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OUTLINING THE EPIDEMIOLOGICAL PROFILE OF PUERPERAL WOMEN AND NEWBORN INFANTS

DELINEAMENTO DO PERFIL EPIDEMIOLÓGICO DE PUÉRPERAS E RECÉM-NASCIDOS

DISEÑO DEL PERFIL EPIDEMIOLÓGICO DE PUÉRPERAS Y RECIÉN NACIDOS Laura Helena Gerber Franciscatto¹, Marília Della Pasqua², Greici Kelli Tolotti³, Caroline Rossetto⁴, Carla Argent⁵, Jaqueline Marafon Pinheiro⁶

ABSTRACT

Objective: outline the epidemiological profile of puerperal women and newborn infants. **Method:** this is an epidemiological, descriptive, retrospective, and documentary study, with a quantitative approach, carried out in a town in northern Rio Grande do Sul, Brazil, whose research environment was the Sector of Projects and Typing of the Municipal Health Council. We analyzed the live birth certificates (LBCs) of newborn infants, which also contain data related to the puerperal women, who live both in the urban and rural areas. Data refer to the period from January 1, 2008, to January 1, 2010, totaling 556 LBCs. The study was approved by the Research Ethics Committee of the Integrated Regional University of High Uruguay and Missions (URI), under the CAEE 011-12HPB. **Results:** the region has characteristics such as an adequate number of prenatal care consultations, high rate of caesarean sections, and prevalence of housewife mothers. **Conclusion:** this study aims to contribute to improve care planning within the maternal and child health field. **Descriptors:** Epidemiology; Postpartum Period; Puerperal Woman; Newborn Infant.

RESUMO

Objetivo: delinear o perfil epidemiológico de puérperas e recém-nascidos. **Método:** trata-se de estudo epidemiológico descritivo, retrospectivo e documental, com abordagem quantitativa, realizado em município do norte do Rio Grande do Sul, cujo ambiente de pesquisa foi o Setor de Projetos e Digitação da Secretaria Municipal de Saúde. Foram analisadas as declarações de nascido vivo (DNs) dos recém-nascidos, que também contêm dados relativos às puérperas, que residem tanto na zona urbana como na rural. Os dados referem-se ao período de 1º de janeiro de 2008 a 1º de janeiro de 2010, totalizando 556 DN. O estudo foi aprovado pelo Comitê de Ética em Pesquisa da Universidade Regional Integrada do Alto Uruguai e das Missões (URI), sob o CAEE n. 011-12HPB. **Resultados:** a região apresenta como características um número adequado de consultas pré-natais, alto índice de partos cesarianos e prevalência de mães do lar. **Conclusão:** este estudo almeja contribuir para aprimorar o planejamento do cuidado no âmbito da saúde materno-infantil. **Descritores:** Epidemiologia; Período Pós-Parto; Puérpera; Recém-Nascido.

RESUMEN

Objetivo: diseñar el perfil epidemiológico de puérperas y recién nacidos. **Método:** esto es un estudio epidemiológico descriptivo, retrospectivo y documental, con abordaje cuantitativo, realizado en un municipio del norte de Rio Grande do Sul, Brasil, cuyo ambiente de investigación fue el Sector de Proyectos y Digitación de la Secretaría Municipal de Salud. Se analizaron los certificados de nacido vivo (CNVs) de los recién nacidos, que también contienen datos acerca de las puérperas, que residen tanto en la zona urbana como en la rural. Los datos se refieren al período del 1 de enero de 2008 al 1 de enero de 2010, con un total de 556 CNVs. El estudio fue aprobado por el Comité de Ética en Investigación de la Universidad Regional Integrada del Alto Uruguay y de las Misiones (URI), bajo el CAEE 011-12HPB. **Resultados:** la región tiene características como un número adecuado de consultas prenatales de control, elevada tasa de operaciones cesáreas y prevalencia de madres amas de casa. **Conclusión:** este estudio tiene como objetivo contribuir a mejorar la planificación de la atención en el ámbito de la salud materna e infantil. **Descriptores:** Epidemiología; Período De Postparto; Puérpera; Recién Nacido.

