.5% of M2 were primiparous. The guided visit during prenatal care to the maternity hospital was not carried out by 87% in M1 and 73.1% in M2.

Regarding the phases of labor at the time of admission to the maternity 52.7% M1 were hospitalized in the active phase while 54.1% M2 were in the latent phase. In both maternities, there was a predominance of positive uterine dynamics 53.6% M1 and 80.4% M2 and, intact pouch, 78% M1 and 60.4% M2.

Among good practices (category A), the offer of relaxation bath, ball or active seat and massage for pain relief were more frequent in M2 women, as well as conditions related to the companion and labor and delivery guidelines. Intermittent auscultation of fetal heartbeats (FHB) was performed with less constancy in women of M1 and, it was also verified, greater restriction of water and food intake (Table 1).

**Table 1.** Demonstrably useful practices that should be encouraged. Londrina, Paraná, Brazil, 2017 (n=299)

Category A - demonstrably practices useful that should be encouraged	M1		M2		<i>p-value</i>
	n	(%)	n	(%)	
Relax Bath					
Yes	16	23.2	145	63.0	≤0.001
No	53	76.8	85	37.0	
Use of active ball or seat					
Yes	13	18.8	102	44.3	≤0.001

No	56	81.2	128	55.6	
Use of music therapy.					
Yes	2	3.0	10	5.0	0.591
No	67	97.0	220	95.0	
Pain Relief Massage					
Yes	12	17.4	10	4.3	≤0.001
No	57	82.6	220	95.7	
Pain Relief Medication <sup>†</sup>					
Yes	18	26.0	85	37.6	0.079
No	51	74.0	141	62.4	
FHB auscultation <sup>‡</sup> at delivery					
Yes	25	83.3	146	94.2	0.040
No	44	16.7	9	5.8	
Informed about the right to have a companion					
Yes	51	73.9	200	87.0	0.010
No	18	26.1	30	13.0	
Had a Companion in Prepartum					
Yes	56	81.2	211	91.8	0.006
No	13	18.8	19	8.2	
Received guidance on L <sup>§</sup> and Delivery					
Yes	32	46.4	150	65.2	0.005
No	37	56.6	80	34.8	
Moment you received the information <sup>†</sup>					
Prenatal	11	34.4	62	41.1	0.097
During the L	8	25.0	55	36.4	
Hospital	13	40.6	34	22.5	
Ingested liquids during L					
Yes	18	26.1	106	47.1	0.002
No	51	73.9	119	52.9	
Ingested food during L					
Yes	9	13.0	73	32.6	0.002
No	60	87.0	151	67.5	
Partogram					
Yes	66	95.7	208	92.0	0.306
No	3	4.3	18	8.0	

\*Pearson's chi-square, <sup>†</sup> Reported data, <sup>‡</sup> Fetal heartbeats, <sup>§</sup> Labor.

Regarding the practices often used inappropriately (category D), it was found that women from M1 had less information about vaginal touch and greater rupture of membranes

artificially, while the induction of labor and misoprostol use was greater in women from M2 (Table 2).

**Table 2.** Practices often used inappropriately in public maternity hospitals. Londrina, Paraná, Brazil, 2017 (n=299)

Category D - practices often used inappropriately	M1		M2		p-value*
	n	(%)	n	(%)	
Induction of L with oxytocin <sup>†</sup>					
Yes	19	27.5	157	69.8	≤0.001
No	50	72.5	68	30.2	
Delivery conduction with oxytocin <sup>†</sup>					
Yes	54	79.0	157	69.8	0.171
No	15	21.0	68	30.2	
Misoprostol Use <sup>†</sup>					
Yes	7	10.1	86	38.4	≤0.001
No	62	89.9	138	61.6	
Venous Access					
Yes	66	95.7	196	85.2	0.021
No	3	4.3	34	14.8	
ATB infusion <sup>‡</sup>					
Yes	42	60.9	119	51.7	0.182

No	27	39.1	111	48.3	
Has been informed about vaginal touch †					
Yes	54	81.8	215	96.0	≤0.001
No	12	28.2	9	4.0	
Vaginal Touch Assessment†					
Necessary/Sufficient for evaluation	58	90.6	214	96.8	0.036
Excessive for evaluation	6	9.4	7	3.2	
Consent to perform vaginal touching †					
Yes	56	90.8	215	95.6	0.137
No	6	14.4	10	4.4	
Multi-person tapping†					
Yes	19	29.2	67	29.8	0.932
No	46	70.8	158	70.2	
Membrane Break Type					
Spontaneous	22	31.9	123	53.5	≤0.001
Artificial	40	58.0	66	28.7	
The waters break at Hospitalization	7	10.1	41	17.8	

