THE PROFILE OF WOMEN WHO HAVE EXPERIENCED CESAREAN SECTION AND OBSTETRIC CARE AT A PUBLIC MATERNITY HOSPITAL IN RIBEIRAO PRETO

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ABSTRACT: The present paper presents the social and obstetric profile of women undergoing cesarean childbirth at a public maternity hospital in the interior of São Paulo state. This is a quantitative, retrospective, descriptive study performed using documental research. The collected data refer to the period between July and December 2005, and between January and June 2006. A total of 670 records were reviewed. A 23% rate of cesarean births was identified at the institution studied during the aforementioned period. The studied population was characterized as having a low level of education, living in a common-law relationship, and not having a paid occupation. The main indications for cesarean sections were iterativity and acute fetal distress. The findings revealed an emphasis on obstetric nursing in the low-risk normal childbirth scenario, considering the non-interventionist character inherent to their education and training.

DESCRIPTORS: Labor, obstetric. Cesarean section. Obstetrical nursing.

PERFIL DAS MULHERES SUBMETIDAS À CESAREANA E ASSISTÊNCIA OBSTÉTRICA NA MATERNIDADE PÚBLICA EM RIBEIRÃO PRETO

RESUMO: O artigo apresenta o perfil social e obstétrico das mulheres submetidas ao parto cesárea em uma maternidade pública do interior do Estado de São Paulo. Trata-se de estudo quantitativo, retrospectivo, do tipo descritivo, com pesquisa documental. Os dados coletados referem-se ao período entre os meses de junho e dezembro de 2005, e janeiro a junho de 2006. Foram consultados 670 prontuários. A taxa de parto cesárea na instituição-campo foi calculada em 23% para o período supracitado. Foram características da população estudada a baixa escolaridade formal, a união consensual e o trabalho não remunerado. As principais indicações para as cesarianas foram a iteratividade e o sofrimento fetal agudo. Como desdobramento dos achados está a ênfase pela valorização da enfermagem obstétrica no cenário de atendimento ao parto normal de baixo risco, considerando seu caráter não-intervencionista inerente à sua formação.

DESCRITORES: Trabalho de parto. Cesárea. Enfermagem obstétrica.

PERFIL DE LAS MUJERES SOMETIDAS AL PARTO POR CESÁREA Y LA ATENCIÓN OBSTÉTRICA EN UNA MATERNIDAD PÚBLICA DE RIBEIRÃO PRETO

RESUMEN: El artículo presenta el perfil social y obstétrico de las mujeres sometidas a cesárea en un hospital público en el interior del estado de São Paulo. Se trata de un estudio cuantitativo, retrospectivo de tipo descriptivo con pesquisa documental. Los datos recolectados se refieren al período comprendido entre junio y diciembre de 2005 y enero-junio de 2006. Fueron consultado 670 registros. La tasa de cesárea en la institución de campo se calculó en 23% para el período antes mencionado. Características de la población estudiada fueron la baja escolaridad, el trabajo no remunerado y la unión consensual. Las principales indicaciones de cesárea fueron sufrimiento fetal y el antecedente de más de dos cesáreas. Se destaca la atención del parto normal bajo el reconocimiento de los cuidados de enfermería obstétrica en el contexto de la entrega normal de bajo riesgo, teniendo en cuenta su enfoque no intervencionista inherentes a su formación.

DESCRIPTORES: Trabajo de parto. Cesárea. Enfermería obstétrica.

INTRODUCTION

In 1985, the World Health Organization (WHO) determined that there is no justification for any region in the world to have cesarean childbirth rates over 10-15%, supporting the hypothesis that when this rate increases to more than 15%, the health risks overcome the benefits. Two decades later, however, the cesarean childbirth rates continue to contradict the WHO recommendation, in developed as well as in developing countries.[1]

Several factors have contributed to this situation, such as the evolution of surgical and anesthetic techniques, the diminished risks of immediate post-operative complications, the advent of defensive obstetric conduct and the characteristics of health system organization, and the resulting remuneration, in addition to the demands of patients.[2]