¹Nurse. MS in Genetics and Applied Toxicology. Professor at the Integrated Regional University of High Uruguay and Missions (URI). Frederico Westphalen (RS), Brazil. Email: laura@uri.edu.br; ²Clinical nurse in primary health care unit. Frederico Westphalen (RS), Brazil. Email: marilia.dp@hotmail.com; ³Undergraduate Nursing student at URI. Frederico Westphalen (RS), Brazil. Email: greici.kellitolotti@hotmail.com; ⁴Undergraduate Nursing student at URI. Frederico Westphalen (RS), Brazil. Email: enfrossetto@gmail.com; ⁵Nurse. MS in Nursing. Professor at URI. Frederico Westphalen (RS), Brazil. Email: carlaa@uri.edu.br; ⁶Supervisor nurse at URI. MS Education student at URI. Frederico Westphalen (RS), Brazil. Email: jaquemarafon@yahoo.com.br.

INTRODUCTION

In order to be able to outline the epidemiological profile of puerperal women and their newborn infants, we must understand in what context this period takes place, since we observe many changes in it, not only biological, but also with a psychological and emotional nature. Puerperium is the period when a woman's body returns to her pre-pregnancy status and it starts at the first hour after delivery of the placenta; its ending is unpredictable, since it is related to the breastfeeding process.¹⁻²

Characterizing the epidemiological profile of a puerperal woman and her newborn infant constitutes an instrument for obtaining data that can assist to plan actions to provide improvements in the quality of care aimed at this social group. Given the numerous variables interfering with the health-illness process, some understanding on epidemiology, in a population to be studied, makes a more comprehensive care available. Conceptualizing epidemiology requires knowledge, because it is a dynamic theme and its objective is complex, thus, we define epidemiology as: a science that studies the health-illness process in human collectivities, analyzing the distribution and determining factors of illnesses, damages to health, and events associated with collective health, proposing specific measures for prevention, control, or eradication of diseases, and constructing indicators able to support planning, management, and assessment of routine actions, in line with the health promotion policies.³

The International Epidemiological Association uses in its epidemiological studies three stages of analysis and it seeks to describe the distribution and magnitude of health problems among human populations, as well as provide crucial data for planning, deploying, and assessing actions for prevention, control, and treatment of diseases, thus, it can set study priorities and identify etiological factors concerning the genesis of illnesses.⁴

Caring is "experienced as a process that involves a network of institutions and services, in order to achieve impact on the various circumstances of the living and growing process of the newborn infant and the puerperal woman".⁵ This is a doing, an integrated reasoning between service and team, and not just the task of a professional or a category alone.

The health status of the puerperal woman and the newborn infant unquestionably

depends on the monitoring and care required within the gestational period. Therefore, the Community Health Workers' Program (PACS), which, by means of the community health worker (ACS), develops health prevention and promotion at various locations, and also the Family Health Strategy (FHS), which is included into the community, thus strengthening this chain of actions, facilitating and enhancing the care for a pregnant woman and monitoring by the entire health care team, reducing pre- and postpartum complications for the puerperal woman and the newborn infant.⁶

In order to offer a good quality care to the pregnant woman, newborn infant, and puerperal woman, it is essential that the nursing professional use data on these patients, for further analysis and action planning, and, for this, it is possible to use the live birth certificate (LBC), and the Information System on Live Births (SINASC), where there will be data of great relevance with regard to the puerperal woman (pregnancy and delivery) and on the newborn infant's early hours of life.

SINASC has as its instrument the LBC, which contains some sociodemographic information on mothers, besides other variables related to pregnancy, delivery, and live newborn infants' conditions, allowing us to know the epidemiological profile of maternal and child conditions at different locations and enabling the health care system to make available policies and actions aimed at the actual needs and demands of each population group.⁷

SINASC aims to gather epidemiological information concerning reported births over the national territory. Its benefits are providing means to interventions related to women and child's health at all levels of the Unified Health System (SUS) and, also, monitoring the evolution of the historical series of SINASC allows us to identify intervention priorities, something which contributes to an effective system's improvement.⁸

With all data related to the newborn infant and the puerperal woman, we establish a research and information link with regard to the gestational period, as well as maternity, birth, delivery, the immediate puerperium, thus, it is possible to guarantee immediate care for the newborn infant, in order to offer a good quality and humanized care, because all information are relevant and need to be studied and presented to the population using the health care services.

