



Analysis of a humanization proposal to the childbirth

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ABSTRACT. The objective of this research study was to analyze the continuity of activities implemented in a maternity ward in the city of Londrina to improve humanized childbirth assistance. This is an observational study, with a qualitative approach, featuring a study sample of 30 parturient women diagnosed with impending labor, as well as staff, faculty and students, totaling 28 health professionals. The instrument for data collection was based on categories of obstetrical practices of the practical guide for normal delivery assistance from the OMS (1996), which were checked through the observation technique during labor, delivery and postpartum, consisting of variables related to patient obstetric history transcribed from medical records. We observed some positive point; for instance, all women had the company of another person during moments of assistance, privacy in the form of screens and curtains, relaxation techniques, among others. We observed some negative points when the parturient was not given the right to decide on a preferred position for labor, as well as frequent vaginal tests, performed by more than one person. It can be assumed that all implemented measures have discouraged medical-assisted childbirth, and encouraged biomechanical practices and interventions during labor, which are considered more appropriate to the physiology of the procedure.

Keywords: humanized labor, maternity ward, women's health.

Análise de uma proposta de humanização ao parto

RESUMO. O objetivo desta pesquisa foi analisar a continuidade das atividades que foram implementadas numa maternidade do município de Londrina, Estado do Paraná, para melhorar o atendimento humanizado ao parto. Estudo observacional, com abordagem qualitativa, cuja população foi composta por 30 parturientes com diagnóstico de trabalho de parto efetivo e funcionários, docentes e alunos totalizando 28 profissionais da saúde. O instrumento de coleta de dados foi embasado nas categorias das práticas obstétricas do guia prático da assistência ao parto normal da OMS (1996) que foram checadas por meio da técnica de observação durante trabalho de parto, parto e puerpério imediato e foi composto por variáveis referentes à história obstétrica. Como pontos positivos, observou-se que em todas as mulheres foram realizados cuidados como, presença de acompanhante; privacidade com uso de biombo e cortinas; técnicas de relaxamento entre outros. Os pontos negativos observados foram a impossibilidade do direito de escolha da posição preferida para o parto e a realização de exames vaginais frequentes, especialmente, por mais de um prestador do cuidado. Pode-se considerar que o conjunto de medidas humanizadoras implementadas tem desestimulado o parto medicalizado, e incentivado as práticas e intervenções biomecânicas no trabalho de parto, consideradas como mais adequadas à fisiologia do mesmo.

Palavras-chave: parto humanizado, maternidade, saúde da mulher.

Introduction

When discussing humanization of childbirth assistance, it is observed that there is no rule stating how to do it, but proposals which aim at the respect and promotion of the women and children rights to assistance based on scientific evidences, and not on the traditional model still current in many maternity ward units.

According to Queiroz et al. (2003), the term humanization of the childbirth assistance includes a set of demands, such as the right to choose the place, people and ways to assist the childbirth; the preservation of the corporal integrity of mothers and

children, the respect to the childbirth as highly personal, sexual and familiar experience; the assistance to health and emotional, social, and material support in the pregnancy-puerperal cycle; the protection against abuse and negligence. These are activities which involve the human relationship, that is, the basis of professionals of the health area.

The Brazilian Ministry of Health (MS), by the Ordinance/GM no. 569, of June 1st, 2000 (BRASIL, 2000), states that the humanization of the childbirth would be to receive the woman, familiars and the newborn child, exerting an ethical and solidary attitude by the health professionals, in order to

create an inviting environment and to establish hospital routines that breaks the traditional isolation imposed for the woman.

An anthropological point of view allows observing that since ancient times the women were exposed to possibilities of dying during the childbirth, to lose the child or to suffer permanent injuries. Due to the patriarchal model existing at that time, the woman suffering during the childbirth was considered as inherent to feminine condition, which was supported by a negative understanding of the biblical quotation: "in pain you shall bring children" (BÍBLIA SAGRADA, 1999). This quotation was associated to the vision of the exercise of sexuality as the punishment imposed to Eve when was expelled from the paradise.

