Analysis of births attended by nurse midwives under the perspective of humanization of childbirth

Carlos Sérgio Corrêa dos Reis¹, Danielle de Oliveira Miranda de Souza², Maria de Fátima Hasek Nogueira³, Jane Márcia Progianti⁴, Octavio Muniz da Costa Vargens⁵

How to quote this article:
Reis CSC; Souza DOM; Nogueira MF; et al. Analysis of births attended by nurse midwives under the perspective of humanization of childbirth. Rev Fund Care Online. 2016 out/dez; 8(4):4972-4979. DOI: http://dx.doi.org/10.9789/2175-5361.2016.v8i4.4972-4979

ABSTRACT

Objective: Analyze births attended by nurse midwives relating their practice to the policy of humanization of childbirth. Methods: Descriptive, retrospective, quantitative study based on documentary analysis of 745 births attended by nurse midwives during the year of 2011 in a municipal maternity in Rio de Janeiro, Brazil. Results: The first-time mothers represent 44,16% of the women in labor. The recurrent interventions were the administration of oxytocin and the amniotomy. The dorsal horizontal position occurred in 12,89% of childbirths. The incidence of episiotomy was 15,52%. Among those women not submitted to episiotomy, 36,42% remained with intact perineum. Only one case of severe perineal laceration occurred. The neonatal asphyxia (Apgar < 7) occurred in 0,55% of childbirths. Conclusion It was highlighted the importance of monitoring the labor by nurse midwifes that values and put into practice the recommendations of the Health Ministry regarding the humanization of childbirth.

Descriptors: Humanized delivery, Humanization of assistance, Professional practice, Obstetrical nursing.

¹ Nurse Midwife; Doctor of Nursing; Associate Professor at the School of Nursing of UERJ; Research Group researcher on Gender and Violence in Health and Nursing.
² Obstetric Nurse; Master in Nursing; Researcher at the Research Group on Gender and Violence in Health and Nursing.
³ Obstetric Nurse. PhD in Sciences. Adjunct Professor of the Nursing Faculty of the State University of Rio de Janeiro, Brazil.
⁴ Obstetric Nurse; PhD in Nursing; Associate Professor at the School of Nursing of UERJ; Deputy leader of the Research Group on Gender and Violence in Health and Nursing.
⁵ Nurse Midwife; PhD in Nursing; Professor of the Nursing Faculty of UERJ; Coordinator of the Center for Studies and Nursing Research on Women, Health and Society (NEPEN_MUSAS); Research Group Leader on Gender and Violence in Health and Nursing.
RESUMO

Objetivo: Analisar partos acompanhados pelas enfermeiras obstétricas relacionando sua prática com a política de humanização do parto e nascimento. Métodos: Estudo descritivo, retrospectivo, quantitativo, baseado na análise documental de 745 partos acompanhados por enfermeiras obstétricas no ano de 2011 em uma maternidade municipal do Rio de Janeiro. Resultados: As primigestas representaram 44,16% das parturientes. As intervenções mais recorrentes foram a administração de oxitocina e a amniotomia. A posição horizontal dorsal ocorreu em 12,89% dos partos. A incidência de episiotomia foi de 15,52%. Das que não foram submetidas a episiotomia, 36,42% permaneceram com períneo íntegro, havendo apenas um caso de laceração perineal grave. A asfixia neonatal (Apgar < 7) ocorreu em 0,55% dos partos. Conclusão: Evidenciou-se a importância do acompanhamento do trabalho do parto pela enfermeira obstétrica, que valoriza e põe em prática o que é preconizado pelo Ministério da Saúde no que se refere à humanização do parto e nascimento.

Descritores: Parto humanizado, Humanização da assistência, Prática profissional, Enfermagem obstétrica.

INTRODUÇÃO

Assistance to labor and birth has been marked throughout the world by adopting interventionist practices, such as the use of medications and other procedures to accelerate or control the natural process of parturition, in addition to high rates of cesarean sections. Routine and overuse of interventions not recommended and no clear evidence of this process must occur in physiological manner can cause maternal and perinatal adverse implications.1,2

In many countries, including Brazil, low obstetric risk pregnant women undergo routine intravenous infusions and the administration of oxytocin during labor and delivery with no real indication.3 Women are laid down in a horizontal position during labor, with continuous fetal heart monitoring and their deliveries, as a rule, take place in the lithotomy position. Some countries still strictly follows the medicalized model where trichotomy, the enema, amniotomy, the reduction of the cervix, the uterus background compression and episiotomy are routinely applied, completely ignoring the WHO recommendations for a normal delivery healthy and humane4.

