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Original Article

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Obstetric interventions in vaginal delivery in a public maternity hospital in São Luís, Maranhão

Intervenções obstétricas no parto vaginal em maternidade pública de São Luís, Maranhão

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Resumo

Introdução: O parto vaginal é um parto fisiológico e espontâneo. Porém, atualmente a assistência ao parto normal, vem sendo utilizado rotineiramente métodos invasivos, que aceleram esse processo natural da mulher. **Objetivo:** Avaliar a utilização de intervenções no parto com seus fatores relacionados. **Materiais e métodos:** É um estudo transversal e quantitativo realizado com parturientes de uma maternidade pública de São Luís. A coleta de dados foi realizada através da entrevista e avaliação dos prontuários. O questionário foi estruturado em blocos referente às características sociodemográficas, obstétricas e do parto. As análises estatísticas foram pelo programa STATA®, utilizado o teste de Chi-quadrado de Pearson. **Resultados:** Segundo dados do prontuário 14,75% das puérperas foi realizado amniotomia e 37,70% ocitocina. Houve uma diferença significativa entre puérperas analfabeta/ fundamental incompleta e a amniotomia; as primíparas foram mais submetidas a episiotomia; a ocitocina foi maior em puérperas sem companheiro. As perguntas sobre analgesia e condições do períneo estavam maior parte sem registro no prontuário, 74,86% e 77,60%, respectivamente. **Conclusão:** Portanto, deve ser realizado uma revisão criteriosa da equipe multiprofissional, principalmente médica, sobre as intervenções julgadas necessárias no parto e uma preocupação com o preenchimento completo desses prontuários, para evitar subnotificações dessas intervenções realizadas.

Palavras-chave: parto normal; episiotomia; ocitocina; amniotomia.

Abstract

Introduction: Vaginal delivery is a physiological and spontaneous delivery. However, currently, care for normal childbirth has been routinely used invasive methods, which accelerate this natural process of women. **Objective:** To evaluate the use of childbirth interventions and their related factors. **Materials and methods:** This is a cross-sectional and quantitative study carried out with parturients at a public maternity hospital in São Luís. Data collection was carried out through interviews and assessment of medical records. The questionnaire was structured in blocks referring to sociodemographic, obstetric and childbirth characteristics. Statistical analyzes were performed using the STATA® program, using Pearson's Chi-square test. **Results:** According to the medical records, 14.75% of the puerperal women underwent amniotomy and 37.70% oxytocin. There was a significant difference between illiterate/incomplete primary mothers and amniotomy; primiparous women were more often submitted to episiotomy; oxytocin was higher in postpartum women without a partner. The questions about analgesia and conditions of the perineum were mostly unrecorded in the medical records, 74.86% and 77.60%, respectively. **Conclusion:** Therefore, a careful review should be carried out by the multidisciplinary team, mainly medical, on the interventions deemed necessary in childbirth and a concern with the complete filling of these records, to avoid underreporting of these interventions performed.

Keywords: normal delivery; episiotomy; oxytocin; amniotomy.)

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Introduction

The World Health Organization (WHO) defined vaginal delivery as spontaneous in onset, in which the infant is born in the cephalic position between 37 and 42 completed weeks of pregnancy. We therefore consider vaginal delivery as a natural and physiological process[1].

The current model of normal childbirth care is destabilized. This is due to the transformation from a model in which physiology is the main challenge to birth care to a model focused on the regular use of technologies to control labor[2]. Unnecessary interventions disrupt the physiological process of childbirth and can trigger a cascade of negative events. In this process, the increase in the level of complexity of the procedure is associated with the increase in risk[3].

Led by the humanized childbirth movement and based on scientific evidence, the WHO published, in 1996, a practical guide for vaginal birth care, recommending respect for the physiological process and progression of each childbirth[4, 5]. Recommendations based on the same guidelines were published by the Ministry of Health (MH) in Brazil, advocating a valid indication for interfering in the natural childbirth process, which should happen with the least possible medical interventions[6].

The thoughts of the Ministry of Health diverges with the mechanistic thinking of current medical obstetrics, causing a considerable increase in the number of cesarean deliveries, less participation of women in choosing the type of delivery, and excessive medical interventions during vaginal delivery[7]. The medical interventions include analgesia and anesthesia during labor; use of exogenous oxytocin infusion to replace women' natural hormones; episiotomy or perineum incision; forced removal of the placenta; among other invasive techniques that transfer the control of childbirth to the responsible medical professional, and is currently seen as a hospital and surgical event[8].