In 1985, the World Health Organization (OMS) and the Pan American Health Organization (PAHO) - Regional Office for the Americas (AMRO/OMS), in Fortaleza, Ceará State, Brazil, set a series of recommendations based on a similar variety of practices. This document presents four categories to obstetric practices: a) demonstrably useful and which must be stimulated; b) clearly prejudicial or ineffective and which must be removed; c) in relation to which there are no evidences enough to support a clear recommendation and which should be used very cautiously, until further researches clarify the issue; d) frequently utilized inappropriately (OMS, 1996).

More than 20 years of excessive medical interventions during the childbirth created representations very strong about the feelings of dread that involves the labor (OSAVA, 2003). During the humanized labor, the woman can find again her autonomy, requiring new posture from the professionals.

This posture needs to be supported by deep approach of the loving ties as the basis on the care. In this ideal, the woman comprehends her physiology and the integration among the moments which involve the sex, the childbirth, the breastfeeding and the love of mother. It is understood then that is necessary an encounter between the woman and her corporeality, thus reducing anxiety and the fear of pain during the labor (CARVALHO, 2002).

In this context, the humanization of the assistance is trying to get space through professionals, protocols and researches which show the importance of the conscience to treat with love and respect each person individually.

In 2007, the Municipal Maternity Ward Lucilla Ballalai (MMLB) won the V Galba de Araújo Prize,

offered by the MS to highlight those hospitals which most invest in normal labor and in humanized attendance to pregnant women and their newborn babies. This award was conceived to the maternity in virtue of the reduced number of cesareans and the structure offered to the pregnant during the labor, childbirth and postpartum, among other requirements. This study is justified while an evaluation proposal of the maintenance of the indicators that led this institution to be awarded.

Under these circumstances, the aim was to analyze the humanized model of health assistance implanted in a maternity of the Londrina municipality, Paraná State.

Material and methods

This is an observational study, with qualitative approach. The MMLB was created in 1992 and attends 100% of the patients by the Public Health System (SUS). It is a structured service for the attendance to the low risk labor.

The study included a total of 30 parturients hospitalized in the institution with diagnosis of effective labor, 28 employees working in the morning, afternoon and night periods, in the prenatal and childbirth sector, among them are physicians, obstetrician nurses, auxiliary and technician nurses and students and professors of graduation and residency programs in nursing and medicine.

The parturient to be contemplated in the study, should be at least 18 years old and in true labor. The parturient was approached when admitted in the prenatal, when the researcher explained the project and clarified eventual doubts, presenting her the informed consent form. All the employees, professors and students who were acting in the prenatal and childbirth unit were included in the population study, after their consent.

We emphasize that the observational research, as unfolding of the participant research, is characterized by the interaction between researchers and the members of the investigated situations, which when observed, became the main object of the study (SILVA; GRIGOLO, 2002). Despite of its distance from the traditional academic objectivity, is favored the possibility of application and practical evaluations, in real time, of the theme under study (GIL, 1999).

This study was authorized by the Health Municipal Autarchy of Londrina municipality and approved by the Committee on Ethics in Research of the State University of Londrina, Regulatory Opinion no. 070/09.

The data collection tool was based on the four categories for obstetric practices from the practical guide to normal labor assistance of the OMS (1996), checked by means of the observation technique of the care during the labor, childbirth and immediate puerperium, and also composed by variables related to the obstetric history, transcribed from medical records. The parturient selection was randomized, according to the previously mentioned criteria, including the morning, the afternoon and the night periods duties.

Results and discussion

The MMLB counts on a multiprofessional team, constituted by physicians, obstetrician nurses, nurses, nutritionist, social assistant, phonoaudiologist, dental hygiene technicians, technicians and auxiliary nurses, and other professionals of support.

At the moment of the parturient arrival at the hospital reception, a doorbell sounds to warn the work team of her presence. Next, an employee sends the parturient for medical evaluation. After this procedure, if necessary hospitalization, the parturient is admitted at the prenatal unit. In this sector, she is received by the obstetrician nurse, auxiliary and technician nurse, who orientate about the unit routine and provide all the necessary information. During this labor stage, the parturient is frequently evaluated and oriented by the team.

After delivery, the woman is sent to the hospital ward, where remains for 48 hours. If the mother and the baby are fine, they can be discharged from the hospital.