The historical analysis of the health of the woman combined with exclusively biological concept, socially constructed, the female body, characterizes this population as the object of actions and not as a subject of these.3,4 In an attempt to rescue the female role, the Ministry of Health is encouraging health services to adopt a more humane attitude, less controlling, in which the woman is subject and actively participate in the process. Therefore, seeking to modify the model of over-medicalization of childbirth was prepared the Program for Humanization of Prenatal and Birth (PHPN - Program for Humanization of Prenatal and Birth)5. Despite the government's efforts to create programs that direct the practice of health services to promote a good quality service, they depend, as PHPN, interpretation and incorporation of professional for implementation and deployment.

In this context, the nurse-midwifery of Rio de Janeiro has used non-invasive technologies nursing care (NITNC), to promote self-awareness and provide more comfort, autonomy and satisfaction for the woman, her son and his family. The design of NITNC involves several features like the different dimensions of knowledge structured to integrate diverse knowledge, the rescue by the nurse-midwife of pregnancy physiology and normal, physiological birth and care/non-invasive practices of the body, the mind or the privacy of women, drawn up between the nurse-midwife who cares and woman receiving care.5,6

These NITNCO are also used by nurse-midwives as a strategy for the medicalization of labor and delivery, therefore, believe that the humanization of labor and birth, as proposed by the World Organization of Health1 and adopted by the Ministry of Health2 will only be possible the elimination of interventions used routinely and without criteria that justify it.6

OBJECTIVE

Analyze births attended by nurse-midwives relating their practice with the labor and birth humanization policy.

METHOD

Descriptive, retrospective study with a quantitative approach based on document analysis. The data are related to the 745 births attended by nurse-midwives in 2011. There were collected from the book of records of births attended by nurse-midwives of a municipal maternity of Rio de Janeiro, by completing an elaborate instrument from the data of this book.
In this institution we observe the coexistence of technocratic and humanized models of delivery and birth care.

Data analysis was performed using descriptive statistics organized according to absolute and relative frequency, considering the records in the birth record book accompanied by nurse-midwives. Data not reported related to each variable were considered losses of information, not counting for analysis.

The variables analyzed were: number of pregnancies, maternal age, development and prenatal often use medicalized interventions, amniotic fluid characteristics, positioning of the mother at delivery and perineal condition. They also analyzed the non-invasive technologies of obstetrical nursing care most used by pregnant women during labor and delivery, in addition to birth weight and newborn adaptation conditions in the 5th minute of extra-uterine life assessed by the index Apgar.

This study is linked to the Center for Studies and Research Nursing, Women and Society (Nepen - MUSES) through the Research Group on Gender and Violence in Health and Nursing whose project was approved by the Ethics Committee of the Municipal Health, under protocol number 189/09, respecting the legal and ethical principles involved in the research involving human beings, according to Resolution No. 196/96.9

RESULTS

Of the 745 women who gave their births attended by nurse-midwives in maternity target research in 2011, 230 (30,87%) were adolescents (under 20 years). Regarding the number of pregnancies, 329 (44,16%) were primiparous (became pregnant and gave birth for the first time), 209 (28,05%) were secondparous and 207 (27,79%) had been pregnant more than twice. It was found that 691 (92,75%) of mothers began prenatal consultations, however, 460 (66,57%) of all pregnant women who started approximately two thirds attended six or more consultations that lasted similar in different age groups, under 20 years of age, between 20 and 35 years of age and over 35 years of age women distributed in the study.

Delving on the job or not practices classified as interventionists (serum administration with oxytocin, artificial rupture of the amniotic membranes, uterus background compression, resection of the cervix and episiotomy), it was found that of all women who gave their births attended by nurse-midwives in 316 (42,42%) labor and delivery have evolved without the use of any of these behaviors. Among the most used interventions included: intravenous administration of oxytocin in 370 (49,66%) and the realization of amniotomy 204 (27,38%), and the association of these behaviors evidenced in 125 (16,78%) women during labor and delivery.