The inappropriate use of technologies in childbirth care has been a source of dissatisfaction for women, with adverse maternal and perinatal outcomes[9], in addition to adding greater costs to care[3]. The recommended rate of episiotomy, for example, is around 10% of the deliveries[10].

In Latin America, episiotomy has been performed as a routine intervention in the primiparae and the multiparae with previous episiotomy[11]. In Brazil, episiotomy was used in 56% of childbirths in 2011 and 2012[7]. Oxytocin is another intervention widely used in modern obstetric practice to stimulate and accelerate childbirth, by increasing uterine activity and intensifying contractions[12].

The degree of obstetric intervention in normal births is closely related to the health care model and imposes interference and displacement of women from their leading role in childbirth. The use of invasive methods during vaginal delivery is related to the socioeconomic level of the parturient as well, with higher rates of epidural analgesia, oxytocin infusion, amniotomy, episiotomy, forceps and cesarean among patients treated in the private health system than in the public health system[6].

Rescuing the central role of women during childbirth is of major importance, thus, the aim of this article is to investigate obstetric interventions during vaginal delivery and their related factors in a public maternity hospital in São Luís, Maranhão.

Materials and methods

Sample and study design

This is a field research with a quantitative cross-sectional design. The study used a convenience sample population of parturients who had normal

delivery and were hospitalized in the public maternity hospital at the time of data collection.

The study was carried out according to the principles of Resolution 510/2016 of the National Health Council (CNS) and was approved by the Ethics Committee with opinion number 3,321,282.

Inclusion and Exclusion Criteria

Women who gave birth by vaginal delivery recently, aged between 18 and 40 years, and agreed to participate in the research by signing the Free and Informed Consent Form were included in the research. Parturients who gave birth to twins (2) and those with inconsistent data (1) were excluded.

Research design

Data were collected by trained nursing students in two ways: face-to-face interview with the puerperal woman and medical record evaluation. A block-structured questionnaire referring to sociodemographic, obstetric and labor characteristics consisting of 31 questions was applied.

Procedures

In the first phase, the mothers were asked about their sociodemographic characteristics, including age, education, race/color, marital status and family income, and about obstetric characteristics such as number of prenatal consultations, parity, whether they were informed about medicalization during childbirth, which obstetric interventions were performed at delivery, the characteristics of delivery and perinatal conditions.

In the second phase, data were extracted from the parturient's medical record, in order to have access to data regarding gestational age, cervical dilatation, uterine dynamics, membrane status, amniotic fluid, associated pathology, membrane rupture, oxytocin infusion, analgesia at delivery, perineal conditions, intrapartum meconium, and Apgar score. The extraction of data from the medical records was duly authorized by the institution where the research took place.

In the third phase, the questionnaire data were stored in the database and entered into Microsoft Office 2010® Excel spreadsheets. Statistical analyses were performed using the software STATA® 14.0. Categorical variables were presented as absolute (n) and relative (%) frequencies. The Pearson's Chi-square test was used to assess the difference between the independent variables and the outcome variables. Variables with $p<0.05$ were considered significant.

Results

The sample consisted of 186 parturients that responded the questionnaire. Three puerperal women were excluded by the exclusion criteria, and the final sample comprised 183 puerperal women. Puerperal women were aged between 24 and 32 years (45.36%) and between 18 and 23 years (37.70%); 72.68% self-declared brown; 56.83% reported having completed high school; 79.78% live with their partners; and 55.19% have a family income of 1 to 3 minimum wages (Table 1).

Table 1. Sociodemographic characteristics of parturients at a public maternity hospital in São Luís, Maranhão, Brazil, 2019..

Variable	N[1]	%
Age		
18 to 23 years	69	37.70
24 to 32 years	83	45.36
Greater than 32 years	31	16.94
Color/race		
Brown	133	72.68
Black	17	9.29
White	17	9.29
Yellow and others	16	8.74
Education		
Illiterate / Incomplete Elementary	25	13.66
Complete Elementary	44	24.04
Complete High School	104	56.83
Complete Superior	10	5.46
Marital status		
No partner	37	20.22
With partner	146	79.78
Income (minimum wages)		
<1	81	44.26
1 to 3	101	55.19
4 to 6	1	0.55
TOTAL	183	100

[1] N= 183 puerperal women

Most of the puerperal women were admitted to the maternity ward between 37 and 41 weeks of pregnancy (40.98%). The status of the amniotic membrane of the parturients was not documented in 73.22% of the medical records, however, among the records found, 14.21% had an intact placenta. The amniotic fluid in 50.27% of the women was clear and 51.37% showed no pathologies associated with pregnancy. A high rate of data in the medical records were not documented such as gestational age (19.13%), membrane status (73.22%), amniotic fluid (45.36%), and associated pathology (24.59%). (Table 2).