\*Pearson's chi-square, †Reported data, ‡Antibiotic

Normal delivery was the main option for M2 women and there was greater maintenance of the intact perineum. The lithotomy position predominated in both maternity wards, with little

occurrence of delivery in bed. Progression dystocia was the main justification for cesarean section in M2 women. The conditions of good vitality of the newborn prevailed in both maternity hospitals (Table 3).

**Table 3. Conditions of Delivery in public maternity hospitals. Londrina, Paraná, Brazil, 2017 (n=299)**

Delivery conditions	M1		M2		p value*
	n	(%)	n	(%)	
Delivery option					
Vaginal delivery	39	56.5	185	80.4	≤0.001
Cesarean section	26	37.7	45	19.6	
Type of delivery					
Spontaneous vaginal delivery	24	34.8	132	57.9	0.003
Instrumental vaginal delivery	1	1.5	4	1.8	
Cesarean section	44	63.8	93	40.4	
Perineal conditions†					
Perineum intact	12	48.0	152	66.1	0.005
Laceration	6	24.0	60	26.1	
Episiotomy	7	28.0	18	7.8	
Place of delivery					
Hospital bed/bed	6	8.7	20	8.8	0.002
Delivery room	18	26.1	108	47.8	
Surgical center	44	65.2	93	40.7	
Domicile/pre-partum/bath	—	—	6	2.7	
Position for delivery					
Lithotomic	25	36.2	131	57.0	0.002
Non-lithotomic dorsal	44	63.8	93	40.4	
Vertical/ four support/lateral/ Squatting	—	—	6	2.6	
Carried out partogram					
Yes	66	95.7	208	92.0	0.426
No	3	4.3	18	8.0	
Who delivered the baby					
Physician or resident	67	97.1	221	96.1	0.695
Nurse or resident	2	2.9	9	3.9	
Justification of cesarean section‡					
Fetal condition/aggravation	13	31.0	24	25.0	≤0.001
Progression dystocia	7	16.7	40	43.5	
Iterativity	1	2.4	18	19.6	
Maternal condition/grievance	21	50.0	11	12.0	
Apgar 1 <sup>st</sup> minute					
Severe suffering (3)	5	07.2	—	—	≤0.001

Moderate Difficulty (4-6)	4	5.8	8	3.5	
Adequate (7-10)	60	87.0	222	96.5	
Apgar 5 <sup>th</sup> minute					
Severe suffering (3)	–	–	–	–	0.067
Moderate Difficulty (4-6)	1	1.4	–	–	
Adequate (7-10)	68	98.0	230	100.0	

\*Pearson's chi-square, †Reported vaginal delivery data, ‡ Reported cesarean section data

From the analytical process, by GT, the central phenomenon or category “The experience of the parturient in the Public Health System: challenges to be overcome.” was identified, based on the integration of the study categories, namely: category (1) Health system and delivery care and, respective subcategories, (1) Fear of pain and hopelessness for delivery and (2) The power of culture and its influence on the delivery route, and category (2) Experience of delivery and subcategories: (1) Expectation for normal delivery and (2) Coping with cesarean delivery.

The categories describe how delivery care happens from the perspective of women and their relationship with the health service, through obstetric care. The category health system and

delivery care explains how delivery care happens in public maternity hospitals and how the routines and standardization of the service differ from care with a view to women. The experience of delivery category clarifies how remarkable this event is in the women's life, since the discovery of pregnancy and the experience of pregnancy and delivery, which can flow in a welcoming or stressful way.

The women expressed frustration about the experience of delivery, divergent from that expected for the moment, namely situations without reception or adequate information. Acceptance was one of the ways of overcoming. However, in positive experiences of the conduction of labor and delivery, such as reports of reception and respect for the woman, the user's satisfaction with delivery was identified.

