

POSTPARTUM OBSTETRIC ASSISTANCE TO PRIMIPAROUS WOMEN ACCORDING TO FUNDING

Assistência obstétrica no pós-parto às primíparas conforme o financiamento

Asistencia obstétrica posparto a primíparas según la financiación

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ABSTRACT

Objective: to evaluate the care provided to primiparous puerperal women during the immediate postpartum period in a maternity ward of the Zona da Mata of Minas Gerais, according to the source of funding. **Method:** descriptive, analytical cross-sectional study conducted in a maternity ward. The associations between the exposures (sociodemographic and obstetric care variables) and the outcome (funding source) studied were evaluated using Pearson's chi-square test and Fisher's test. **Results:** there is a difference in the sociodemographic profile of women according to the type of childbirth funding. Age, race, schooling, marital status and socioeconomic status show that there is a more vulnerable population. The evaluation of the uterus fundus and lochia were more prevalent in women funded by the public system. **Conclusion:** obstetric care during the fourth period after delivery was satisfactory and of quality. The puerperal women funded by the public system were less likely to have complications and death.

DESCRIPTORS: Obstetrics; Postpartum period; Maternal and child health services; Comprehensive health care; Health care funding.

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RESUMO

Objetivo: avaliar a assistência prestada em puérperas primíparas durante o período pós-parto imediato em uma maternidade da Zona da Mata mineira, de acordo com a fonte de financiamento. **Método:** estudo transversal descritivo, analítico, realizado em uma maternidade. As associações entre as exposições (variáveis sociodemográficas e de assistência obstétrica) e o desfecho (fonte de financiamento) estudados foram avaliadas por meio do teste qui-quadrado de Pearson e teste de Fisher. **Resultados:** existe diferença no perfil sociodemográfico das mulheres de acordo com o tipo de financiamento do parto. Idade, raça, escolaridade, estado civil e padrão socioeconômico demonstram que existe uma população mais vulnerável. A avaliação do fundo de útero e de lóquios foram mais prevalentes nas mulheres financiadas pelo sistema público. **Conclusão:** constatou-se que a assistência obstétrica durante o quarto período após o parto foi satisfatória e de qualidade. As puérperas financiadas pelo sistema público apresentaram menores chances de ter complicações e morte.

DESCRIPTORIOS: Obstetrícia; Período pós-parto; Serviços de saúde Materno-infantil; Assistência integral à saúde; Financiamento da assistência à saúde.

RESUMEN

Objetivo: evaluar la asistencia prestada a puérperas primíparas durante el período de posparto inmediato en maternidad de la Zona de la Mata Minera, según fuente de financiación. **Método:** estudio descriptivo, analítico y transversal realizado en una maternidad. Asociaciones entre las exposiciones (variables sociodemográficas y de atención obstétrica) y el resultado (fuente de financiación) estudiadas se evaluaron mediante prueba de ji-cuadrado de Pearson y prueba de Fisher. **Resultados:** hay una diferencia en el perfil sociodemográfico de mujeres según el tipo de financiación del parto. La edad, raza, educación, estado civil y patrón socioeconómico muestran que hay una población más vulnerable. La evaluación del fondo uterino y de los loquios era más frecuente en mujeres financiadas por el sistema público. **Conclusión:** la atención obstétrica durante el cuarto período posterior al parto se consideró satisfactoria y de buena calidad. Mujeres embarazadas financiadas con fondos públicos tenían menos probabilidades de sufrir complicaciones y muerte.

DESCRIPTORIOS: Obstetrícia; Período posparto; Servicios de salud maternoinfantil; Atención sanitaria integral; Fondos para el cuidado de la salud.