In relation to the parturient, was observed that 40% of the women were between 18 and 19 years old, i.e. most were teenagers; 23% were in the age range of 25 to 29 years old; 16% between 35 and 39 years old; 10% between 20 and 24 years old and 10% between 30 and 34 years old.

According to Goldenberg et al. (2005), teenage pregnancy is more frequent in the most disadvantaged social segments and represents, in a significant number of cases, a worsening in the complex existential picture, compromising the professional future, making difficult the return to school and restricting the work opportunities.

Some studies reveal a high morbimortality rate in this group. Among the explanatory mechanisms are found those of biological nature, such as the reproductive system immaturity, inadequate weight gain during the gestation and sociocultural factors, among them, poverty and social marginalization, combined with the life style adopted by the teenager. Furthermore, the lack of prenatal cares by

the teenagers, associated with poverty and the low levels of education, has playing a prevalent role in the causal chain of low weight newborn babies (GAMA et al., 2001).

In turn, Mazzini et al. (2008) concluded that the parturient teenagers, when receive appropriate cares with prenatal care and family support are not necessarily under risk situation. Only when the pregnancy is unwanted, without family support, or social network support, is when could be considered as a risk factor for the mother and the child development, or a vulnerability situation, in these cases, at any age, affirm the authors.

The level of schooling of the studied population can be considered as good, once 56% of the women had eight years or more of education. In a study carried out in Swedish, with pregnant women only with primary education, revealed anxiety level in the first two periods of the labor higher than the pregnant women with higher schooling (CHARLES et al., 1978). The level of schooling implicates both in the intellectual knowledge of each one and also in the communication and in the exchange of real information with the health professionals, whereas the common sense given by the society is often mythical and traditional.

In relation to the marital status, 80% of the patients possessed a partner. Piccinini et al. (2007) have investigated the maternal responsiveness in families of single mothers and nuclear families. It was verified expressive differences between the two groups, both in the responsive sequences, in particular in relation to the crying, and in the non-responsive, regarding the crying and the vocalizations, indicating therefore that the single mothers were less responsive than the married mothers.

According to Brazelton (1988), the father favors the visualization of the baby as a being separated from the mother and fruit of his desire, thereby sharing the responsibility in the upbringing of the children, what tends to minimize the mother's feelings of anxiety and incapacity face to her role.

In relation to the occupation, the majority of these women (64%) did not work outside the home. This becomes a significant advantage for the maternal breastfeeding, because according to Osis et al. (2004), the women's work outside home has been pointed out as one of the reasons for the non-breastfeeding and the early weaning.

According to the previous obstetric history, 80% of the women were primigravidae or secundigravidae, with normal labors and living children. Only two patients had history of previous natural abortion. None of these women presented intercurrent during the gestation.

All the women performed prenatal care, in which the majority had initiated in the first trimester and was consulted at least six times. The humanization program in the prenatal and birth (PHPN) establishes that the minimum number of consultations must be of six consultations, preferably, one in the first trimester, two in the second trimester and three in the last trimester. The women are being encouraged to perform the prenatal care and are responding to this calling. They believe that will have benefits when seek the health services. They are putting their trust and deliver their bodies to the authorized people, legally, to take care of them (BRASIL, 2000).

Among the observed childbirths, 10 % were cesareans, all with justified indication, such as the alterations in the fetal cardiac frequency which led to suspected fetal risk; the structural abnormality by the accident of the parturient pelvis, and interactivity. These data are a positive reflex in the humanized care process of the service, because these cesarean indications were propitious, once this practice suggest attempt to avoid or revert any major complications to the mother-baby binomial.

The WHO recommends that the total of cesareans in relation to the total number of childbirths performed in a health service consist in 15%. This decision is based on the principle that only 15% of the total of childbirths presents necessary indication of cesarean, that is, the existence of a real situation in which to preserve the mother and/or fetus health is fundamental that this procedure occurs surgically, and not naturally (OMS, 1996).

The intervention to perform cesareans must be justified by a legal purpose and not only by the health professional decision. Mothers with surgical childbirth have more difficulties to breastfeed, due to the bad position or the unsuitable affective involvement. Besides that, the cesarean delays or difficult the first feeds by the alteration of the mother and the newborn baby endocrinal answers immediately after the childbirth, indicating that the surgical act provokes pain and somnolence, and the use of anesthetics and analgesics affects the interaction mother-baby (NARCHI et al., 2009).