**Box 1.** Testimonials from users related to the health system and delivery care, according to a significant statistical analysis

Quantitative Results	Analysis of qualitative data Category Health system and delivery care
<b>Category D practices often used inappropriately</b>  Labor Induction with Oxytocin Misoprostol use Venous Access Vaginal Touch	<p><i>Then he did his bureaucracy there [physician] and told me to leave to wait again in the hall [...]. I waited for a long time until the lady [nursing technician] called me after such a long time. It still got wet out there [of amniotic fluid] [...]. I went in, in pain [from labor] [...] and she still came to touch me. I had that huge belly, I couldn't even take my clothes off, and she touched me three times yet. After the evaluation I got waiting outside. (P1-M1)</i></p> <p><i>[...] I was very bad when I arrived at the maternity hospital, because a girl [resident] treated me very badly [...]. She put her finger there [vagina] with everything, to make the touch, and said it was to go back. Since it's already the fourth delivery, I knew I was in labor. And I wasn't screaming, I was walking normally. She said: you are not in labor, you are not in pain, you are normal. My husband insisted, someone else came and did the cardiotocography. Thank God it showed I was having contractions. (P13-M2)</i></p>
<b>Delivery Conditions</b>  Normal delivery Instrumental Episiotomy Position for non-lithotomic dorsal delivery	<p><i>[...] they tried normal delivery, with forceps, vacuum [...] I took a stitch underneath, I took a stitch in the cesarean section. (P12-M1)</i></p> <p><i>[...] he [baby] suffered. That's when they decided to use the forceps, even more suffering! I thought it would ease, no. In anesthesia, it was forty minutes for them to locate the point to pick up the anesthesia. First it was an anesthesiologist, he didn't find it. They called the head of anesthesia, he still stayed for about ten minutes, until he found it. They take the forceps off, the baby is born. (P10-M1)</i></p> <p><i>[...] I remember that I was exerting the wrong force [...] but the [internal] girl who was giving birth to me was being assisted by two other people. It was her first time, after all. But then, the physician who was standing, she said: you're pushing wrong, you're pushing up, I need you to push down. Then the girl also asked: push down, you're pushing up". And I, for me, was pushing right. (P17-M2).</i></p>

	<p>A resident tried to remove the cervical cerclage, but I don't even know if she had removed it before. My husband ended up helping her. My husband held the light and she said: well, I think I removed everything. We were so insecure. I spent the whole night in pain; the next morning they saw that I hadn't dilated at all. They went to look at the little dot that had been left and discovered that the cervix was still attached. That was the part that I suffered the most, they put one iron inside the other to try to open it. It was terrible pain. Even they couldn't see the dot, but they could feel it. The most desperate part was when they put their finger and scissors together to try to cut the dot by touch, feeling it. That's when she ended up cutting a little piece. Then the girl ran out of the room; my husband was scared and I tried to calm him down, wanting to know what was happening. Even doing all that, they couldn't remove it. When I got up from the stretcher, it was terrifying when I saw blood on the stretcher, blood on the floor, just to remove a little trickle, and in the end they still couldn't remove it and everything. This was done without anesthesia. So that was the most terrible part. I thought they needed to have a little more experience, because after they tried to remove it again, it was the head doctor himself, the specialist, I think. He arrived and removed it quickly, without anything, you know. (P4-M1)</p>
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**Box 2.** Testimonials from users related to the delivery experience, according to a significant statistical analysis

