

# Transferring mothers from a free-standing birth center to a reference hospital\*

REMOÇÕES MATERNAS DA CASA DO PARTO DE SAPOPEMBA PARA HOSPITAL DE REFERÊNCIA

REMOCIONES MATERNAS DE LA CASA DEL PARTO DE SAPOPEMBA PARA HOSPITAL DE REFERENCIA

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## ABSTRACT

The objective of this descriptive study was to characterize the transfers of mothers from the Sapopemba Birth Center to reference hospitals in São Paulo, from September 1998 to July 2008. The studied population was 229 cases of mother transfers. Data were obtained from medical records and record books of the transferred women. Descriptive analysis was performed. The transfer rate was 5.8% (5.5% in the intrapartum period and 0.3% in the postpartum period). Most women who were transferred to the hospital were nulliparous (78.6%). The most common reason for intrapartum transfers was fetal or pelvis abnormalities (22.6%), and abnormal placental detachment (50%) for women in the postpartum period. Some conditions such as nulliparity, cervical dilation at admission, rupture of the membranes and gestational age over 40 weeks were highlighted as important variables for studying the risk factors for mothers being transferred.

## DESCRIPTORS

Obstetrical nursing  
Birthing Centers  
Natural childbirth  
Maternal and child health

## RESUMO

O estudo descritivo com objetivo de caracterizar as remoções maternas da Casa do Parto de Sapopemba, em São Paulo, para hospitais de referência, entre setembro de 1998 e julho de 2008. A população do estudo compôs-se de 229 casos. Os dados foram obtidos dos prontuários e dos livros de registro de remoções. Foi realizada análise descritiva. A taxa de remoção materna foi de 5,8% (5,5% intraparto e 0,3% pós-parto). A maioria das mulheres removidas para o hospital era nulípara (78,6%). O motivo mais frequente para remoção intraparto foi anormalidade da pélvis materna ou do feto (22,6%) e para a remoção pós-parto, anormalidade da dequitação (50%). Destacaram-se a nuliparidade, dilatação cervical na admissão, membranas ovulares rotas e idade gestacional superior a 40 semanas como variáveis importantes para o estudo de fatores de risco para remoção materna.

## DESCRIPTORIOS

Enfermagem obstétrica  
Centros Independentes de Assistência à Gravidez e ao Parto  
Parto normal  
Saúde materno infantil

## RESUMEN

Estudio descriptivo que objetivó caracterizar las remociones maternas de la Casa del Parto de Sapopemba-SP para hospitales de referencia entre setiembre 1998 y julio 2008. La población del estudio se compuso de 229 casos de remoción materna. Los datos se obtuvieron de las historias clínicas y libros de registro de remociones. Se realizó análisis descriptivo. La tasa de remoción materna fue del 5,8% (5,5% intraparto y 0,3% postparto). La mayoría de las mujeres derivadas para hospitales era nulípara (78,6). El motivo más frecuente de derivación intraparto fue anormalidad de pelvis materna o del feto (22,6%), y para cada remoción postparto, anormalidad de expulsión placentaria (50%). Tuvieron destaque la nuliparidad, dilatación cervical en la admisión, membranas ovulares rotas y edad gestacional superior a 40 semanas como variables importantes para el estudio de factores de riesgo en la remoción materna.

## DESCRIPTORES

Enfermería obstétrica  
Centros Independientes de Asistencia al Embarazo y el Parto  
Parto natural  
Salud materno infantil

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## INTRODUCTION

In Brazil, birth and neonatal care is overmedicalized and markedly characterized by unnecessary and potentially harmful interventions that are not supported by scientific evidence. This model of care includes excessive c-sections, lack of companionship and privacy during childbirth and routine augmentation and episiotomy. Since the 1990's, several actions to promote natural childbirth have been implemented as a result of the movement that aims to change childbirth practices in the country.