Brazil has one of the highest cesarean rates in the world and has been cited as a clear example of abuse of this procedure. The rates in Brazil have increased from 32% in 1994 to 40.2% in 1996. The reduction to 36.9%, in the period between 1996 and1999, was followed by an upsurge to 39.9% in 2002. It is estimated that, in Brazil, a country with approximately 2.5 million births yearly, 560,000 unnecessary cesareans are performed, costing nearly R$ 84 million every year.[3-4]

Although the risk of death during a cesarean is far lower today than four centuries ago, the unnecessary surgical childbirths performed in developing countries contribute to maternal death rates far higher than those observed in developed countries such as the United Kingdom. It is estimated that for every 100,000 Brazilian women, 75 to 130 die during childbirth or due to pregnancy-related complications. The rate in the UK is approximately ten deaths for every 100,000 women.[5]

Strategies have aimed at reducing the rate of cesareans, promoting the information that cesarean sections do not provide extra advantages, increase maternal risk, have negative implications for future pregnancies, and increase the costs for the health system.

In this regard, the Ministry of Health, as part of the government's policy towards encouraging natural childbirth, instituted Ordinance MS/GM 2.815[6] in May of 1998, which included "natural childbirth without dystocia, performed by an obstetrical nurse" on the Hospital Information System of the Unified Health System (the Brazilian national health system – Sistema Único de Saúde - SUS) and Ordinance 466,[7] which establishes limits for surgical childbirth, according to the complexity of the obstetrical hospital service. Ordinances MS/GM 569, 570, 571 and 572 of June 1st 2000[8] instituted the Program for the Humanization of Prenatal Care and Childbirth, aiming to look at obstetrical care holistically to support women's rights.[9]

The cesarean childbirth rates are currently correlated with the proportion of childbirths performed by trained healthcare professionals.[10] The high cesarean rates in university hospitals are alarming. The centralization of medical education in larger reference hospitals and in hospitals capable of handling greater complexity can harm the accessibility of student doctors (undergraduates and residents) to low-risk obstetrics, resulting in professionals prepared to deal with complex situations, but limited in following and investing in natural and low-risk deliveries.[2]

It is essential to search for the factors that justify the increase in cesarean rates so that solutions can be developed.[3] Several experts point at the current organization of obstetrical care as playing an important role in the high rates of cesareans. In some studies, factors related to the women's personal and social life, as well as regional and institutional factors related to the organization of the services comprise non-medical aspects associated with the current obstetrical practice in Brazil.

Based on this understanding, the purpose of the present study was to outline the social and obstetrical profiles of women who experienced cesarean childbirth in a public university maternity hospital in the state of São Paulo.

METHOD

This qualitative, descriptive and retrospective study was performed through a survey using archived documents. The data were collected at a university maternity hospital located in the interior of São Paulo state, aimed at studying situations of low obstetrical risk and following the philosophy of humanizing labor and childbirth. Being a public institution, the care is focused on clients of the Unified Health System (SUS). The referred institution is part of the Children's Friends Hospitals and in 1999 received, the Galba de Araújo award, which acknowledges and awards the SUS network units that most stand out in terms of providing humanized care to women and newborns (NBs), as well as encouraging natural childbirth and breastfeeding.

The study proposal was evaluated by the Research Ethics Committee of the University of São Paulo at Ribeirão Preto College of Nursing, after being analyzed and approved by the Research Commission referred by the institution, and received approval under review number 0743/2006. It was not necessary to use the Free and Informed Consent Form because the study used secondary sources of data exclusively. Therefore, the study complied with the recommendations of the Guidelines and Norms for Human Research, approved by Resolution CNS 196/96.

The data collection procedure consisted of surveying information available in clinical records, and was performed during the period between June and December 2005, as well as between January and June 2006. The data were registered on an adapted version of the instrument proposed and applied by Schneck[11], which records data regarding the subjects' identification, sociodemographic characteristics, clinical-obstetrical conditions, obstetrical interventions, and neonatal conditions.