Quantitative Results	Analysis of qualitative data Category Delivery Experience
<p><b>Category A useful practices that should be encouraged</b></p> <p>Prepartum companion</p> <p>Labor and delivery</p>	<p>[...] they left me, they left me; it was my husband who stayed with me the whole time. And I was vomiting, defecating, screaming. Actually, I didn't even scream much. I called twice and she (the assistant) said that the baby's head was starting to appear, but it wasn't time yet. She turned her back and I screamed. The baby was being born. (P13-M2)</p> <p>It was terrible [...]. I was left alone, abandoned, because they didn't let anyone come in with me. And I was in a lot of pain, a lot of pain, a lot of pain [...]. I was alone, no one saw anything, they made me walk. (P10-M1).</p> <p>Because I thought I would have the baby in bed, but it was on the floor. Yes, it was on that [...] kind of "tatami", like, really small [...] Yes, it hurts a lot. (P2-M2)</p> <p>[...] I don't even want to talk about those labor pains, I was dying of pain, those women said that it wasn't pain, that it was just the beginning. My God, I was scared to death. (P18-M2)</p>
<p><b>Delivery Conditions</b></p> <p>Choice of normal delivery</p> <p>Cesarean section delivery</p>	<p>Look, it wasn't how I imagined it, because I imagined a natural delivery. I expected it that way, since I had never had a cesarean section, I was a little scared. So, I expected to feel the labor pains and have a baby. (P8-M1)</p> <p>[...] I wanted to have a normal delivery, I came to Brazil, but I wanted to have a normal delivery anyway [...] because here the highest rate is cesarean section. (P5-M2)</p> <p>I imagined it would be much worse. I thought I would have my son through natural delivery, but I couldn't have my son through natural delivery because I was afraid of the pain, of suffering a little, because there were some girls there who were suffering a lot. I was afraid of not having a natural delivery. (P20-M2)</p> <p>Desperate [...]. Because I didn't want [a cesarean]. I wanted a natural birth. (P21-M2)</p> <p>It was better than I had ever imagined [...]. It was quick, I was very well attended to, very respected. [...] I felt very happy to have the physical educator who was also a labor coach [...]. I really enjoyed it, I was very happy, very fulfilled with my birth. (P4-M2)</p> <p>But I also felt cared for, I thought it was really good. I really wanted to be able to meet the girl who delivered my baby, because she was as emotional as I was. It was really good, because when I was there, at the moment, giving birth, I looked at her and her face, her eyes were shining from delivering that baby (laughs). That, like, gave me a relief, you know?! Something like, wow, how cool, this is special for me. I looked at her, it was special for her too. So, actually, if I could describe the moment of my birth, for me it was beautiful, it was perfect. And my baby came out fine, everything was fine. There was no obstetric violence that people talk about so much. Everything was natural [...]. (P16-M2)</p>



## DISCUSSION

The differences found between the maternity hospitals in the study (habitual/intermediate risk and high risk) point to the specific needs of each service. However, aspects of delivery remain in need of intervention. Despite extensive discussion and scientific foundation regarding the conduct of labor and birth in recent years, assistance in health services still demonstrates weaknesses in the humanization and practice of care, being the predominant hegemonic model in Brazil<sup>(9)</sup>.

The profile of women in each maternity hospital is also due to the clinical conditions of pregnancy and delivery. Women seen in the maternity hospital as a reference for high risk represent a young adult age group, which may influence higher family income, but the phenomenon of more years of studies was identified in women who had given birth in the maternity hospital as a reference for habitual/intermediate risk. Sociodemographic aspects influence the obstetric scenario, life experience and biological maturity, as well as years of studies can be protective factors. A similar profile was identified in the Stork Network Maternity Delivery Care Assessment survey, which found a difference in the reception, care and access of pregnant and/or postpartum women in health care, according to age group<sup>(10)</sup>.

Over the years, delivery care has migrated from the family sphere to hospital care, so the health system has embraced responsibility for driving and power over delivery. The standard of care in Brazil exposes women to unnecessary interventions without scientific evidence, especially users of habitual obstetric risk<sup>(11)</sup>.

Among the practices evaluated in the study, it was observed that the conditions of hospitalization for delivery are not yet adequately implemented, although the Rede Mãe Paranaense program has been in force since 2012. Measures such as not visiting the maternity ward before delivery, hospitalization outside the labor period may increase the risk of induction of delivery. A study showed that the use of oxytocin (OR=3.04) increased the chances of complications after delivery with prevalence for postpartum hemorrhage in

nulliparous women. The frequent use of oxytocin was observed in the present study<sup>(12)</sup>.

The RMP guides the attachment of the pregnant woman to the hospital service of reference for delivery, according to the risk stratification, and this includes scheduling a guided visit to the linked hospital, with a companion, until the sixth month of pregnancy<sup>(3)</sup>. The pregnant woman's knowledge about the place of delivery prevents the woman's pilgrimage during labor and the visit strengthens the bond with the institution. In a research on regional inequalities in the access and quality of prenatal and delivery care in public health services in Brazil, the pilgrimage to delivery was associated with all neonatal outcomes such as prematurity, low birth weight, neonatal near miss and maternal near miss<sup>(13)</sup>.