Among the conducts observed in this study, it was possible to notice that the parturient received the orientations and information about the procedures such as the bath, the uterine height measuring, the vaginal touch examination, the listening of the fetal heart beat, the service routines, and the companion presence. This care is very important, because during the labor the woman is welcomed and be aware of the service procedures.

All the parturient had the opportunity to have a companion of their choice during the labor and post-labor. It is very important the presence of a companion, previously prepared with information and sensitivity for the experience.

More than a decade ago, the Brazilian Ministry of Health recognized the right of the pregnant to a companion of her choice during the labor (OMS, 1996). Moreover, in 2005, a law was approved which guarantee legal rights to the companion presence during the labor, delivery moment, and in the immediate postpartum (BRASIL, 2005).

Particularly in relation to the birth and the childbirth, the scientific evidences indicate that the presence of companion contributes for the safe occurrence of the labor, childbirth and postpartum, facilitating this process, with consequent improvement of the woman and the newborn health indicators and the well-being of both. The companion's presence that guarantees continuous support, along the labor and postpartum, reduces significantly the percentage of cesarean parturitions, the labor duration, the use of analgesia/anesthesia and oxytocin, and the prolonged hospitalization of the newborns (HODNETT et al., 2007).

The enemas are still largely utilized because supposedly stimulate the uterine contractions and the fact of an empty intestine facilitates the head descent. Also is believed that reduce the contamination and, consequently, the mother and the baby infection. On the other hand, the procedure is uncomfortable and present risks of intestinal lesion. It is supposed that the trichotomy reduces the infection and facilitates the suture, but there are no evidences favorable to this supposition. The women feel discomfort when the hair return to develop and the risk of infection do not reduce (OMS, 1996). In the studied population, it was not verified the utilization of these two techniques. The majority of the women had the habit to depilate at home, however, it could be observed in the medical records, the prescription of trichotomy. This fact shows that trichotomy takes part in the institution routine.

It is noteworthy that for all the women in observation, the following cares were accomplished during the labor and postpartum: the companion presence; hourly control of the fetal heart beat; emotional support and respect to privacy by the caregivers during the birth process; monitoring using the partograph; information and explanations required; non-utilization of invasive methods or pharmacologic to ease the pain; relaxing techniques; active manipulation of the fetus during the birth; sterilized material to the clamping of the umbilical cord; the placenta and membranes exam; the baby

hypothermia prevention; the use of the newborn identification wristband inside the delivery room; accomplishment of the skin-to-skin contact between mother and child during the first hour postpartum; support to the breastfeeding beginning during the first hour postpartum.

Among the relaxing techniques, 56% of the parturient were encouraged by the employees to do diaphragmatic breath during the contraction phase, to take warm shower, to sit on the ball and walk around. These are important alternative methods, because, for example, the deambulation and to sit on the ball, help the fetal insinuation through the vaginal canal.

In relation to the frequent vaginal examination, particularly by more than one caregiver, was found in the observed women an index of 46%, fact which may be associated to the academic characteristic of the institution, which does not justify such conduct.

It was not verified the restriction of food and liquids during the labor. Among the observed parturient, 77% received offer of liquid during the pre-partum.

According to Melo and Peracoli (2008), the labor can persist for hours and demand huge quantities of energy. Because its unpredictable duration, it is necessary to replace the sources of energy, in order to guarantee the fetal and maternal well-being. The fasting reduces the available carbohydrate for the labor strength, inducing the organism to metabolize fat to generate energy; consequently, the blood availability of amino acids for mother and the fetus is reduced, while the fatty acids and ketones are increased.

It was not observed any case of routine intravenous infusion. The intravenous infusions of routine interfere with the natural process and restrict the woman freedom of movements. Even the routine prophylactic insertion of an intravenous cannula is an invite to unnecessary interventions.