Based on the obtained information, it was possible to outline the social and obstetrical profile of women who experienced cesarean childbirth at the studied institution. The social profile refers to the origin, maternal age, marital status, occupation, and educational level of the studied population. The obstetrical profile consists of parity, gestational age, cervical dilation, uterine dynamics, and the state of the chorionic membranes at admission. Also related to the obstetrical profile, the following main interventions performed during labor and delivery were investigated: amniotomy, infusion of intravenous oxytocin and intrapartum cardiotocography. The following indications for cesarean childbirth were described: iterativity (two or more previous cesarean sections), acute fetal distress, failed induction, cephalopelvic disproportion, premature placental separation and breech presentation. Regarding the neonatal profile, the variables *newborn weight* and *Apgar score* were included in the study.

Consequently, the databank was structured, subjected to double entry, and then exported to the Excel application on the software, from which the statistical analysis was performed using EPI-INFO 6.04 to elaborate the descriptive statistics, with the respective frequency distributions and associated contingency tables.

RESULTS

During the aforementioned periods, there were 2,638 deliveries at the maternity hospital, which corresponded with 2,133 natural births, 52 forceps deliveries, and 676 cesarean deliveries, in addition to eight admissions following home births. There was a mean of 221 deliveries per month, considering the 12 months studied.[12] The study population consisted of 676 women and their newborns. There were a total of six exclusions because the respective records were not located. The cesarean delivery rate was obtained using the formula proposed by the National Supplementary Health Agency (*Agência Nacional de Saúde Suplementar*).[13] The rate obtained for the period was 23%.

Social profile

Regarding their sociodemographic characteristics, the study population was characterized as young women with a mean age of 25.3 years (±5.9). Most (76.1%) were between 14 and 30 years of age, and adolescents (between 14 and 19 years) accounted for 21.3% of the entire group.

The population had a low education level, with only 2.9% of the women having completed a secondary education; most did not have a paid occupation, with 79.1% reporting working only in their own homes.

It stood out that most women lived in common law relationships, with only 14.3% of the participants reported as single. Most (73.4%) lived in the studied city, and 21% lived in neighboring cities, keeping in mind that the studied maternity hospital is a referral center for the respective Regional Health Division. Table 1 lists the values referring to the studied sociodemographic variables.

Table 1 – Distribution of women subjects, according to age group, education and marital status variables, in the period between June 2005 and June 2006. Ribeirão Preto-SP

(continua)

Social profile	n	%
Age group		
14-19	109	16.2
20-25	260	38.8
26-30	141	21.0
31-35	106	15.8
36-40	31	4.6

(conclusão)

Social profile	n	%
41-43	6	0.8
Not informed on record	17	2.5
Occupation		
Unpaid	530	79.1
Paid	120	17.9
No formal contract	20	2.9
Education (years)		
1 to 3	20	2.9
4 to 11	580	86.5
> 11	20	2.9
Not informed on record	50	7.4
Marital status		
Common law	350	52.2
Married	220	32.8
Single	91	13.5
Separated	6	0.8

Obstetric profile

Clinical-obstetric conditions at admission

Regarding the women's clinical-obstetric conditions, the data reveal that the study participants attended prenatal care, and that most (66.5%) attended more than seven appointments.

In relation to obstetrical history, it was observed that the mean number of pregnancies was 2.2 (±1.5). The minimum number of previous deliveries was one and the maximum was six, with a mean of 1.08 deliveries (±2.2). Only 43% of the participants were primiparas. Considering the entire population, 43% had experienced a previous cesarean. The number of previous abortions ranged between zero and four, with a mean 0.2 abortions (±0.5).

The mean gestational age was 39.2 weeks (±2.6), according to the onset of amenorrhea. The following findings were identified on the admission records: 16.2% of the women did not present with contractions, 13.1% were admitted with cervical dilation between five and seven centimeters, and 64.6% between one and four centimeters. Only 39 (5.8%) women were admitted without cervical dilation. It should be highlighted that 104 (15.5%) records did not include information regarding cervical dilation on admission.

On admission, 62.6% (420) of the women presented with intact chorionic membranes, and 33.7% (226) presented with rupture of membranes during the evolution of labor, 21% (140) of whom presented with meconium-stained amniotic fluid.