Table 2. Obstetric conditions of pregnant women at the time of admission to a public maternity hospital in São Luís, Maranhão, Brazil, 2019..

Variable	N[1]	%
Gestacional Age		
< 37 weeks	71	38.80
37 to 41 weeks	75	40.98
> 42 weeks	2	1.09
No record	35	19.13
Membrane status		
Intact	26	14.21
Ruptured	23	12.57
No record	134	73.22
Amniotic fluid		
Clear	92	50.27
Meconial	1	0.55
Hematic	2	1.09
Other	5	2.73
No recod	83	45.36
Associated pathology		
Yes	44	24.04
No	94	51.37
No record	45	24.59
TOTAL	183	100

[1] N= 183 puerperal women

During the interview, mothers were asked about prenatal care and whether they had received information about medicalization during childbirth, 85.25% reported that they had not. According to the puerperal women, 56.83% received an oxytocin infusion, 18.03% were treated with analgesia, and 10.38% underwent episiotomy. All women reported delivery performed without using instruments/forceps (Table 3).

Table 3. Medical interventions used during labor in puerperal women at a public maternity hospital in São Luís, Maranhão, Brazil, 2019.

Parturient	N¹	%
Oxytocin infusion		
Yes	104	56.83
No	78	42.62
Don´t know	1	0.55
Analgesia in childbirth		
Yes	33	18.03
No	149	81.42
Don´t know	1	0.55
Episiotomy		
Yes	19	10.38
No	163	89.07
Don´t know	1	0.55
Medical record	N¹	%
Membrane rupture		
Spontaneous	83	45.36
Artificial	27	14.75
No Record	73	39.89
Oxytocin infusion		
Yes	69	37.70
No	33	18.03
No record	81	44.26
Analgesia in childbirth		
Yes	2	1.09
No	44	24.04
No record	137	74.86
Perineal condition		
Intact	28	15.30
1st degree laceration	10	5.46

2nd degree laceration	2	1.09
3rd degree laceration	1	0.55
No record	142	77.60
TOTAL	183	100

[1] N= 183 puerperal women.

The data collected from the medical records showed that the rupture of the amniotic sac was spontaneous in 45.36% of the puerperal women, artificial in 14.75%, and unrecorded in 39.89%. Oxytocin was used in 37.70% of the puerperal women, and 44.26% of the cases were not recorded. Analgesia during delivery and perineal conditions were not documented in most medical records, 74.86% and 77.60%, respectively. The records of the perineal status showed 1st degree lacerations in 5.46% of the puerperal women, 2nd degree lacerations in 1.09%, 3rd degree lacerations in 0.55%, and 15.30 % had an intact perineum (Table 3).

A significant difference was found between episiotomy reported by the puerperal woman and the number of deliveries (p=0.008), in which the primiparae were more likely to undergo episiotomy compared with the multiparae. There was also a difference related to oxytocin and marital status (p=0.047), in which puerperal women without a partner were more likely to have oxytocin infusion during labor compared to those who had a partner at the time (Table 4).

Table 4. Distribution of puerperal women undergoing interventions in vaginal delivery, São Luís, Maranhão, Brazil, 2019.

	OXYTOCIN			EPISIOTOMY			MEMBRANE RUPTURE		
Variable	Yes (%)	No (%)	p value	Yes (%)	No (%)	p value	Yes (%)	No (%)	p value
NB weight			0.476			0.400			0.076
< 2500g	71.88	28.13		7.46	92.54		15.79	84.21	
2500g to 3999g	64.71	35.29		12.73	87.27		28.17	71.83	
>=4000g	100.00	0.00		0.00	100.00		100.00	0.00	
Age (years)			0.165			0.975			0.761
<= 23	64.10	35.90		10.14	89.86		21.43	78.57	
24 to 32 years	75.51	24.49		10.98	89.02		25.00	75.00	
>=33 years	50.00	50.00		9.68	90.32		30.00	70.00	
Education			0.256			0.976			0.016*
Illiterate / basic education Incomplete	73.33	26.67		12.00	88.00		52.94	47.06	