Among the clearly useful procedures which should be encouraged, and were not observed in the study, is the mother right of choice on the preferred position of delivery, only 3% of the parturient had this opportunity. Despite the physical structure to be appropriate, with 3 equipped delivery rooms, was found in the observed maternity, only one bed PPP (pre-partum, childbirth and puerperium) which allows the woman support during this three periods, and which presents items that facilitates the labor and the professional cares, such as electric drive to height adjustments, headboard, Trendelenburg system and reverse, which perform the total movement of the bed. The bed has a differentiated footrest, with opening and inclination adjustable to

the anatomy of different patients, providing comfort to all the childbirth maneuvers. Other differential that the bed possesses is the cardio respiratory arrest system, which allows acting quickly in cardiac maneuvers, being also prepared to emergencies (COFEN, 2007).

Some results of scientific studies show advantage of the vertical position or the lateral tilt over the dorsal position (horizontal decubitus), among them: less discomfort and pull difficulties, less intense pains and less risk of vaginal or perineal trauma and incision infections. Also, it were observed low duration of the expulsive period and better neonatal results with proportion of the Ápgar index lower than 7 (Ápgar < 7) (BRASIL, 2001).

The nipple stimulation to increase the uterine contractions during the placenta expulsion was not performed. This practice is part of the category C of the WHO recommendations for the childbirth (OMS, 1996), procedure without enough evidence to foster a recommendation and which should be used with caution, while further researches do not justify its evidence.

All the newborns were put into contact with their mothers for the breastfeeding during the first hour postpartum. Positive fact, because the sooner this happens, the better will be the breastfeeding benefits and lower the risk of early weaning, because mother and newborn are alert and interacting, resulting that the skin-to-skin contact favors the natural and spontaneous feed within the first hour of life.

According to Carvalho and Tamez (2005), part of the verified problems with the feed would not exist if more humanized postures, attitudes and conducts were used, highlighting, among them, the active and oriented participation of accompanying people during the prenatal and childbirth, and the restriction on the use of unnecessary and abusive interventions, such as elective cesarean.

The care with the manner we born and with the loving ties mother-baby can propitiates the building of a more loving society, less destructive and of higher respect by the human beings and the nature (ODENT, 2002).

Conclusion

In summary, with the set of humanized measures analyzed in this study, it was noticed that the observed maternity ward gives continuity to the humanized assistance. However, some cares need to be implemented such as the mother's right to chose the preferred position for delivery, which is very important and can influences the birth process,

improving the comfort and helping during the times of pain. Likewise, submit the parturient to repeated vaginal examination, besides being extremely inconvenient, can facilitates the possibility of puerperal infection and it is a not justified care, once the partograph use facilitates the effective control of the labor evolution.

It can be considered that the set of humanizing measures implemented has discouraged the medicalized childbirth, which is seen as artificial, and encouraged the biomechanical practices and interventions during the labor, considered most appropriate to the physiology, and then, less aggressive and more natural.