Knowledge on the primary health issues, particularly within this group, deserves due

attention by nursing professionals, since this is a crucial period for the lives of those involved, and monitoring and early intervention decrease possible complications. This study contributes to construct the epidemiological profile of the population of puerperal women and newborn infants in Brazil, especially in the northern state of Rio Grande do Sul, Brazil.

Given the above, this study aims to outline the epidemiological profile of puerperal women and their newborn infants.

METHOD

This is a descriptive, epidemiological, retrospective, and documentary study, with a quantitative approach. The study was conducted in a town located in the northern state of Rio Grande do Sul, Brazil, and its research environment was the Sector of Projects and Typing of the Municipal Health Council. This research was carried out within the period from the 2nd half of 2011 and the 1st half of 2012. We analyzed the LBCs of newborn infants, which also contain data related to the puerperal women, who live both in urban and rural areas of the town under study; we analyzed data referring to the period from January 1, 2008, to January 1, 2010, totaling 556 LBCs.

The selection of variables chosen for the analysis was categorized into two groups:

- Sociodemographic, reproductive, and clinical characteristics of the mother: mother's age (complete years); marital status (married or single); parity; number of prenatal consultations of control; type of delivery (vaginal or cesarean section); and profession.
- Clinical characteristics of the newborn infant: birth weight ($\leq 2,500$ kg; 2,501-2,999 kg; $\geq 3,999$ kg, corresponding to small for gestational age, appropriate for gestational age, and large for gestational age); Apgar score at the 1st and 5th minutes of life (0-6; 7-8; 9-10); gestational age (< 37 weeks of gestation; 37-42 weeks of gestation; ≥ 42 weeks of gestation, corresponding to preterm, term, and post-term); head circumference; chest girth; evidenced malformations (yes; no); and length.

Data were collected from LBCs, which are monthly sent by the nurse in charge of the maternity unit of the town's hospital, and they are received by professional in charge of feeding in SINASC. Data collection was conducted using a standardized form and data

were transferred to an electronic spreadsheet in the software *Microsoft Excel*, 2000.

This study was approved by the Research Ethics Committee of the Integrated Regional University of High Uruguay and Missions (URI), under the CAEE 011-12HPB.

RESULTS

For conducting the survey, a sample of 556 LBCs was used and all puerperal women and newborn infants lived in the town under study. All LBCs were analyzed, even those that were not completely filled. LBCs, in most cases, were filled by health professionals, among them, nursing technicians, nursing assistants, and nurses. Out of the 556 LBCs evaluated, 38% were not adequately filled and 62% were duly filled.

When checking data, we observed that maternal age had a large variation, 61.87% were at the age group from 21 to 34 years. Puerperal women < 20 years showed the percentage of 23.93% and the age group that obtained the lowest percentage was > 35 years, with 13.30%. The lowest age analyzed in the study at which pregnancy developed was 13 years and the highest age was 42 years.

As for maternal educational status, data observed show that 3.59% of women had from 1 to 3 years of study, 33.63% had from 4 to 7 years of study, and 39.38% had from 8 to 11 years of study; it was also observed that 24.48% had ≥ 12 years of study, and 1.07% of the data were not specified.

A variety of occupations among mothers participating in the research was shown; 9% are farmers, 2.87% are secretaries, 2.87% are sellers, 12% are housemaids, 2.87% are production assistants, 5.39% are teachers, 43.70% are housewife mothers, 5.75% are students, 16.18% have other functions, and 8.99% of LBCs were not specified with regard to this item.

Regarding the marital status of women, we could see that 50.35% were single, in turn, 46.76% were married, 0.35% was widow, and other data, such as separated women and those not specified, totaled 2.51%.