When evaluating employment practices/care that do not interfere with the physiology of parturition process available to pregnant women by the institution and/or by nurse-midwives who use NITNC and act from the perspective of humanized care delivery and birth, it was found 549 (73,69%) had the passenger’s presence in a participatory manner during labor and delivery, 626 (84,03%) used the practice of breathing exercises. Encouraging free ambulation was adopted in 227 (30,47%), freedom of pelvic thrusts in 194 (26,04%), the adoption of lateralized positioning was found in 159 (21,34%), water usage warm through spray bath in 152 (20,40%), conducting massages, simultaneously stimulating companion to massage the mother 96 (12,89%). Other measures have also been employed, such as aromatherapy, cryotherapy, but less frequently. Also important to note that the number of care/practices used by laboring women ranged from one to seven.

As for the position taken by the mother during the second stage, the total of 736 records, the vertical position (sitting, semi-sitting, squatting or standing), was found in 551 (74,86%) births. In 185 (25,14%), fetal expulsion occurred in a horizontal position, thus distributed: supine in 95 (12,91%) and lateral decubitus and four supports 90 (12,23%).

Table 1 shows the perineal condition, after completion of the second stage, the women who gave their births attended by nurse-midwives. Of the 741 records on the performance or nonperformance of episiotomy it was found that this procedure was performed in 115 (15,52%) of women. This review when checked a total of 329 first pregnancy was equal to 55 (16,72%).

Of the 626 pregnant women who have not undergone this surgical incision, 228 (36,42%) remained with intact perineum, ie, there was no type of perineal injury or vaginal mucosa.

The records relating to the perineal laceration, it was found that the total of 353 women who had reported degree perineal laceration, (308/87,25%) was classified as the first degree. The injury of 3rd degree was found in only 01 (one) woman in labor.

Table 1 – Numerical and proportional distribution of perineal condition of pregnant women who had their births attended by nurse-midwives. Rio de Janeiro, Brazil, 2011

<table>
<thead>
<tr>
<th>Table 1 – Numerical and proportional distribution of perineal condition of pregnant women who had their births attended by nurse-midwives. Rio de Janeiro, Brazil, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Realization of episiotomy (N=741)</strong></td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td><strong>Episiotomy in primigravidae (N=329)</strong></td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td><strong>Non undergoing episiotomy (N=626)</strong></td>
</tr>
<tr>
<td>Intact perineum</td>
</tr>
<tr>
<td>Perineal laceration</td>
</tr>
<tr>
<td><strong>Laceration type (N=353)</strong></td>
</tr>
<tr>
<td>First degree</td>
</tr>
<tr>
<td>Second degree</td>
</tr>
<tr>
<td>Third degree</td>
</tr>
</tbody>
</table>
Regarding the variables related to the study referred to the condition of birth and adaptation of the newborn it was found that, in relation to the characteristics of amniotic fluid obtained after spontaneous rupture (PROM) or artificial (amniotomy) of amniotic membranes, there was predominance of clear liquid with lumps. However, the red liquid meconium was present in 96 (12.89%) of births, whose deliveries were followed by midwives.

Table 2, in relation to birth weight, shows that, despite the majority of infants are in the weight range between 2500 and 4000g, 24 (3.22%) were low weight and 29 (3.89%) were large for gestational age respectively. This table also shows that 99.45% of 732 records for the Apgar index at 5 minutes of extra uterine life had a value equal to or greater than 7 (value assigned by the neonatologist or pediatrician in the delivery room).

Table 2 - Numerical and percentage distribution of birth weight and Apgar index in the 5th minute of extra-uterine life of newborns whose mothers had their births attended by nurse midwives. Rio de Janeiro, Brasil, 2011.

<table>
<thead>
<tr>
<th>Birth weight (g)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2500</td>
<td>24</td>
<td>3.22</td>
</tr>
<tr>
<td>2500 – 4000</td>
<td>692</td>
<td>92.89</td>
</tr>
<tr>
<td>&gt; 4000</td>
<td>29</td>
<td>3.89</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Apgar Index</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; ou = 7</td>
<td>728</td>
<td>99.45</td>
</tr>
<tr>
<td>&lt; 7</td>
<td>04</td>
<td>0.55</td>
</tr>
</tbody>
</table>

DISCUSSION

The main finding was seen from the results that the midwifery of the institution is contributing and participating effectively in the paradigm shift with regard to the process of parturition and birth, using the NITNC as a resource for demedicalization of childbirth, which for means ensuring the women and children to be subjected to experience their own labor and birth, thus trying to ensure the implementation of care/humanized obstetric practices in hospital environment, as proposed by the birth humanization model and birth recommended by WHO1 by the Ministry of Health of Brazil.