Obstetric interventions during labor

Regarding obstetric interventions, it was found that 75.9% (509) of the 670 studied women were subjected to artificial rupture of membranes, and 27.6% (185) received an intravenous infusion of oxytocin during labor and delivery. It is emphasized that cardiotocography was performed in 52.2% (350) of the population.

Figure 1 lists the most frequent indications for cesarean delivery reported on the studied records.

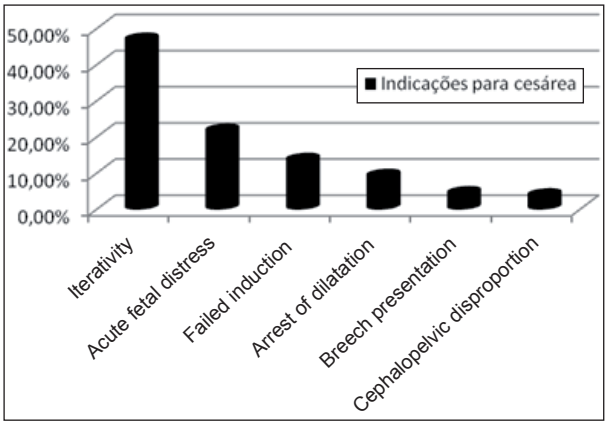

Figure 1 – Distribution of cesarean childbirth rates according to their indications, in the period between June 2005 and June 2006. Ribeirão Preto-SP

Other indications were observed, although less frequently. Secondary arrest of labor and failure to progress each accounted for 0.2% of the indications for cesarean section, while premature placental separation and previous cesarean each accounted for 1.5%. Furthermore, hypertensive syndromes and imminent uterine rupture accounted for 1.2% of the indications. It should be highlighted that 0.1% of the records did not include this information.

Neonatal profile

The weight of the studied newborns ranged between 1,785 and 5,955grams, with a mean

weight of 3,330grams (±475.8). Regarding the Apgar scores, 61.4% (412) and 98.2% (658) of the newborns obtained, at the first and fifth minute of life respectively, scores greater than or equal to seven.

DISCUSSION

The identified rate of cesarean births at the studied institution was 23% for the studied period. In 1985, the WHO stated that a rate greater than 15% is medically unjustifiable.[14] Nevertheless, cesarean rates have increased worldwide. More recently, the Ministry of Health, aware of the upsurge in cesarean rates in Brazil, launched the "Campaign for encouraging natural childbirth". According to the Ministry of Health, cesareans currently account for 43% of the deliveries performed in Brazil in both the public and private sectors, while in the SUS cesareans account for 26%.[15]

The 23% rate found in the present study, despite contradicting the recommendation of the WHO, is below the 31% and 28.1% rates found in public low-risk maternity hospitals in São Paulo in 2006 and 2008, respectively. Furthermore, it should be highlighted that the rate of cesarean births at university and private hospitals in São Paulo accounted for 56.3% - 57.1% and 87.5% - 87% for 2006 and 2008, respectively.[2]

Therefore, a comparative analysis of these values shows that, although the cesarean rate observed in the studied institution is considered high, it follows the tendencies verified in public low-risk and university maternities in São Paulo: rates below 15% are currently unachievable.

In view of this reality, the possible related factors should be discussed. The objective of the present study was to outline and describe the profile of women who experienced cesarean delivery, considering that the literature is unanimous in relating women's personal and social factors, as well as characteristics of the institution, to the performance of this procedure in Brazil.[3]

The social profile of the studied population evidenced young women with a low education level, living in common law relationships with no paid occupation of their own. Furthermore, it stands out that a significant subsection of the studied population consisted of adolescents. There is a consensus that maternal, fetal and neonatal mortality rates increase among women above 35 years as well as among adolescents.[16]

The identification of the small number of women with paying occupations in the study contradicts the statistics showing their growing inclusion in the labor market. Statistics show that women represent a growing economically active population. It is likely that the high percentage of subjects who reported not having a job is related to their age and low educational level.