As for the number of prenatal consultations of control, 83.81% attended ≥ 7 consultations and 14.56% attended from 4 to 6 consultations. Concerning gestation weeks, we identified 5.40% between 22 and 36 weeks. In turn, most pregnant women obtained 94.60% between 37 and 42 gestation weeks.

Considering data on the type of delivery, it was observed that cesarean section deliveries represented the vast majority (67%) when

compared to those through the vagina (32.5%).

In terms of the live birth of other children of women participating in the research, we obtained an average of 1.07 live births per woman, in turn, concerning the average of abortions in previous pregnancies, we obtained an average of 0.13 abortions per woman.

Regarding the skin color declared by the puerperal women, 91% claimed to be white-skinned, in turn, 0.5% claimed to be black-skinned, and 0.5% claimed to be mulatto. It was also noticed that 8% of LBCs were not properly filled with regard to mother's skin color.

The percentage of newborn infants weighing $\leq 2,500$ kg was 7.91%, in turn, that of newborn infants weighing between 2,501 to 2,999 kg was 87.05%, and that of newborn infants weighing $\geq 3,999$ kg was 4.13%.

Regarding the Apgar score at the 1st and 5th minutes of life, it was found out that 73.56% obtained 9 and 9 at the 1st and 5th minutes, respectively, and 26.44% obtained 10 and 10 at the 1st and 5th minutes, respectively.

As for congenital malformations, 80.21% showed no evidence of malformation, in turn, in 1.97% there was evidence of some congenital malformation, and in 18.34% of cases the LBCs were not fulfilled.

In terms of newborn infants' head circumference, we found out unique variables, the highest percentage was 60% with a cephalic measure between 31 and 35 cm, in turn, 27 to 30 cm was the lowest percentage, corresponding to 1%, another percentage observed was 18% in the variables 36 to 39 cm, and we also obtained 21% of LBCs without filling the newborn infant's head circumference.

When checking the head circumference, the highest percentage was 63%, observed in the variable 31 to 35 cm, the second highest percentage was 11%, in the variable 24 to 30 cm, and 6% was the lowest percentage, between 36 and 38 cm, and 20% were not specified in the LBCs.

Regarding the newborn infants' length, the highest percentage found was 65% in the variable between 46 and 50 cm, in turn, the second highest percentage was 10% in the variable 51 to 55 cm, we also obtained 6% related to the variables 41 to 45 cm, and 18% were not included into the LBCs.

DISCUSSION

It is known that LBC is a document standardized by the Ministry of Health, filled

throughout the national territory, for all children born alive, indispensable for civil registration, where it serves as a source of data for further analysis on the situation of the mother, pregnancy, delivery, and the newborn infant, which allow conducting descriptive epidemiology studies, highlighting that the correct completion of the instrument contributes to improve data sources on birth and mortality, as well as the sociodemographic estimates.⁹ In a study, it was found out that there were difficulties in the information production cycle, in the data collection steps, with the identification of fields with ignored or absent content; problems were also identified in conveying the records to the information systems.¹⁰

This study corroborates our survey, since a large percentage (38%) of data were not filled or they were ignored by the professional who filled the form. In the proposed study, it was observed that the highest prevalence of maternal age was between 21 and 34 years, followed by women < 20 years and then women > 35 years. It is worth stressing that maternal age is directly correlated with pregnancy development.

From the same perspective, we can see that in a study conducted in the city of Aracaju, Sergipe, Brazil, it was shown that the age group from 20 to 36 years prevailed, followed by women < 19 years and women > 36 years; this way, the same author claims that the earlier the pregnancy, or the later, the greater the risks for possible complications during pregnancy, delivery, and perinatal period.¹¹

Pregnancy during adolescence is a fact that has taken place in a more significant way in our society. In Brazil, every year, about 1 million adolescents between 10 and 19 years go through this period, something which corresponds to 20% of total live births in the country.¹²