Complete primary/middle	80.77	19.23		11.63	88.37		22.73	77.27	
Complete high school	59.26	40.74		9.62	90.38		20.31	79.69	
Complete higher education	71.43	28.57		10.00	90.00		0.00	100.00	
Gestacional age			0.285			0.875			0.115
< 37 weeks	72.97	27.03		9.86	90.14		18.18	81.82	
37 to 41 weeks	68.63	31.37		10.81	89.19		27.45	72.55	
> 42 weeks	0.00	100.00		0.00	100.00		100.00	0.00	
Nu of deliveries			0.627			0.008			0.059
Primipara	65.31	34.69		16.48	83.52		16.67	83.33	
Multipara	69.81	30.19		4.40	95.60		32.14	67.86	
Preivous Cesarean			0.379			0.064			0.866
Yes	66.30	33.70		9.09	90.91		24.75	75.25	
No	80.00	20.00		23.53	76.47		22.22	77.78	
Marital Status			0.047			0.934			0.461
Without partner	85.71	14.29		10.81	89.19		30.43	69.57	
With partner	62.96	37.04		10.34	89.66		22.99	77.01	

Pearson's Chi-square test.

Discussion

In this study, the sociodemographic data revealed that the predominant level of education of the puerperal women was completed high school and only 5.46% had completed higher education. Pereira et al.[13], in Rio de Janeiro, found that women studied from eight to more years, corresponding to high school, which is similar to the result of this research.

The education level of the participants reflects on a greater awareness of the sexual and reproductive rights, of maternal care during childbirth and information about health facilities[14] and, consequently, about the methods used in labor.

Regarding marital status, it was found that most women (79.78%) had a partner. The importance of the father's presence is evident, especially in childbirth, in which the mother needs the emotional support of the partner, for a humanized process[13,14]. The support of the companion to the parturient was associated with positive maternal outcomes such as reduction in the rates of caesarean birth, reduced oxytocin use, labor duration, analgesia, and increased maternal satisfaction with the birth experience[3, 9,15] .

The family income of most parturients ranged from one to three minimum wages. According to IBGE, in São Luís in 2018, 33.8% of the total population were employed in formal jobs and had an average monthly salary of 3.2 salaries[16], close to that found in the present study. Among the women interviewed, 72.68% self-declared brown (72.68%), that is, due to a great historical ethnic and racial miscegenation in the country[17].

In the sample, there was a high rate of pregnant women admitted with gestational age below 37 weeks (38.80%), since this is a highly complex maternity hospital for high-risk pregnancies, thus increasing the frequency of these preterm births. A birthing center in Sapopema, in the capital of São Paulo, has a birth care protocol for monitoring women from 37 weeks of pregnancy, with clinical and gestational risk assessment[18].

Correia investigated perinatal outcomes in pregnancy in early adolescents and found that 20% of births were preterm, this not related with the age group of the mothers, but they presented risk factors such as gestational hypertension and low maternal education[19].

The WHO classifies the good practices in normal childbirth into four categories: A: useful practices that should be encouraged; B: practices that are clearly harmful or ineffective and that must be eliminated; C: practices for which there is insufficient evidence to support a clear recommendation and which should be used with caution until further research clarifies the issue; and D: practices frequently used incorrectly[10]. The routine use of oxytocin is classified by the WHO as practices without sufficient evidence to support its recommendation and that it should be used with caution (CATEGORY C)[30].

The questionnaire responses (56.83%) and the medical records (37.70%) show that oxytocin was the most used intervention. The oxytocin administration is performed as decided by the medical team and is generally used in women with risk factors for hemorrhage, large fetuses and prolonged labor, among others[21].

Studies show that oxytocin leads to a progression in labor when women have risk factors for bleeding[24]. However, in addition to correcting the evolution of childbirth, it has high risks of causing harm to the mother and the fetus[2].

The use of synthetic oxytocin ranged from 27%, in a study in Sweden, to 100% during the third stage of labor in a study carried out in Brazil[22, 23]. In a hospital in Rio de Janeiro, resident professionals reported that the administration of oxytocin occurred in 42% of normal deliveries, requiring a careful examination to know whether or not the application is necessary[23].