Considering the "useful practices that should be encouraged", the conditions of labor and delivery diverged between the maternity hospitals of this study. Women at habitual/intermediate risk enjoyed more non-pharmacological pain relief measures such as Swiss or Bobath ball, shower and massage, as well as more information on the right to a companion and guidelines for delivery. Similar results were identified in a research that describes delivery care in maternity hospitals of the Stork Network, which point out that the presence of nurses promotes access to good obstetric care practices for labor and delivery in public and mixed services in recent years<sup>(14)</sup>.

Non-pharmacological pain relief measures are clearly useful practices that should be encouraged, in addition to providing comfort and empowerment to women and are associated with positive outcomes in care, such as greater satisfaction with delivery<sup>(15)</sup>.

Although advances in good practices in obstetric care have occurred, there is a persistence of inadequate actions, especially in women treated in high-risk maternity hospitals, such as restricting water and food intake, less monitoring of fetal vitality and less information about vaginal touching.

Dietary restriction or fasting are practices not recommended by the WHO, both for women at usual risk and for those at high risk. On the contrary, this body recommends that during labor women have access to liquid supplies.

Fetal monitoring through intermittent auscultation is another recommended practice for adequate conduction of labor and delivery, being an essential action in intrapartum care<sup>(16)</sup>.

According to WHO recommendations, the digital vaginal examination should be performed with an interval of four hours in women at habitual risk to assess the evolution of labor<sup>(4)</sup>. Touch must be performed properly and humanely, as it is invasive and intimate, making the woman vulnerable to the professional, adding pain at the time of contraction, which can be extremely uncomfortable. Despite the preponderance of the analysis of vaginal touch as "necessary/sufficient for evaluation", the statements of these women illustrate reports of discomfort, pain and repetition of the procedure.

The domain of the health service in the face of delivery exposes women to interventionist practices such as episiotomy, lithotomy, synthetic oxytocin, amniotomy, prolonged fasting, among others, actions that are repudiated by scientific evidence<sup>(17)</sup>.

The public maternity hospital, as a public service, has its doors open to teaching and research and includes the training of undergraduate and graduate courses in the health area. Therefore, practice for the teaching-learning process is necessary. However, it must occur responsibly in the provision of care to the users. The reports obtained through the qualitative stage elucidated the insecurity and abandonment in care, allowing a diagnosis of the fragility of teaching in delivery care in Brazil, even when there is direct supervision of the teachers or health professionals.

Despite programs and political incentives in the public sphere to improve obstetric and neonatal care, social, economic and cultural resistance are factors that prevent progress in care<sup>(18)</sup>. The users' misinformation, the students' inexperience and the professionals' omission culminate in disastrous assistance, with experience of pain and suffering. The perception of women about the professional's inability during care is clear; the reports of inappropriate procedures that do not match humanized and safe care reinforce the need for team commitment, qualified care and prudence in care.

Normal birth was the most desired route by

women, identified in the analysis and reinforced by the users' statements; the desire to give birth naturally is still persistent, despite facing a strong cultural precept and the disruption of the health system. Preparation for delivery begins in prenatal care, offered by primary care and complemented by reference services, in the case of risky pregnancies, with the sharing of clinical information. Stimulating and guiding the parturition process, as well as linking the pregnant woman to the place of delivery, are fundamental strategies for the advancement of obstetric care<sup>(19)</sup>.

The association of suffering with normal delivery is influenced by society, whose sentencing of delivery in the public system pejoratively denotes vaginal delivery<sup>(20)</sup>. This is evidenced in statements of refusals of users to normal delivery, attributed to pain and affliction and mentions to cesarean delivery as encouragement in a moment of anguish. It can be justified by the interventionist delivery, assisted by a physician, in a lithotomic position, which has resistance to natural delivery in an upright position and use of resources that incorporate good obstetric practices.

The lithotomic position in delivery benefits only the professional, as it acts against gravity, is uncomfortable for the woman and reduces the intensity of contractions, interfering with the progression of delivery. Giving birth in a non-vertical position is a practice rooted in Brazilian culture, subsidized by institutional protocols, behaviors and professional preferences<sup>(21-22)</sup>. Incentives to the vertical position during delivery as well as movement during labor are positive practices that should be encouraged<sup>(23)</sup>.

Among the positive aspects of this study, there is the maintenance of the intact perineum and the restriction of the use of routine episiotomy in the habitual/intermediate risk maternity, however episiotomy is still present in a high number in the high-risk maternity. The routine or liberal use of episiotomy is not recommended for women who progress to spontaneous vaginal delivery<sup>(4)</sup>.