The highest educational status level corresponded to women who have studied from 8 to 11 years (39.38%), and the educational status may be regarded as an indicator of social status. A higher level of education facilitates access to employment and, as a consequence, to more favorable socioeconomic conditions.¹¹

In the Notebook of Primary Care to Low Risk Prenatal Monitoring prepared by the Ministry of Health, in an item related to risk factors during pregnancy, poor education stands out, i.e. < 5 years of regular study. In this research, we observed that 33.63% of women studied from 4 to 7 years, indicating

that a portion of the sample analyzed falls into a risk situation.¹³

Given this, in the proposed study, we observed that most women participating in the research had various functions, but a large proportion of them were housewives. In a study, similar data are demonstrated “in the item profession, 70% of them (175) do not have stable professions, i.e. they describe themselves as housewives. Only 30% (76) have defined professions registered in the employment record book”.¹⁴

Regarding marital status, data obtained on single mothers were 50.35% and those on married mothers were 46.76%, showing a high percentage in relation to single mothers. Unstable marital status is a relevant aspect, because, in addition to decreased psychological support, father absence, usually, brings lower economic stability and it can constitute a risk factor.¹³

Concerning the number of consultations, the highest percentage of women (83.81%) attended ≥ 7 prenatal consultations of control, a very significant information, because it demonstrates the importance attributed by the population of pregnant women, paying attention to possible complications deriving from the puerperium and, especially from the gestational period.

Nationally, it is observed that the proportion of pregnant women who attended ≥ 7 prenatal consultations of control increased from 46% in 2000 to 61% in 2010, with important regional differences: 75.5% in the South and 37% in the North. There is a need for attending a minimum of 6 consultations to achieve a good quality during the gestational period, providing ideal conditions to the subsequent periods in the gravidic cycle.¹⁵

A large percentage of women (94.60%) developed their pregnancy over 37 to 42 weeks, showing that most of them have led pregnancy to a favorable period to fetal growth. It is worth noticing that the gestational weeks are directly related to other factors of fetal growth and, as the number of gestational weeks increases, the possibility of complications for the mother and newborn infant decreases; a variable that is directly related to low birth weight is the length of pregnancy. Usually, prematurity is associated with low birth weight and, when pregnancy lasts ≤ 22 weeks, birth weight is extremely low.¹⁶

Regarding the type of delivery, in the town of Caxias do Sul, Rio Grande do Sul, Brazil, a study has shown that 20.1% of babies were delivered by caesarean section.¹⁷ In contrast, our research showed that most women (67%)

underwent a cesarean section, in disagreement with what the World Health Organization (WHO) recommends, being ideal a rate of cesarean sections between 10% and 15%. However, what has been observed are universal rates, usually, higher even in countries considered as developed.¹⁸⁻¹⁹

In terms of the average rate of live births, we obtained an average of 1.07 children per woman and the average rate of abortions was 0.13 per woman. This demonstrates an agreement with the national index, where maternal fertility declined a lot, and, compared to the number of births of children, the average abortion rate is considerably low.

It is noteworthy that a study conducted by the Ministry of Health has obtained data that agree with our survey, since in the past three decades there was a major drop in the fertility rate, average number of live births per woman, in the country, from 4.3 in 1980 to 1.8 in 2006, ranging between 2.3 children in the North and 1.7 children in the South and Southeast. This generates a situation of acute inequality in the country; while women > 12 years of study have, on average, 1 child, mothers with no formal education have 4.2 children.¹⁵

The skin color declared by most mothers was white and this is due to a local reality, as the ethnic groups from northern Rio Grande do Sul and the town under study mostly belong to cultures with a predominance of white skinned people. More than 85% of the population in the town under study came from Italian, German, Polish, Portuguese-Brazilian ethnic groups, among others, with similar features.²⁰

In the survey, newborn infants' low weight was a poorly observable information, because, by analyzing the 556 LBCs, we obtained 7.91% of newborn infants with low birth weight.

In Brazil, 7.2% of live births were preterm in 2010, ranging between 5.6% and 8.2% in the North and Southeast, respectively, and 0.8% were term. Low birth weight ($< 2,500$ kg) is the most important isolated risk factor for child mortality.¹⁵

By observing the Apgar score analyzed at the 1st and 5th minutes of life, this survey found the score 9-9 to 10-10, respectively.