Emphasize that these results were only possible because of the active and determined participation of the group of obstetric nurses involved in the change of perspective in the form of giving birth and birth, the involvement of the Municipal Health Secretariat of Rio de Janeiro, the board of directors and managers of maternity services, programs and guidelines related to humanization of labor and birth, the responsibility to change the assisted population behavior, impregnated by medicalized model of childbirth care and birth, the role of more focused assistance in women and children and I respect the physiology of labor and no unnecessary intervention and the scientific evidence produced by the results produced.

Monitoring of labor and childbirth in adolescents

Government data show that although the birth rate and fertility in Brazil, presenting steady decline over the past ten years in all age groups of women. However, this decline has been less pronounced among adolescents than in other age groups. This can lead to the understanding that the public hospitals the proportion of pregnant adolescents, compared to other age groups shows a greater every year.

Our results indicate that approximately one third of births attended by nurse midwives, (30.87%) was teenagers, versus roughly a quarter (26.4%) observed by another study13 from 2004 to 2008 at the same institution. This observed increase in this maternity may be related to birth rates and fertility in this group and/or because of obstetric nurses who work in this institution from the perspective of humanization of childbirth, understand that in this period the adolescent experience beyond the physical changes, emotional and social situations related to pregnancy puerperal period as stated by study 2011, such as: compliance of the pelvis, the elasticity of the muscles and perineal tissues, fears, anxieties, misinformation.

The ratio of the number of pregnancies and monitoring by the nurse-midwife

The data relating to the monitoring during labor and delivery done by obstetric nurses in this unit, considering the number of pregnancies of mothers, have shown a steady increase in assistance to primiparous group (44.16%) versus (36.6%), 2004 and 2008. This increase in primiparous, as well as the increase in teenagers, can represent a corresponding increase interventions, since the technocratic assistance model, these would be more subject to interventions, such as the episiotomy order to perineal protection. This was not observed in our results, where it was found that despite increased attention to these specific groups by nurse-midwives was not directly related to the number of interventions. It was found that the episiotomy percentage of these groups has decreased over the years in service (16.72%), lower percentage than found in the previous study was (44.0%). Still, there was no increased incidence of severe perineal injuries, which remained constant in the institution and similar to that found in other services, where the nurse works in monitoring during labor and delivery. This percentage was also lower than those found in other studies, whose authors evaluated the incidence of episiotomy in nulliparous.

The importance of monitoring in prenatal care for the outcome of childbirth

For the Ministry of Health, the prenatal care is to ensure the growth of the pregnancy to term, allowing the birth of a healthy child without the mother's health impairment. Monitoring during prenatal had to be constituted as the
first measure to the process of humanized childbirth. In this respect, the nurse who works from the perspective of humanized delivery has developed important role is the monitoring of maternal and fetal conditions, the orientation process of the pregnant woman and their active participation during labor and delivery and preparation when his passage through the delivery room.

The guarantee of a quality prenatal presents proven impact on maternal and perinatal morbidity and mortality. In this regard, it was found that remained practically unchanged the percentage of women who began prenatal care and had at least six visits at birth, in the present study (referring only to 2011), the period evaluated 2004–2008. It also draws attention the related results, monitoring of prenatal care of teenagers who had their births attended by nurse-midwives that was similar to that observed in other age groups.

**Employment practices classified as interventionist**

Despite the difficulties encountered by nurse-midwives, especially those who work in institutions that still live with the different models of care, these professionals have been shown to be possible to suppress or eliminate certain behaviors such as holding the enema and trichotomy.

The study also showed that (42.42%) of pregnant women who were followed by nurse-midwives and passed throughout the parturition process without any interventionist conduct was adopted. This result is similar to that seen in another study that also examined births attended by nurse-midwives at a public hospital in Rio de Janeiro. Both studies show that the process of medicalization of childbirth can happen, even in an environment which, in principle if adverse show. However, despite the previously mentioned results, it was found that the administration of oxytocin is shown still high (49.66%), very close to the results of other studies which showed 55% and 54% respectively.