The data collected demonstrate that oxytocin infusion was prevalent in women without a partner. The use of oxytocin is closely related to a woman's marital status. The presence of the partner at the time of delivery relieves tension, reduces anxiety, and provides the future mother with security and strength, as well as contributing to the reduction of interventions such as oxytocin infusion, thus promoting a more humanized delivery process[14].

Amniotomy, another intervention used, is the artificial rupture of the ovular membrane and according to the WHO is a practice that should be used with caution[30]. A significant relationship was found with amniotomy in parturient women and low level of education (illiterate/incomplete elementary school).

Use of analgesia was infrequent, which made it impossible to compare data with other studies. The recommendation for the use of this intervention is 30% of births, when all non-pharmacological methods to relieve pain have been tried[2]. In the medical records, the rate of not recording this information is high (74.86%), indicating a deficit in filling out this data.

Episiotomy is recommended by the WHO in 10 to 15% of births[20]. Many women report dyspareunia, pain, changes in

the perineal scar after episiorrhaphy, excessive introital narrowing, edema, dehiscence, infection[31]. In addition to these complications, episiotomy is a violation of women's sexual and reproductive rights because it is performed on a healthy body without having an established benefit and, in some cases, without the woman's consent and without prior local anesthesia[15].

The puerperal women reported that 10.38% underwent episiotomy. Thus, this result reported by the mothers on the episiotomy rate is within the parameters recommended by the WHO.

In this article, we report high rates of medical records without documenting the conditions of the perineum (77.60%), preventing the identification of the actual status of episiotomy in postpartum women.

Primiparea underwent more episiotomy than multiparea. This result is similar to findings of Serra et al.[29], which points out that primiparea are ten times more likely to have an episiotomy than multiparae. In addition, the use of episiotomy in primiparea considerably increases the risk of laceration and subsequent episiotomy[29]. In the study carried out by Inagaki, in Aracaju, primiparity conferred 2.5 greater chances of primiparea go through episiotomy[20].

An integrative review carried out to investigate the prevention of perineal lacerations and routine episiotomy found that primiparea without a history of previous vaginal delivery and, therefore, with little perineal distensibility, are three times more likely to undergo the procedure[14].

For a long time, episiotomy was thought to protect the pelvic floor and was done routinely in women who gave birth for the first time, among other situations. Currently, it is known that there is not enough scientific evidence that can support the benefits of such an indication routinely, in the short or long term, and that episiotomy, when performed selectively, reduces the occurrence of perineal trauma.

In general, obstetric intervention in childbirth was performed in smaller proportions. Analgesia and amniotomy had the lowest rates, while oxytocin was the most frequently used intervention in normal deliveries.

None of the medical records evaluated had an indication or justification for performing obstetric interventions in childbirth. Most records have spaces for notes, but they were not used or received very abbreviated and encrypted notes, whose reading is often hampered by the incomprehensibility with acronyms and abbreviations and/or writing. In this way, we identified that the more directive the form, the better filled it is, which provides more information recorded about pregnant women. The more open, the fewer the notes[27].

From the admission to the maternity hospital until hospital discharge, the medical record is filled out by professionals from different sectors and there are several factors like high patient demand, lack of professional on duty, the rapid evolution of the labor, and complications in childbirth that contribute to the inadequate filling of the form.

This study found that all data referring to medical interventions had low registration, indicating that the process needs optimization. Praxedes et al.[28] carried out a research in a maternity hospital in Rio Grande do Norte and found a higher rate of filling out the medical record at admission, with a decrease during hospitalization until discharge.

It is evident that there were limitations corroborating the fact that diverse information was poorly filled in the medical records, interfering with the result of the interventions in childbirth. In addition, during the interview, the puerperal women were physically and mentally tired, focused on postpartum care, worried about breastfeeding, among other things, increasing the possibility of wrong answers or misunderstanding of the questions asked.

Conclusion

The importance of the puerperal women´s knowledge level about the birth processes such as intercurrences and acceptable procedures for an active participation in decisions related to labor is evidenced. The parturient's right to have a companion during the prenatal and immediate postnatal period, by Federal Law No. 11,108, attenuates excessive obstetric interventions and improves the evolution of childbirth.

Therefore, a careful review by the multiprofessional team, especially the medical team, should be carried out on the interventions deemed necessary in childbirth as well the concern with the complete filling of the records, to avoid underreporting of the interventions performed.