INTRODUCTION

Maternal mortality is all deaths that occur during pregnancy or up to 42 days after delivery, and may be of direct obstetric causes, related to complications of pregnancy, delivery or the puerperium, or indirect, resulting from diseases that already existed before pregnancy or developed during pregnancy.¹ The main causes of maternal deaths in Brazil between 2000 and 2009 were: maternal diseases that complicated pregnancy, delivery, and the puerperium (17.10%); eclampsia (11.88%); gestational hypertension, with significant proteinuria (6.22%); postpartum hemorrhage (5.86%); puerperal infection (5.18%); and placental abruption (4.28%). Many deaths could be avoided if there were no failures in the assistance given to women during the gravidic puerperal period.¹

The maternal mortality profile is influenced by the high levels of cesarean sections and childbirth interventions that occur in Brazilian obstetric services. It reflects a process of medicalization of women's bodies that has been occurring over the years, bringing risks to the health of the mother and the newborn.² A study has shown that women with low income and little education have less access to information and less knowledge about health, which is one of the factors responsible for maternal mortality, and that mortality among mixed-race and single women is higher.¹

Several factors contribute to maternal mortality; however, reproductive planning, monitoring during prenatal, delivery, and postpartum periods, early diagnosis, and quality treatment can reduce these deaths.¹ For decades, the Ministry of Health has been adopting measures to improve this assistance and reduce maternal morbidity and mortality. Currently, the Stork Network is trying to provide a safe delivery and birth.³

Therefore, it is concluded that quality and appropriate obstetric care during labor is essential. This care varies according to the stage of labor, which are: first, second, third, and fourth stages. The fourth stage is characterized by the reestablishment of the woman's body.⁴ It is divided into immediate (1st to 10th day), late (10th to 45th day), and remote (after 45 days). It begins after the complete expulsion of the placenta and fetal membranes, and the first hours after birth are the period when complications can occur, especially postpartum hemorrhage, which has serious consequences for the puerperal woman.⁵

Therefore, during the integral assistance to the woman in the postpartum period, health professionals must meet the due needs of the mother and the newborn, offering minimum care, complete evaluation, and careful attention. They must provide qualified communication, availability, frequent monitoring, and the welcoming posture.⁶ It is important that uterine contraction, vaginal bleeding, urinary elimination, and vital signs of the puerperal woman are continuously evaluated.⁷⁻⁸

It is noted that there is a low production of research involving assistance in the postpartum period, especially in the first hours after the birth of the baby. It should also be emphasized that there is no published research on this assistance, the processes and procedures used in the care of the immediate postpartum period in the municipality of Zona da Mata of Minas Gerais evaluated in this study. Thus, the objective was to analyze the assistance provided to primiparous puerperae during the immediate postpartum period in a maternity hospital in the Zona da Mata region of Minas Gerais, according to the source of funding.

METHOD

This is a cross-sectional descriptive and analytical study, of quantitative nature, conducted in a maternity hospital located in the Zona da Mata region of Minas Gerais.

The hospital where the study was conducted is a civil association of private law, of welfare nature, non-profit, and whose purpose is to provide medical and hospital care.

It is a macroregional reference in care for high-risk pregnant women and is the seat for teaching and learning for students in higher and technical courses at a federal university.

The population assessed in this study consisted of 220 primiparous puerperae from the city and region, admitted to the maternity ward of one of its hospitals. For the calculation, the 739 primiparous women in the year 2014 were considered, with the frequency of cesarean section 71% and of normal deliveries 29%. The data were obtained from the birth registration book of the hospital's maternity ward, from a larger study. The following inclusion criteria were considered: primiparous puerperae, of vaginal delivery or cesarean section, with a live fetus at the beginning of labor. Exclusion criteria were puerperae who had absolute indication for cesarean section: transverse baby, center-total or partial placenta previa, placental abruption, placenta accreta, genital herpes with active lesions in the third trimester, and twin pregnancy, if the first twin was transverse.

Data collection occurred from November 2015 to October 2016. The primary data were obtained through the application of a semi-structured questionnaire to the puerperae, and the secondary data were obtained through the careful analysis of the medical records, including also the prenatal card. It is worth remembering that before starting the research the Informed Consent Term was read and explained. For puerperae under 18 years of age, both the ICF and the Informed Consent Form were prepared.