Education is a fundamental variable to understand the differences in the reproductive behavior observed in the population. A study confirms that, in Brazil, lower education levels correlate with younger ages of initiation of sexual activity, having a stable relationship, number of children, and mortality rates.[17]

In regards to the obstetric profiles, it should be highlighted that 43% of the women had a previous cesarean section, which confirms this fact as being one of the main medical indications for subsequent surgical deliveries.[18]

Recent studies address the issue of the type of delivery indicated for patients who have previously had a cesarean as being one of the main indications for cesarean deliveries.[19] The idea of "once a cesarean, always a cesarean" still persists,[20] which is founded on the risk of uterine rupture or dehiscence. However, the current recommendation is to perform a trial of labor with a woman who has had a previous cesarean as an attempt to facilitate natural childbirth,[21-23] respecting some common sense recommendations such as maternal and fetal monitoring during labor.[24-26]

Primiparity has also been described as a risk factor for cesarean delivery in several studies, under the hypothesis that obstetricians consider these women less capable of dealing with the difficulties of labor or because they attend a greater number of prenatal appointments, also associated with the phenomenon.[23-27] Preventing cesareans among primiparas is of vital importance- in the long term, they anticipate the cumulative effects of a previous cesarean with the consequent increased probability of another cesarean among these women.

One extremely important finding to be considered was the cervical dilation on admission. It is observed that more women in the latent stage (not in active labor) are admitted compared to those in the active phase of labor. According to the Ministry of Health, the correct time of admission is when women have entered the active phase of labor, though admission in the latent stage is justified in the following cases: difficult access to the

place of childbirth, gestational age greater than 41 weeks, previous cesarean and premature rupture of membranes.[16]

The smaller percentage of the studied women were those who were admitted at the opportune moment, i.e., in the beginning of the active phase of labor.[28] It must be considered that this observation is directly related to the number of admissions of women with a previous cesarean, due to the diagnosis of iterativity.

Iterativity (two or more previous cesareans) and acute fetal distress (AFD) were the motivators of, or indications for, cesareans. It is likely that iterativity represented a reflexive behavior. In the United States, repetitious cesarean section constitutes the main determining factor for the increased rates of this type of delivery.[29]

During the latent phase, an early admission lacking a clear indication increases the length of stay and subjects women to the hospital environment unnecessarily; furthermore, it predisposes them to unnecessary interventions. Cesareans were performed in cases of iterativity, acute fetal distress and premature placental separation in the initial stage of labor.

Another important consideration regards the findings that comprise the so-called "active management" of labor, performed as an attempt to accelerate the parturition process.[30-31] Amniotomy was performed in 75% of the studied women. The literature suggests weighing the risks and benefits of this intervention. Among the benefits it is highlighted that it reduces labor duration and the use of synthetic oxytocin. On the other hand, it is observed that there is a tendency in the increase in the rates of cesareans.[32] Considering this evidence, the authors suggest that amniotomy should be reserved for cases when women have an abnormally long evolution of labor.

Regarding the use of oxytocin, it is observed that its indication was relatively restricted. However, it should be questioned whether there is any association between the use of intravenous oxytocin associated with amniotomy as an attempt to actively manage labor and the percentage of cesareans indicated due to acute fetal distress.

Electronic fetal monitoring has been discussed in the literature among factors causing the increased rates of cesareans. In the present study, it was identified that cardiotocography was utilized in over 50% of the population.

Although the WHO[14] has reported that intra-delivery fetal monitoring is beneficial for following induced labors or to monitor labor complicated by meconium-stained amniotic fluid or any other risk factor, it is known that it can also be counter-productive in low-risk labors, because it restricts women to their bed, limiting their movement, and has the potential to generate a greater number of unnecessary interventions.[16]

The analysis of the most frequent indications for cesarean delivery observed in the study reveals consonance with the guidelines proposed by the Brazilian Medical Association and the Federal Council of Medicine. According to these regulating bodies which are responsible for medical practice in Brazil, cesarean sections can be advantageous over natural deliveries in the following situations: pelvic presentation in primiparas, premature placental separation with a live fetus, women who have had more than one previous cesarean (iterativity), acute fetal distress and cephalopelvic disproportion, among others.[2]