References

- BRASIL-Ministério da Saúde. Portaria GM/MS n. 569, de 1 de junho de 2000. **Dispõe sobre o programa de humanização no pré-natal e nascimento, no âmbito do sistema único de saúde**. 2000. Available from: <<http://www.dtr2001.saude.gov.br/sas/portarias/port2004/PT-766.htm>>. Access on: June 23, 2009.
- BRASIL-Ministério da Saúde. Secretaria de políticas de saúde. **Parto, aborto e puerpério: assistência humanizada à mulher**. Brasília: Ministério da Saúde, 2001.
- BRASIL. Lei n. 11.108, de 7 de abril de 2005. Altera a Lei n. 8.080, de 19 de setembro de 1990, **para garantir às parturientes o direito à presença de acompanhante durante o trabalho de parto, parto e pós-parto imediato, no âmbito do Sistema Único de Saúde (SUS)**. Publicado no Diário Oficial da União de 8 de abril de 2005. Available from: <http://www.planalto.gov.br/CCIVIL_03/_Ato2004-2006/2005/Lei/L11108.htm>. Access on: Apr. 5, 2009.
- BRAZELTON, T. B. **O desenvolvimento do apego: uma família em formação**. Tradução de Batista D. Porto Alegre: Artes Médicas, 1988. p. 15-50.
- BÍBLIA SAGRADA. **Livro de Gênesis** (3:1-16). São Paulo: Editora Ave-Maria, 1999.
- CARVALHO, M. L. O renascimento do parto e do amor. **Revista Estudos Feministas**, v. 10, n. 2, p. 521-523, 2002.
- CARVALHO, M. R.; TAMEZ, R. N. **Amamentação: bases científicas**. 2. ed. Rio de Janeiro: Guanabara Koogan, 2005.
- CHARLES, A. G.; NORR, K. L.; BLOCK, C. R.; MEYERING, S.; MEYER, E. Obstetrics and psychological effects of psychoprophylactic preparation for childbirth. **American Journal of Obstetrics Gynecology**, v. 131 n. 1, p. 44-52, 1978.
- COFEN-Conselho Federal de Enfermagem. **Hospitais têm até dezembro para adaptar-se às normas de incentivo ao parto humanizado**. 2007. Available from: <<http://www.portalcofen.gov.br/2007/materias.asp?ArticleID=7890§ionID=38>>. Access on: Out. 15, 2009.
- GAMA, S. G. N.; SZWARCOWALD, C. L.; LEAL, M. C. Gravidez na adolescência como fator de risco para baixo peso ao nascer no Município do Rio de Janeiro, 1996 a 1998. **Revista Saúde Pública**, v. 35, n. 1, p. 74-80, 2001.
- GIL, A. C. **Métodos e técnicas de pesquisa social**. São Paulo: Atlas, 1999.
- GOLDENBERG, P.; FIGUEIREDO, M. C. T.; SILVA, R. C. Gravidez na adolescência, pré-natal e resultados perinatais em Montes Claros, Minas Gerais, Brasil. **Caderno de Saúde Pública**, v. 21, n. 4, p. 1077-86, 2005.
- HODNETT, E. D.; GATES, S.; HOFMEYER, G. J.; SAKALA, C. Continuous support for women during childbirth. **Cochrane Database System Review**. v. 3, CD003766, 2007. Available from: <<http://www.ncbi.nlm.nih.gov/pubmed/12917986.1>>. Access on: Apr. 5, 2009.
- MAZZINI, M. L. H.; ALVES, Z. M. M. B.; SILVA, M. R. S.; SAGIM, M. B. Mães adolescentes: a construção de sua identidade materna. **Ciência, Cuidado e Saúde**, v. 7, n. 4, p. 493-502, 2008.
- MELO, C. R. M.; PERACOLI, J. C. Mensuração da energia despendida no jejum e no aporte calórico (mel) em parturientes. **Revista Latino-americana de Enfermagem**, v. 15, n. 4, p. 612-617, 2008.
- NARCHI, N. Z.; FERNANDES, R. A. Q.; DIAS, L. A.; NOVAIS, D. H. Variáveis que influenciam a manutenção do aleitamento materno exclusivo. **Revista da Escola Enfermagem da USP**, v. 43, n. 1, p. 87-94, 2009.
- ODENT, M. **A cientificação do amor**. Florianópolis: Saint Germain, 2002.
- OMS-Organização Mundial da Saúde. **Maternidade Segura. Assistência ao parto normal: um guia prático**. Brasília: Ministério da Saúde, 1996.
- OSAVA, R. H. Parto humanizado: importante mudança para a saúde. **Nursing**, v. 57, n. 6, p. 10-11, 2003.
- OSIS, M. J. D.; DUARTE, G. A.; PÁDUA, K. S.; HARDY, E.; SANDOVAL, L. E. M.; BENTO, S. F. Aleitamento materno exclusivo entre trabalhadores com creche no local de trabalho. **Revista de Saúde Pública**, v. 38, n. 2, p. 172-179, 2004.
- PICCININI, C. A.; MARIN, A. H.; ALVARENGA, P.; LOPES, R. C. S.; TUDGE, J. R. Responsividade materna em famílias de mães solteiras e famílias nucleares no terceiro mês de vida da criança. **Estudos de Psicologia**, v. 12, n. 2, p. 109-117, 2007.
- QUEIROZ, M. V. O.; SILVA, A. O.; JORGE, M. S. B. Cuidado de enfermagem à puérpera em unidade de internação obstétrica: perspectiva de humanização. **Revista Baiana de Enfermagem**, v. 18, n. 1/2, p. 29-37, 2003.
- SILVA, M. B.; GRIGOLO, T. M. **Metodologia para iniciação científica à prática da pesquisa e da extensão II**. Caderno Pedagógico. Florianópolis: Udesc, 2002.

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