Clinical evaluation of the newborn infant was proposed by Virginia Apgar in 1953 and 1958, and it has been very useful in judging the need for her/his resuscitation, when applied at 1 minute of life and again at 5 minutes.²¹⁻²²

The three results obtained in the survey, Apgar score, birth weight, and gestational

age, are highly associated with survival of the newborn infant and a better development, this because the combination of these three factors, when within parameters regarded as normal, demonstrates a good epidemiological indicator found in the survey.

It is noteworthy that, during the survey, in the item related to malformations, only 1.97% of newborn infants had some malformation, which were microcephaly, encephalocele, multiple genitals, and also multiple hands and feet, lump on the front of ear canal, malformation in the face, hyperplasia of the mandible, skull disproportion, and a vast majority of newborn infants (80.21%) showed no malformation; it is noteworthy that data shown in the study, referring to the types of malformations, were filled in the LBCs the same way they are shown in the study.

Around 3 million births occur annually in Brazil, and it is estimated that at least 60,000 newborn infants carry some malformation. This is an information contained in the LBCs and, often, professionals do not give due importance to the filling of such data, because the most severe lead to fetal loss, while others are difficult to diagnose and they can fail to be noticed at birth.²³

Several studies found out some negligence with regard to the correct completion of LBCs as for congenital malformations, a failure related to lack of professional qualification.²⁴

Concerning the measurement of newborn infants' head circumference, chest girth, and height, we found out: head circumference from 31 to 35 cm, whose average was 34.3 cm; it is worth stressing that the measurement of head circumference is very important, because it can indicate on an early basis abnormalities that are associated with macrocephaly or microcephaly.

As reported by the Ministry of Health, measuring the head circumference is important to evaluate the head and brain size; studies by the National Center for Health Statistics conducted in 1977 describe that term newborn infants have from 33 cm to 36 cm at birth.²⁵

In turn, concerning the chest girth, we found out from 31 cm to 35 cm, with an average of 32.7. Regarding the newborn infants' height, the highest was from 46 cm to 50 cm. The vast majority of data was not properly specified in LBCs, something which becomes an unfavorable factor for the study.

When the newborn infant is born within the hospital unit, it is routine to check anthropometric measures, aiming to detect on an early basis the anomalies and their

treatment, besides assessing the prognosis. Due to such important objectives, they should be properly taken.²⁶

CONCLUSION

It was possible to observe that the number of prenatal consultations of control is characterized as a particular reality in the Brazilian South, because this is the region which has the highest rates of consultation, when compared to the other regions. This is a very significant finding, because it demonstrates greater adherence to prenatal care by pregnant women and greater population awareness. This way, there are less chances of having complications within the gestational period and postpartum, both for the mother and for the newborn infant. However, another finding that characterizes the South region is related to the type of delivery, with a higher rate of births through cesarean section, a finding in disagreement with what the WHO recommends.

This study outlined the population's epidemiological profile, thus contributing to planning and decision making aimed at improving the service and constituting a source of data for further studies within the maternal and child health field. For this, it is a must that the professionals in charge of filling LBCs are properly trained and that they give due importance to the correct completion of data; three of them (Apgar score, birth weight, and gestational age) are highly associated with newborn infant's survival and better growth. Likewise, in order to have some knowledge on maternal and child's epidemiological profile and plan according to the reality in the various regions of the country, the information system needs to be properly fed and updated.

REFERENCES

1. Souza KV, Cubas MR, Arruda DF, Carvalho PRQ, Carvalho CMG. A consulta puerperal: demandas de mulheres na perspectiva das necessidades sociais em saúde. *Rev gaúch enferm* [Internet]. 2008 [cited 2013 May 16];29(2):175-81. Available from: <http://seer.ufrgs.br/RevistaGauchaDeEnfermagem/article/view/5532>
2. Ministério da Saúde (Brasil) [Internet]. Pré-natal e puerpério: atenção qualificada e humanizada: manual técnico. 2005.
3. Rouquayrol MZ. Contribuição da epidemiologia. In: Campos, GWS, Minayo MCS, Akerman M, Drumond MJ, Carvalho YM, organizadores. *Tratado de saúde coletiva*. São Paulo: Hucitec, 2006, p. 321.