In this research, the variables analyzed were: age (14 to 19 years, > 20 years), race (white, non-white), education (1 to 8 years, 9 to 11 years, 12 years or more), marital status (with partner, without partner), income (lowest, highest), route of delivery (normal, cesarean), after delivery where the newborn (NB) went (nursery, NICU, to your room), RN's place of stay (in the room with you, intermediate unit, NICU), presence of a companion (yes, no), initiation of breastfeeding (in the delivery room, in the room, did not start), measurement of vital signs (yes, no), evaluation of the uterine fundus (yes, no), assessment of bleeding (yes, no), satisfaction with the type of delivery (yes, no) and choice of the same route of delivery in the next pregnancy (yes, no).

Descriptive data analysis was performed using relative and absolute frequencies. The associations between the studied exposures (socio-demographic and obstetric care variables) and outcome (source of financing) were assessed using Pearson's chi-square test and Fisher's test, when necessary; variables with $p < 0.05$ were considered significant. Data were coded, categorized and entered into the Epi Info 7.0 program. All analyses were performed using Stata software, version 13.1.

Since this was research involving human beings, the research project was forwarded to the Ethics Committee of the hospital where the study was carried out and, subsequently, to the Ethics Committee of the federal university, opinion CEP no 1,147,446. The study procedures were developed in order to protect the privacy of individuals, ensuring anonymous and voluntary participation.

RESULTS

It was found that there is a difference in the sociodemographic profile of women according to the type of financing of the delivery (public or private), in relation to age group, race, education, individual and family income, and route of final delivery, with a significant association. Adolescent women, in their majority, were attended in the public network. In contrast, 40% of the adult women were attended by private funding. Regarding race, approximately half of the white women were attended by the public network and the rest by the private network. As for the non-white women, almost three-fourths were attended by the Unified Health System (SUS). More than 80% of the women with schooling between 1 and 8 years and between 9 and 11 years were attended in the public network, while those with higher schooling levels (12 years or more) represented 75.4% in private funding. The lowest individual and family income exceeded 80% in the public network. The normal delivery route was almost 90% in the SUS (Table 1).

Table 1 - Sociodemographic characteristics of puerperae in a maternity hospital in Zona da Mata, Minas Gerais, according to the funding source, Viçosa, MG, Brazil, 2019

Variables	Public Financing		Private Financing		p
	n	%	n	%	
Age					
Teenagers (14 to 19 years old)	41	95,3	2	4,7	<0,001*
Adults (> 20 years)	106	59,9	71	40,1	
Race					
White	35	52,2	32	47,8	0,004*
No White	108	72,5	41	27,5	
Education					
1 to 8 years	38	86,4	6	13,6	<0,001*
9 to 11 years	94	81,7	21	18,3	
12 years or more	15	24,6	46	75,4	
Marital Status					
With partner	100	63,3	58	36,7	0,076*
Without a companion	47	75,8	15	24,2	
Individual income					
Lower income	90	81,1	21	18,9	<0,001*
Higher income	57	52,3	52	47,7	
Family income					
Lower income	90	82,6	19	17,4	<0,001*
Higher income	55	50,5	54	49,5	
Delivery route					
Normal Delivery	61	87,1	9	12,9	<0,001*
Cesarean Delivery	86	57,3	64	42,7	

*Chi-square test: $p < 0.05$.

Regarding the assistance offered to women in the fourth period of labor, most of the newborns went to a room or joint housing, the women had the presence of a companion, started breastfeeding in the room, and were monitored for blood pressure, cardiac, respiratory, fundus and lochia measurements. It is noteworthy that the fundus and lochia assessments were more prevalent in women funded by the public system and with a significant association. Most were satisfied with the route of delivery and would choose the same route in the next pregnancy (Table 2)

Table 2 - Prevalence of practices in obstetric care to puerperae in a maternity hospital in Zona da Mata, Minas Gerais, according to the funding source. Viçosa, MG, Brazil, 2019