Regarding the valorization of obstetrical nursing, studies point out that obstetrical nurses are committed and qualified professionals who adhere to the principles of natural childbirth as a physiological event which promotes dignity, security and autonomy. Since 1998, the Ministry of Health has qualified obstetrical nurses for their inclusion in promoting the care of women undergoing natural childbirth. According to the professional legislation of nursing, nurses and obstetrical nurses/midwives are the non-physician professionals qualified to perform natural childbirth.[27]

The Brazilian Ministry of Health has been working on the elaboration of protocols that legitimize the practice of these professionals in the hospital environment as well as outside it, such as the creation of birthing centers for natural childbirth. These actions also aim at encouraging the transformation of obstetrical care focused on interventionist practices to others that promote women's empowerment and the experience of physiological childbirth.[33]

Regarding the neonatal outcomes, it was observed that most newborns had an appropriate weight for their gestational age. In addition, the high Apgar scores demonstrate good neonatal health, which may be related to the opportune indication of the type of delivery.

It should be emphasized that, although assessing the newborns' physical condition using the

Apgar score serves as a parameter for comparison, it has limitations and, if considered alone, it does not indicate the care that might be needed after birth or the prognosis of the newborns.

FINAL CONSIDERATIONS

Despite the fact that the cesarean rates of the studied maternity hospital were above those recommended by the WHO, it was found that the observed indications for the surgical deliveries are included the field of absolute recommended indications, and, furthermore, women with a more deprived socioeconomic profile are viewed in terms of accessibility to obstetric care as more "dense" from a technological perspective, thus surgical childbirth is necessary when it is required protect lives.

Nevertheless, the literature considers that the rates of cesarean deliveries do not reflect the quality of obstetric care. There is much to consider regarding the institutional mechanisms and the organization of health networks in order to elevate the culture aimed at natural childbirth. The indiscriminate use of cesarean sections has become an important public health problem because of its higher costs (longer length of stay, use of more medications) and higher maternal and newborn morbidity and mortality.

The multidimensional and regional characteristics of cesarean culture in Brazil indicate that interventions should focus on the medical team, the women, and the organization of the services at the maternity hospitals. In this sense, administrative and educational strategies become extremely useful, such as providing feedback regarding cesarean rates to obstetricians, which is also believed to be a strong contribution of the referred practice.

Encouraging natural childbirth requires professional preparation and the awareness that non-interventionism is the best practice in situations without obstetrical risk. The study identified decisions made during active management of labor, which could be questioned regarding their potential to generate dystocia and fetal distress, thus contributing to the rates of cesareans performed because of these diagnoses.

These findings reveal an emphasis on the valorization of obstetrical nursing in the low-risk natural childbirth scenario, considering the non-interventionist character inherent to this profession.

Between 70 and 80% of all pregnancies can be considered as low-risk at the beginning of labor. Furthermore, it is affirmed that obstetrical nurses provide the most appropriate and cost-effective care in pregnancy and natural childbirth.

The discussion regarding labor and delivery care and its excessive medicalization permeates the working process of obstetrical nurses who, working in the current medically-centered obstetrical care model, are unable to gain any space and autonomy for their professional practice, which has been proven to be effective in controlling the rates of cesarean sections in Brazil. On the other hand, the leaders responsible for the organization of obstetrical care should assume their share of accountability regarding the lack of control of cesarean rates.

The organized civil society plays an important role in demanding public policies that truly permit women to reassume the leading role in the parturition process, returning to them their historical rights of choice and opinion regarding their condition, which have been dismissed by medical knowledge across the evolution of science.

In view of the present study findings, we found underlying information that corroborates scientific evidence, offering opportunities to reflect and propose interventions in the practice of obstetrical nursing, bringing it closer to the ideals embodied in the public policies for the humanization of labor and delivery.

The limitations of the present study include the fact that it was performed at a university hospital having particular characteristics, with a population having a specific socioeconomic profile, thus the level of generalization to the general population is questionable.

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