4. Rouquayrol MZ, Almeida Filho N. Epidemiologia e saúde. ed Medici: Rio de Janeiro, 1993.
5. Sousa FGM, Erdmann AL, Mochel EG. Modelando a integralidade do cuidado à criança na Atenção Básica de Saúde. Rev gaúch enferm [Internet]. 2010 [cited 2012 Jun 26];31(4):701-7. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1983-14472010000400013
6. Bezerra-Filho JG, Kerr-Pontes LRS, Barreto ML. Mortalidade infantil e contexto socioeconômico no Ceará, Brasil, no período de 1991 a 2001. Rev bras saúde matern infant [Internet]. 2007 [cited 2013 May 17];7(2):135-42. Available from: <http://www.scielo.br/pdf/rbsmi/v7n2/03.pdf>
7. Costa MCO, Santos CAT, Sobrinho CL, Freitas JO, Ferreira KASL. Indicadores materno-infantis na adolescência e juventude: sócio demográfico, pré-natal, parto e nascidos-vivos. J pediatric (Rio J) [Internet]. 2001 [cited 2012 August 16];vol. 77,nº3. Available from: <http://www.scielo.br/pdf/jped/v77n3/v77n3a15.pdf>
8. Ministério da Saúde (Brasil). Sistema de Informações sobre Nascidos Vivos - SINASC [Internet]. 2011 [cited 2013 May 17]. Available from: http://portal.saude.gov.br/portal/saude/visualizar_texto.cfm?idtxt=21379
9. Brasil. São Paulo (cidade). Secretaria Municipal da Saúde. Coordenação de Epidemiologia e Informação - CEInfo. Declaração de Nascido Vivo. Manual de preenchimento da Declaração de Nascido Vivo [Internet]. 2011 [cited 2013 May 16]. Available from: http://www.prefeitura.sp.gov.br/cidade/secretarias/upload/saude/arquivos/publicacoes/M anual_DN_02fev2011.pdf
10. Barbuscia DM, Rodrigues ALJ. Completude da informação nas declarações de nascido vivo e nas declarações de óbito, neonatal precoce e fetal, da região de Ribeirão Preto, São Paulo, Brasil, 2000-2007. Cad saúde pública [Internet]. 2011 [cited 2012 June 26];27(6):1192-200. Available from: <http://www.scielosp.org/pdf/csp/v27n6/16.pdf>
11. Santana AM, Almeida SMC, Prado LOM. Urgências/Emergências Obstétricas x Assistência ao pré-natal. Cadernos de Graduação - Ciências Biológicas e da Saúde [Internet]. 2010 [cited 2012 Jun 26];p.51. Available from: http://www.unit.br/Publica/2010-1/BS_URGENCIAS.pdf
12. Silva LA, Nakano MAS, Gomes FA, Stefanello J. Significados atribuídos por puérperas adolescentes à maternidade: autocuidado e cuidado com o bebê. Texto & contexto enferm [Internet]. 2009 [cited 2013 June 05];18(1):48-56. Available from: <http://www.scielo.br/pdf/tce/v18n1/v18n1a06.pdf>
13. Ministério da Saúde (Brasil) [Internet]. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Atenção ao pré-natal de baixo risco / Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. 2012 [cited 2013 May 16]. Available from: http://189.28.128.100/dab/docs/publicacoes/geral/caderno_atencao_pre_natal_baixo_risco.pdf
14. Ravelli APX. Consulta puerperal de enfermagem: uma realidade na cidade de Ponta Grossa, Paraná, Brasil. Rev gaúch enferm [Internet]. 2008 [cited 2013 May 16];29(1):54-9. Available from: <http://seer.ufrgs.br/RevistaGauchadeEnfermagem/article/view/5264/2998>
15. Ministério da Saúde (Brasil) [Internet]. Secretaria de Atenção à Saúde Departamento de Ações Programáticas Estratégicas. Atenção à saúde do recém-nascido. Guia para profissionais de saúde - Cuidados gerais. 2012 [cited 2013 May 15];p.14-5. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/atencao_saude_recem_nascido_profissionais_v1.pdf
16. Ministério da Saúde (Brasil) [Internet]. Instituto Brasileiro de Geografia e Estatística. Indicadores Sociodemográficos e de Saúde no Brasil. 2009 [cited 2013 May 16]. Available from: http://www.ibge.gov.br/home/estatistica/populacao/indic_sociosaude/2009/default.shtm
17. Barbastefano PS, Girianelli VR, Vargens OMC. O acesso à assistência ao parto para parturientes adolescentes nas maternidades da rede SUS. Rev gaúch enferm [Internet]. 2010 [cited 2012 June 11];31(4):708-14. Available from: <http://seer.ufrgs.br/RevistaGauchadeEnfermagem/article/view/11929>
18. Mandarino NR, Chein MBC, Monteiro FCJ, Brito LMO, Lamy ZC, Nina VJS et al. Aspectos relacionados à escolha do tipo de parto: um estudo comparativo entre uma maternidade pública e outra privada, em São Luís, Maranhão, Brasil. Cad saúde pública [Internet]. 2009 [cited 2013 May 16];25(7):1587-96. Available from: <http://www.scielo.br/pdf/csp/v25n7/17.pdf>