However, the most frequent justification for cesarean delivery is the progression dystocia in women at habitual/intermediate risk, although this procedure has a cost of almost 40% higher than that of vaginal delivery for SUS. Brazil has

the second highest cesarean section rate in the world, 56.3% of births, and the Midwest region concentrated the highest rate of cesarean deliveries (62.3%)<sup>(24)</sup>.

Undergoing an anesthetic-surgical procedure, such as a cesarean section, requires emotional preparation of the pregnant woman/parturient, as it goes through the clinical conditions of pregnancy, frustration of an active labor that is interrupted, the confrontation of a cold and isolated operating room, with the presence of the companion only at the time of the child's birth, sometimes the procedure is performed without a necessary indication or adequate information for the pregnant woman.<sup>(25)</sup> A study on hospital characteristics in the performance of elective cesarean section in the Southeast Region of Brazil found a prevalence of 41.3% and an 80% higher chance of elective cesarean section even in care financed by SUS<sup>(26)</sup>.

Cesarean section is a condition that has cultural reinforcement, with low information on the intensity of surgical delivery, which has an unfavorable impact on maternal and newborn recovery. Neonatal near miss morbidity in Brazilian maternity hospitals was influenced by the variables of the organization of health services as an outcome of cesarean section delivery, as well as maternal characteristics<sup>(27)</sup>. In addition, the literature has shown that infants born by high route have a higher rate of neonatal near miss morbidity than those born by vaginal delivery.

It is noteworthy that even in pregnancies with a risk diagnosis, cesarean section is not an absolute indication, being possible the evolution of spontaneous labor or its induction, although it is evident the increase in the number of cesarean sections throughout the country, including high-risk pregnancies<sup>(28)</sup>.

Considering the woman's role in the choice of delivery route, little information on the subject is confirmed, even when exposed by the user doubts about delivery. Abandonment at the time of delivery, explained in the women's speech, is opposed to the policies of humanization of delivery and birth. In addition to lack of privacy, excess of professionals in the delivery room, and disrespect are situations endured by these women. However, the experience of delivery superimposed by pain

and suffering is overcome with the birth of a healthy child<sup>(29)</sup>.

On the other hand, positive reports of delivery care have also occurred and demonstrate that it is possible, within a public maternity hospital, to experience a delivery with quality, safety and humanization. Words such as respect, happiness, emotion, care for the protagonism of the users and the apex of the delivery were expressed, the involvement of the professional at the time of delivery makes the experience unique with user satisfaction and brings credibility to normal delivery.

The user's satisfaction with delivery reflects the quality of care and the way in which care directed to delivery and birth is offered. Attitudes of listening, welcoming, protagonism and companionship during the period of labor and delivery influence the judgment about the care received, reaffirming that satisfaction is an association of collaborative and participatory measures between the user and the service<sup>(30)</sup>.

Positive aspects of satisfaction with delivery include maternal attachment, prolonged breastfeeding, and adaptation after delivery. On the contrary, dissatisfaction increases the risk of negative health outcomes, and events such as puerperal depression and fear of giving birth again may occur, increasing the preference for cesarean section in future pregnancies<sup>(30)</sup>.

The practices addressed in this study express that, even after guidelines and policies to encourage humanized and safe delivery, obsolete practices still persist in health services. Considering category "A" practices (useful that should be encouraged), we observed a small advance for maternity that meets the habitual/intermediate risk delivery, while in high-risk maternity this practice is distant from women. In category "D" (often used inappropriately) we found little access to information about delivery, as well as routine induction. Users express moments of insecurity and dehumanization sustained by a technocratic model. These facts overlap with a few statements that express humanized care and a positive experience with delivery. There were no reports on the knowledge or if they had access to the Delivery Plan and if it was fulfilled partially or in its entirety.

This study presents as its main limitation the

local reality, since only one Regional Health Unit is evaluated. In addition, caution should be exercised in generalizing and interpreting the data to other realities.

### Contributions to the Area

When investigating prepartum and delivery care beyond the numbers and considering the users' perspective, it refers to the innovation that can be produced by nursing for science, as well as directing and instituting actions that contemplate the recommended good obstetric practices.