Variables	Public Financing		Private Financing		p
	n	%	n	%	
After the birth where the NB went					
Nursery	11	84,6	2	15,4	
NICU	8	80,0	2	20,0	0,193*
For your room	116	63,7	66	36,3	
RN on-call location					
In the room with you	123	64,1	69	35,9	
In the intermediate unit	2	66,7	1	33,3	0,065*
NICU	10	100	0	0	
Presence of the companion					
Yes	134	65,7	70	34,3	0,47*
No	1	100	0	0	
Breastfeeding begins					
In the delivery room	22	81,5	5	18,5	0,046*
In the bedroom	102	61,8	63	38,2	
Did not start	11	84,6	2	15,4	
Blood pressure measurement					
No	18	78,3	5	21,7	0,218*
Yes	129	65,5	68	34,5	
Temperature measurement					
No	19	70,4	8	29,6	0,676*
Yes	128	66,3	65	33,7	
Heart rate measurement					
No	19	79,2	5	20,8	0,173*
Yes	128	65,3	68	34,7	
Measurement of respiratory rate					
No	52	61,9	32	38,1	0,224*
Yes	95	69,9	41	30,1	
Assessment of the uterine fundus					
Yes	103	76,3	32	23,7	<0,001*
No	31	47,0	35	53,0	

Variables	Public Financing		Private Financing		p
	n	%	n	%	
Evaluation of the loci					
Yes	107	74,8	36	25,2	<0,001*
No	27	45,0	33	55,0	
Satisfaction with the type of deliver					
Yes	135	65,9	70	34,1	0,355*
No	8	80,0	2	20,0	
Choosing the same route of delivery for the next pregnancy					
Yes	74	62,2	45	37,8	0,07*
No	44	75,9	14	24,1	

*Chi-square test: p < 0.05.

DISCUSSION

The quality of obstetric care is a determinant of maternal, fetal, and neonatal morbidity and mortality. It is influenced by several factors, including sociodemographic characteristics. Factors such as age, race, education, marital status, and socioeconomic status show that there is a more vulnerable population.

A study carried out in the United States showed that African-American women have a mortality ratio four times higher than American women. Similarly, research in Brazil has shown that the maternal mortality ratio is higher among black women. This fact can be explained by the greater association of hypertensive diseases, the difficulty of access to health services and the low quality of care.⁹

In Maringá, Paraná, women with SUS-funded delivery presented characteristics considered less favorable, as most pregnant women in this group were adolescents, of low income, low education, of black and brownish ethnicity, and had less than seven prenatal consultations.^{1,10} These data are in line with those found in this research: adolescents, non-white, of low education and low income, who were predominantly assisted by public funding.

Moreover, when comparing the assistance provided in three SUS hospitals in Minas Gerais, a percentage of teenage pregnancy of 24.7% was found. As for the level of education of the clientele, most women attended school from 8 to 11 years in the three services. In two of them, women with stable marital status were more attended¹¹, corroborating the results of this study.

Among the maternal deaths investigated from 2005 to 2015, the age range varied from 20 to 41 years. Of the reported cases, black and brown women accounted for 79.41% and single women 72%. Regarding the education of the women who died, 22% had elementary school education and 29.41% completed high school. The main mode of delivery was cesarean section, with 33 records, followed by 21 vaginal deliveries, 9 abortions and 22 undeclared.¹

In another study, it was evident that there is a difference between complications during pregnancy and the source of financing, since 32.2% (299) of puerperal women in private financing reported having had at least one hospitalization, while the highest proportion was for those who gave birth through the SUS (57.2%).¹⁰

Despite all the advances achieved with the implementation of the SUS, Brazil still faces difficulties in ensuring comprehensive care and timely access of the population to certain types of care. There are still challenges in public financing, such as the shortage of doctors and their poor distribution, the latter referring to Brazilian geographic areas and among levels of care. This situation contributes to the maintenance of failures in health care.¹²

In a study carried out in mixed hospitals (public and private financing) in the states of São Paulo and Rio Grande do Sul, it was found that of 536 hospitals, 362 recorded at least one death between hospitalizations financed by SUS and by health insurance plan. In only 57 hospitals the standardized hospital mortality ratio was lower for SUS patients than for plan patients, while in the remaining hospitals (305) the ratio for SUS patients was higher than for plan patients. It is possible to verify that within the same physical structures there are differences in the care provided to SUS and non-SUS patients, which may indicate that, even though they are physically available in hospitals, some resources are not within the reach of patients whose source of payment is the SUS.¹³ Therefore, these hospitals maintain the unfavorable result for patients from the public system when compared with patients from the private sector, which is in line with the data found in this study.