References

1. Ministério da Saúde. Diretrizes Nacionais de assistência ao parto normal. Brasília MS. 2017; (1): 1-53.
2. Sousa AMM, Souza KV, Rezende EM, Martins EF, Campos D, Lansky S. Práticas na assistência ao parto em maternidades com inserção de enfermeiras obstétricas, em Belo Horizonte, Minas Gerais. Esc Anna Nery. 2016; 20 (2): 324-31.
3. Medeiros, MQ. Intervenções obstétricas durante o trabalho de parto e parto em mulheres de risco habitual de uma Maternidade de referência do Ceará. 2016. 90 f. Dissertação (Mestrado em Saúde Pública) - Faculdade de Medicina, Universidade Federal do Ceará, Fortaleza, 2016.
4. Cederfeldt J, Carlsson J, Begley C, Berg M. Quality of intra-partum care at a university hospital in Nepal: A prospective cross-sectional survey. Sex & Reprod Healthcare. 2016; 7:52-7.
5. Escuriet R, Pueyo MJ, Botella MP, Espada X, Salgado I, Gómez A, Biescas H, Espiga I, White J, Fernandez R,Fusté J, Órtun V. Cross-sectional study comparing public and private hospitals in Catalonia: Is the practice of routine episiotomy changing? BMC health services research. 2015; 15 (1):95.
6. Nucci M, Nakano AR, Teixeira LA. Ocitocina sintética e a aceleração do parto: reflexões sobre a síntese e o início do uso da ocitocina em obstetrícia no Brasil. Hist Cienc Saude-Manguinhos. 2018; 25 (4): 979-98.
7. Leal MDC, Pereira APE, Domingues RMSM, Filha MMT, Dias MAB, Pereira MN, Gama SGN. Intervenções obstétricas durante o trabalho de parto e parto em mulheres brasileiras de risco habitual. Cad Saúde Pública. 2014; 30: 17-32.
8. Monteschio LVC, Sgobero JCGS, Oliveira RR, Serafim D, Freitas MTA. Prevalência da medicalização do trabalho de parto e parto na rede pública de saúde/ Prevalence of medicalization of labor and delivery in the publich ealth network. Ciência, Cuidado e Saúde. 2016; 15(4): 591-98.
9. Schneck CA, Riesco MLG, Bonadio IC, Diniz CSG, Oliveira SMJVD. Resultados maternos e neonatais em centro de parto normal peri-hospitalar e hospital. Rev Saúde Públ. 2012; 46:77-86.
10. Organización Mundial de la Salud. Recomendaciones de la OMS para la conducción del trabajo de parto. Organización Mundial de la Salud.2015. [Acessado 20 Julho 2022]. Disponível em: https://apps.who.int/iris/handle/10665/179906.
11. Malheiros PA, Alves VH, Rangel TSA, Vargens OMC. Parto e nascimento: saberes e práticas humanizadas. Texto Contexto Enferm. 2012; 21(2):329-37.