The present study presents the reality of two reference maternity hospitals in the care of pregnant women with habitual, intermediate and high-risk risk stratification, and demonstrates what is done during the hospitalization of the pregnant woman for delivery. However, it is necessary to look at the various perspectives that can be developed to improve the service, such as techniques based on quality scientific evidence, in the legislation and guidelines of the Ministry

of Health and the World Health Organization. It should also be noted that the qualification of professional practice must be carried out, being an item of paramount importance for safe care

### CONCLUSION

The current situation of delivery care in the maternity hospitals of the study indicates that even after recommendations of good practices by the WHO and actions of programs such as RMP unnecessary and interventionist practices continue to occur in care. Thus, it is essential that practices with scientific evidence are incorporated and exercised by institutions and their professionals, as well as the need for greater insertion and performance of obstetric nursing, as an enhancer of humanization and qualified care. The consolidation and strengthening of these measures affirms a safe and healthy outcome of delivery and birth, providing the users with the protagonism and positive meaning of delivery.

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## BOAS PRÁTICAS E INTERVENÇÕES NO PARTO EM MATERNIDADES PÚBLICAS DE REFERÊNCIA

### RESUMO

**Objetivo:** analisar as boas práticas e intervenções na assistência à parturiente em maternidades públicas referência para parto de risco habitual, intermediário e alto risco. **Método:** estudo transversal aninhado a uma coorte, delineado pelo método misto explanatório sequencial, realizado em duas etapas: quantitativa com 299 puérperas e qualitativa com 32. **Resultados:** entre mulheres de risco habitual/intermediário, foi mais frequente: métodos não farmacológicos para alívio da dor, acompanhante, orientações e indução de trabalho de parto e parto e uso de misoprostol. Naquelas de alto risco, a menor constância a ausculta dos batimentos cardíacos e informação sobre o toque vaginal, maior rotura de membranas artificialmente e restrição de ingesta hídrica e alimentos. O parto normal foi a principal opção para as mulheres de risco habitual/intermediário e houve maior manutenção do períneo íntegro. A posição litotômica predominou em ambas maternidades, com pouca ocorrência de parto na cama/leito, assim como as condições de boa vitalidade do recém-nascido. **Conclusão:** observou-se um pequeno avanço das boas práticas obstétricas na maternidade de risco habitual/intermediário, enquanto a assistência na maternidade de alto risco permanece com pouco acesso a informações sobre o parto, assim como indução de modo rotineiro.

**Palavras-chave:** Gestantes. Maternidade. Saúde da Mulher. Teoria Fundamentada nos dados. Avaliação de Programas e Projetos de Saúde.

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## BUENAS PRÁCTICAS E INTERVENCIONES EN EL PARTO EN MATERNIDADES PÚBLICAS DE REFERENCIA

### RESUMEN

**Objetivo:** analizar las buenas prácticas e intervenciones en la asistencia a la parturienta en maternidades públicas de referencia para parto de riesgo bajo, moderado y alto. **Método:** estudio transversal anidado a una cohorte, delineado por el método mixto secuencial explicativo, realizado en dos etapas: cuantitativa con 299 puérperas y cualitativa con 32. **Resultados:** entre las mujeres de riesgo bajo/moderado, fue más frecuente: métodos no farmacológicos para el alivio del dolor, acompañante, orientación e inducción al parto y uso de misoprostol. En las de alto riesgo, menor constancia a auscultación cardíaca fetal e información sobre el tacto vaginal, mayor rotura de membranas artificialmente y restricción de ingesta hídrica y alimentaria. El parto normal

fue la principal opción para las mujeres de riesgo bajo/moderado y hubo mayor mantenimiento del perineo íntegro. La posición de litotomía predominó en ambas maternidades, con escasa incidencia de parto en cama/camilla, así como las condiciones de buena vitalidad del recién nacido. **Conclusión:** se observó un pequeño avance de las buenas prácticas obstétricas en la maternidad de riesgo bajo/moderado, mientras que la asistencia en la maternidad de alto riesgo permanece con poco acceso a información sobre el parto, así como inducción de modo rutinario.

**Palabras clave:** Gestantes. Maternidades. Salud de la Mujer. Teoría Fundamentada en los datos. Evaluación de Programas y Proyectos de Salud.

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**Submitted:** 02/06/2023

**Accepted:** 24/10/2024

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#### Financial support

Notice from the Ministry of Science, Technology and Innovation (MCTI) and National Council for Scientific and Technological Development (CNPq) - universal call MCTI/CNPq nº 01/2016.