19. Associação Nacional de Saúde Suplementar. Diretrizes e iniciativas em prol do parto normal.
20. Ferigollo WA. Rostos e Rastros no Barril 1954 - 2004. ed Pluma: Frederico Westphalen; 2004.
21. Oliveira TG, Freire PV, Moreira FT, Moraes JSB, Arrelaro RC, Rossi S et al. Escore de Apgar e mortalidade neonatal em um hospital localizado na zona sul do município de São Paulo. Einstein (São Paulo) [Internet]. 2012 [cited 2013 May 15];10(1):22-8. Available from:
http://www.scielo.br/pdf/eins/v10n1/pt_v10n1a06.pdf
22. Apgar V. A proposal for a new method of evaluation of the newborn infant. Curr Res Anesth Analg. 1953;32(4):260-7.
23. Luquetti DV, Koifman RJ. Qualidade da notificação de anomalias congênitas pelo Sistema de Informações sobre Nascidos Vivos (SINASC): estudo comparativo nos anos 2004 e 2007. Cad saúde pública [Internet]. 2010 [cited 2012 June 28];26(9):1756-65. Available from:
<http://www.scielo.br/pdf/csp/v26n9/09.pdf>
24. Silva RP, Caires BR, Nogueira DA, Moreira DS, Gradim CVC, Leite EPRC. Prematuridade: características maternas e neonatais segundo dados do sistema de informações sobre nascidos vivos. J Nurs UFPE on line [Internet]. 2013 [cited 2013 June 28];7(5):1349-55. Available from:
http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewFile/4363/pdf_2507
25. Brasil. Ministério da Saúde. Secretaria de Políticas Públicas. Departamento de Atenção Básica. Saúde da criança: acompanhamento do crescimento e desenvolvimento. Secretária de Políticas de Saúde [Internet]. 2002 [cited 2013 June 05];40-2. Available from:
http://bvsms.saude.gov.br/bvs/publicacoes/crescimento_desenvolvimento.pdf.
26. Mota M, Melo A, Burak C, Daltro C, Rodrigues B, Lucena R. Antropometria craniana de recém-nascidos normais. Arquivos de neuro-psiquiatria [Internet]. 2004 [cited 2012 June 17];62(3):626-9. Available from:
http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0004-282X2004000400011

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Corresponding Address

Laura Gerber Franciscatto
Rua Presidente Kennedy, 885 / Ap. 101
Bairro Centro
CEP 98400-000 — Frederico Westphalen (RS),
Brazil