12. Lopezosa PH, Maestre MH, Borrego MAR. Labor stimulation with oxytocin: effects on obstetrical and neonatal outcomes. Rev Lat Am Enfermagem. 2016; 24. [Acessado 20 Julho 2021], e2744. Disponível em: <https://doi.org/10.1590/1518-8345.0765.2744>. Epub 25 Jul 2016. ISSN 1518-8345. https://doi.org/10.1590/1518-8345.0765.2744.
13. Pereira ALF, Lima TRL, Schroeter MS, Gouveia MSF, Nascimento SD. Resultados maternos e neonatais da assistência em casa de parto no município do Rio de Janeiro. Esc Anna Nery [Internet] 2013 Jan-Mar [cited 2018 Apr 25]; 17-23.
14. Souza NA, Queiroz LLC, Silva RCCQ, Ribeiro TSF, Fonseca MDSS. Perfil epidemiológico das gestantes atendidas na consulta de pré-natal de uma unidade básica de saúde em São Luís-MA. Rev Cienc Saúde. 2013; 15(1): 28-38.
15. Lopes GDC, Gonçalves ADC, Gouveia HG, Armellini CJ. Atenção ao parto e nascimento em hospital universitário: comparação de práticas desenvolvidas após Rede Cegonha. Rev Lat Am enfermagem. 2019; 27: e3139.
16. IBGE - Instituto Brasileiro de Geografia e Estatística. Salário médio mensal dos trabalhadores formais: Cadastro Central de Empresas. Rio de Janeiro.2018. [Acesso em 20 de jul de 2022]. Disponível em: https://cidades.ibge.gov.br/brasil/ma/sao-luis/panorama.
17. Feitoza SR. Fatores maternos, fetais e assistenciais associados à ocorrência de lacerações perineais e episiotomias. Dissertação (Mestrado Profissional em Saúde da Mulher e da Criança) - Faculdade de Medicina, Universidade Federal do Ceará-Fortaleza; 2018.
18. Silva FMBD, Paixão TCRD, Oliveira SMJVD, Leite JS, Riesco MLG, Osava RH. Assistência em um centro de parto segundo as recomendações da Organização Mundial da Saúde. Rev Esc Enferm USP 2013; 47(5):1031-38.
19. Correia AS. Resultados perinatais na gravidez em adolescentes precoces no município de São Luís-MA. Dissertação [Pós-graduação em Saúde Materno-Infantil] - Universidade Federal do Maranhão; 2012.
20. Inagaki ADDM, Silva BDA, Andrade T, Ribeiro CJN, Abud ACF. Frequência e fatores associados à realização de episiotomia em uma maternidade estadual de alto risco. Rev enferm UFPE. 2017; 11(9): 3523-32.
21. Melo AA, Diaz CMG, Zamberlan C, Antunes B, Marques CT, Silveira GB, Kruel CS. Perfil de atenção ao parto em maternidade de risco habitual: tipo de parto e intervenções. Research Society and Development. 2020; 9(2): e176921905- e176921905.
22. Nystedt A, Hildingsson I. Diverse definitions of prolonged labour and its consequences with sometimes subsequent inappropriate treatment. BMC pregnancy and childbirth. 2014; 14(1): 233.
23. Almeida BF, Ribeiro JF, Araújo KRDS, Lavôr TBDSL. Processo de assistência ao parto normal em uma maternidade pública do estado do Piauí, 2015. Rev Enferm Atenção Saúde [online]. Ago/Dez 2016; 5(2):45-56.
24. SantosAHLD, Nicácio MC, Pereira, ALDF, Oliveira TCDMD, Progianti JM. Práticas de assistência ao parto normal: formação na modalidade de residência. Rev enferm UFPE on line. 2017; 11(1): 1-9.
25. Nankali A, Keshavarzi F, Fakheri T, Zare S, Rezaei, M, Daeichin S. Effect of intraumbilical vein oxytocin injection on third stage of labor. Taiwan J Obstet Gynecol. 2013; 52(1): 57-60.
26. Mesquita AMO, Deslandes SF. A construção dos prontuários como expressão da prática dos profissionais de saúde. Saude e Soc. 2010; 19(3): 664-73.

27. Praxedes ADO, Arrais L, Araújo MAAD, Silva EMMD, Gama ZADS, Freitas, MRD. Avaliação da adesão à Lista de Verificação de Segurança no Parto em uma maternidade pública no Nordeste do Brasil. Cad Saúde Pública 2017; 33(10): e00034516.

28. Pitangui ACR, Carvalho NHMG, Siqueira CV, Castro JFL, Araújo RCD. Ocorrência e fatores associados à prática de episiotomia. Pernambuco. Rev Enferm UFPE online. 2014; 8(2): 257-63.
29. Serra LS. Avaliação da assistência ao parto normal em uma maternidade escola de São Luís-MA. Trabalho de Conclusão de Curso [Graduação em Enfermagem] – Universidade Federal do Maranhão; 2018.
30. Prado DS, Mendes RB, Gurgel RQ, Barreto IDDC, Bezerra FD, Cipolotti R, Gurgel RQ. Practices and obstetric interventions in women from a state in the Northeast of Brazil. Rev Ass Med Bras. 2017; 63(12): 1039-48.
31. Rocha BDD, Zamberlan C. Prevenção de lacerações perineais e episiotomia: evidências para a prática clínica. Rev enferm UFPE on line. 2018; 12(2): 489-98.
32. Morato, MGVA. Prática de episiotomia durante a assistência ao parto: tendência e fatores de risco em uma coorte retrospectiva de cinco anos. 2019. 65f. Dissertação (Mestrado em Ciências da Saúde) - Universidade Federal de Uberlândia, Uberlândia, 2019. Disponível em: http://dx.doi.org/10.14393/ufu.di.2019.2356.

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