**Use of non-invasive technologies of obstetrical nursing care for women who gave their labor and delivery accompanied by nurse-midwives**

When comparing the results of previous studies with the current study it was found that the provision by obstetric nurses TNICEO and use every day more effective by mothers in monitoring the labor and delivery in this institution have contributed in the past years to reduce the number of routine operations that affect the physiological process of childbirth. By acting in this way the nurse-midwife enables the mother becomes more secure, confident, active and participative its parturition process during the passage through the delivery room.

**Position adopted by the woman at delivery**

Non-lithotomy or supine posture adopted by (87.09%) of women who gave their births attended by nurse-midwives in the target institution in the study were similar to the results obtained in other research, demonstrating that this has been a professional agent fundamental importance in changing give birth and birth order. These results go against recommendations that women should be encouraged to give birth in the position for them more comfortable and evidence that the adoption of non-supine positions and alternatives have produced better results for both the mother and the fetus and newborn.

**Perineal condition of pregnant women after completion of the second stage**

The availability of NITNCO during labor and delivery, with other strategies used by nurse-midwives during prenatal care in the county Janeiro River has significantly changed the conduct of labor and labor in some institutions of this municipality. These changes have produced results questioning behaviors hitherto adopted in most of childbirth care institutions.

Noteworthy is the observed result that in 36.42% of women who did not undergo episiotomy it was perineal integrity. This result supports the idea that not every woman, even the first pregnancy and/or nulliparous, must be submitted to episiotomy. Other studies have also pointed to decrease each year in the incidence of this procedure both in their first pregnancy (16.72%), a lower rate than those found episiotomy in nulliparous as in multiparous without providing increase in adverse conditions both for the mother and the newborn.

Despite this result be very close to those recommended by WHO, are still quite distant from those obtained by House of Birth David Capistrano Filho where nurse-midwives have in principle respect the physiological process and the empowerment of women in monitoring the labor and delivery. Another result that deserves to be highlighted in the study is related to the presence of perineal lacerations in 353 records. Of this total, 87.25% were classified as first degree and 12.46% and 0.29% classified as second and third degree respectively, results similar to those found in another study.

Stricter indications of administration of oxytocin infusions, the rupture of amniotic membranes, the compression of the fundus and the reduction of the cervix associated with the increased use of NITNCO have proven to be effective in decreasing episiotomy rates in births attended by nurse-midwives.
Newborn condition evaluated by the Apgar index in the 5th minute of extra-uterine life whose deliveries were followed by nurse-midwives.

Perinatal asphyxia associated with childbirth, is still a major cause of morbidity and mortality. Evaluation by the Apgar score, used since the 1950s, remains the only method used in many countries. A value of lower Apgar score than 7 at the 5th minute of life has become the most important reference in the diagnosis and prognosis of asphyxia, considering among other factors, its relationship with mortality24.

Our findings related to the adaptation of the newborn to extra-uterine environment, assessed by Apgar score at 5 minutes of life equal to or greater than 7 (99.45%) were similar to those found in other research, 15 with 99.9% in newborns of Natural Childbirth Center, 99.4% of neonates born at the hospital, and also the 99.7% found in the House of Birth David Capristano Filho23.

Changes in the way of birth associated with changes in the reception of newborns appear to have benefits for both the mother and the child. The presence of the companion during labor is one of the factors responsible for lower Apgar scores less than 7 on the newborn's condition25.

CONCLUSION

The study shows that even in the hospital environment is still predominant model of technocratic and medicalized care, obstetrical nurse who works from the perspective of humanized delivery care and birth has been shown to be an important agent in the labor and delivery demedicalization, understanding that the replace practices and interventions classified as routine usually interfere in a deleterious manner with the parturition process, care/practices that do not interfere with physiological development of labor and delivery and that make the mother and accompanying active and participative actors in this process.

In this context, to act in this way the nurse-midwife have collaborated and contributed significantly to public policy of Humanization of Birth and Labor of the Ministry of Health of Brazil and attended the recommendations issued by the World Health Organization in order to increase the normal vaginal delivery and the reduction of maternal, perinatal and neonatal morbidity and mortality.

Acknowledgment

The Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPQ), which funded the project of this research.
REFERENCES