The public and private systems reveal differences regarding the factors associated with the delivery route. The high occurrence of cesarean sections in the private model (93.8%) is mainly determined by the woman's desire for this delivery route early in pregnancy and previous cesarean sections. Among women assisted by the SUS, there were more factors associated, including family income per capita higher than one minimum wage, previous cesarean delivery, overweight or pre-pregnancy obesity and desire for cesarean delivery early in pregnancy.¹⁴

It is known that the type of delivery is also one of the factors contributing to maternal death.^{9,14} Cesarean section exposes women to high risk of complications such as bleeding after delivery and infection, which can result in their death. Despite this, the cesarean section rate in Brazil is approximately 56%, with considerable variation between public and private institutions.¹⁵ A study pointed out that the predominance of normal delivery is among women assisted by public funding, bringing to them a lower chance of death related to complications in childbirth and postpartum. Thus, an intervention in supplementary health is proposed in order to increase normal birth rates.

The rooming-in is a way for the healthy baby to remain 24 hours by the mother's side, from birth to discharge. It is an environment in which the interaction between mother and child should be encouraged, so that it occurs naturally,

and it also enables parents to receive guidance on child care, stimulates breastfeeding and favors the bond between family members.¹⁶ In this study, it was found that most newborns went to the mother's room after birth, so they could have contact with the mother and her family earlier.

In Araçatuba, state of São Paulo, most women admitted to a maternity hospital reported having received great care in the rooming-in and information from nurses, such as care with the umbilical stump, breastfeeding and the correct grip, resulting in benefits to the baby's health.¹⁶

However, it was found that, although most of the newborns evaluated in this study stayed in the room with the mother, 100% of the babies referred to NICU were from mothers funded by the public system. The same occurred in a study that assessed the quality of care at hospital births in the public network of the city of Recife, as more than 30% of newborns required hospital care, and it should be emphasized that most of them were in ICU in state (50.4%) and philanthropic (42.9%) institutions.¹⁷

It should also be emphasized that, besides diseases, socioeconomic conditions are directly or indirectly responsible for poor intrauterine development of the fetus, low birth weight, and duration of pregnancy. When unfavorable, premature birth is often associated with intrauterine growth restriction and low birth weight.¹⁸

Therefore, the importance of quality prenatal care and the development of good practices for women living in precarious socioeconomic conditions and/or belonging to more vulnerable groups is denoted. In a public hospital in Fortaleza, it was found that the highest number of prenatal consultations prevailed in the group of mothers whose babies were born without complications and that the babies of women with extreme age had a higher frequency of need for neonatal ICU.¹⁸

The presence of a companion in the birth process provides humanization of care, transmits security and comfort to the woman, and stimulates the bond with her family environment. But, despite the benefits, it is not guaranteed in some public maternity hospitals in the country, due to flaws in the physical structure of the environment and lack of awareness of health professionals.¹⁹ The presence of a companion in labor implied a greater offer of liquids or food to the pregnant woman, prescription of diet, use of non-pharmacological methods for pain relief and reduction of trichotomy and enema. In labor, it provided the adoption of a non-lithotomy position, skin-to-skin contact between mother and baby, and reduced Kristeller maneuver.²⁰

The companion was more prevalent in the public sector. It is understood that their intrapartum support is fundamental and that women feel the need to be in contact with someone from their family before, during, and after delivery, making the moment less stressful for them.²¹

The initiation of breastfeeding should occur within a period characterized as "sensitive", which comprises the first two hours postpartum. This moment is considered ideal, because the newborn is more sensitive to tactile, thermal, and odor stimuli, and the levels of catecholamines are high,

which contributes to keeping him active and, consequently, makes the initiation of breastfeeding easier.¹⁶ The results of this study are favorable, because most newborns started breastfeeding in the hospital. However, most of them did not have access to breastfeeding right after birth, but rather in the room or in the rooming house. It is noteworthy that women who breastfed immediately after birth and in the delivery room were more prevalent in the SUS.

A study conducted in hospitals of the Unified Health System in the municipality of Rio de Janeiro showed that the late initiation of breastfeeding was significantly higher among mothers who did not undergo prenatal care (79.2%), underwent a cesarean section (70%), were unaware of their HIV serological status at the time of delivery (66.2%), or stated that the hospital staff had not listened to their doubts about breastfeeding (59.2%). One in four mothers was an adolescent and 31.9% had not completed elementary school.²²

The immediate postpartum period is delicate, so professionals must take specific and careful care with women in order to avoid bleeding or infections.¹⁵ The evaluation during this period begins in the first hour after delivery and continues until discharge. This assessment includes measuring vital signs, physical examination, pain level, uterine contraction, inspection of lochia, episiotomy, perineum, urinary elimination, emotional assessment, encouragement of breastfeeding in the baby's first hour of life, contact with the mother, among others. It is necessary for the professional to keep in mind the risk factors that can lead to complications, such as infection or postpartum hemorrhage, because early identification is fundamental to guarantee rapid intervention.^{5,7}

It is ratified that most of the women in this study were monitored for vital signs and fundus and lochia assessment, however, this assessment was more prevalent in women funded by the public system, which contradicts the studies that bring a reality of assistance in public funding that is poorly qualified. As for breastfeeding, most of the newborns had breastfeeding started in the room, thus favoring uterine contraction. It is understood that these procedures should be performed in 100% of puerperae, because they are low cost and easy to apply and require only one trained professional.

In another study, the high prevalence of complications during pregnancy showed no significant difference between women who had their babies delivered by the public sector and those who were delivered by the private sector. However, vaginal bleeding was in a higher proportion in those with health insurance or privately funded deliveries.²³

It is noteworthy that postpartum hemorrhage is a public health problem and significantly increases the cost of health care worldwide. Moreover, the analysis of risk factors in specific groups can contribute to the early recognition of future complications, especially by offering a unique and differentiated care and safer deliveries for women and their families.²⁴

Therefore, it is essential to guarantee the rights of women, such as the reception, the presence of a companion during labor and postpartum, and the increase in the number of quality prenatal consultations, which contributes to answer

all the doubts of pregnant women and the early identification of changes that can lead to maternal and child complications, as well as providing them with more knowledge about the advantages of normal birth and early breastfeeding. Moreover, reproductive planning is a factor that can reduce problems faced by the most vulnerable class, since an unwanted or poorly planned pregnancy can directly interfere with possible complications during pregnancy, delivery, and the puerperium. Moreover, the increase in physical and human resources, the greater training of professionals, and the ease of access to all health services can be considered as attenuating the problems already discussed.

CONCLUSION

In the present study, it was found that obstetric care during the fourth period after delivery was satisfactory and of quality, and that women financed by the public system had lower chances of having complications and death due to obstetric consequences. It is noteworthy that women considered vulnerable were attended more by the public sector, compared to the private sector, implying a positive outcome, a qualified assistance and effective, humanized and scientific care to these women.

It is noteworthy that the hospital where the study took place is also used for teaching subjects in technical and higher education courses in the city, especially in sectors funded by the Unified Health System. This fact may be what makes the quality of care for these women. Therefore, the importance of studies that prove this relationship between quality of care and the insertion of the internship in the hospital studied is noted.

It is understood that these results are relevant, because quality and appropriate obstetric care at each period of labor reduces maternal and infant mortality resulting from complications occurring in the postpartum period. In addition, the more qualified postpartum care in the public sector revealed in this study can serve as a parameter to identify the factors that prevent this same reality in the private sector, which may contribute so that it also offers better quality care.

It is expected that this study will provide greater knowledge to health professionals about the care provided to women in the immediate postpartum period, thus avoiding the occurrence of serious complications that are frequent after childbirth, such as postpartum hemorrhage and interventions that can generate unnecessary expenses to the institution.

Moreover, it is emphasized the importance of nurses and other professionals to be even more attentive and prepared for the care of women considered more vulnerable, due to age, race, education, marital status, and standard of living.

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