These public policies have considered two lines: promoting humanized childbirth care and preventing interventions that have no clinical indications, such as c-sections<sup>(1)</sup>. In order to achieve these aims, a proposal for implementing Birth Centres (BC) was presented in 1998. In August 1999, the Ministry of Health Law 985 established the criteria for creating those units within the Brazilian Health System – *Sistema Único de Saúde* (SUS). The BC provides care for low-risk women in normal deliveries and can be integrated to a hospital or to a primary care unit<sup>(2)</sup>. The BCs can vary regarding the distance from the reference hospitals, but their model and philosophy of care are the same: they are midwifery-led units where midwives and nurse midwives are in charge for the care in natural childbirth.

The Sapopemba Birth Centre (SBC), a community based freestanding birth centre, was established in 1998 in São Paulo city. It aims to offer women with a straightforward pregnancy humanized care during the labour and delivery. Nevertheless, this birth care model raises questions regarding safety of mothers and newborns (NB), since it provides birth care in an out of hospital setting<sup>(3)</sup>.

Therefore, the results of studies that investigate maternal transfers from birth centres to hospitals can refine the criteria to admit women in these services<sup>(4)</sup>, and clarify issues regarding the safety of these midwifery-led units.

A systematic review including studies carried out in in-hospital BC in developed countries analysed clinical, psychosocial, and economical outcomes of women who planned to have their babies at those places. It concluded that the services can offer appropriate and personal care to women and their families<sup>(5)</sup>. Maternal transfers have also been addressed on an ongoing UK study, coordinated by the National Perinatal Epidemiology Unit (NPEU), which aims to investigate the maternal and neonatal outcomes of childbirths at home, birth centres and hospital settings<sup>(6-7)</sup>.

A systematic review of the Cochrane Library, with near 9,000 women assisted in standard and home-like hospi-

tal settings, found smaller intervention rates and greater satisfaction among the women who received care in the latter. No statistically significant differences were found for perinatal mortality, however no studies at freestanding birth centres were found<sup>(8)</sup>.

One case-control study performed in a freestanding birth centre investigated neonatal transfers to identify the associated risk factors. Smoking during pregnancy, complications in labour, and an Apgar score less than or equal to 7 on the first minute were identified as risk factors for transferring the newborns (OR 5.5; CI 95% 1.06 – 28.26)<sup>(9)</sup>.

The recent freestanding birth centres experiences in Brazil should be investigated by nurse midwives and midwives. The results of these services may contribute to support this childbirth care model<sup>(5,10)</sup>. Therefore, this study was carried out with the aim of describing the maternal transfers from SBC to reference hospitals.

## METHOD

This observational study was carried out at the SBC, a freestanding birth centre of the Brazilian Health System (SUS), which is integrated to the Family Health Program of the São Paulo local health department.

From its opening, in September 1998, to July 2008, there were 3,937 admissions of women for obstetrical care and 270 maternal transfers. Thirteen of the latter were transferred to the hospital before being admitted, for different reasons that included not meeting the admission criteria (prematurity) and others not related to the care provided at the service (a family request). Therefore, 257 women were transferred from the SBC to hospitals during labour or after delivery. Of all transfers, 28 women were excluded: in two cases, their record did not specify the reason of the transfer; and in 26 cases their medical records were not available for unknown reasons, thus representing a 10.9% loss. Hence, the study population comprised 229 women who were transferred from SBC to hospitals, from September 1998 to July 2008. The data were obtained using a form that was filled out with information from the medical records of the women admitted to the SBC and from two transfer record books. The studied outcomes were: socio-demographic (age, education level, marital status, employment, period of transfer: during labour or after delivery; catchment area; type of prenatal care: public and private or insured care); obstetric history (number of pregnancies, parity, mode of previous deliveries); number of prenatal appointments and consultations at the SBC; obstetric conditions at admission (gestational age, cervical dilation, membranes condition at admission, duration of membranes rupture; obstetric condition at the mo-

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ment of maternal transfer (cervical dilation, fetal condition); rate, reasons and time between maternal admission and transfer; maternal outcome and conditions of the NB (Apgar score at the 5<sup>th</sup> minute, and birth weight).

The transfer reasons were collected using the same terminology that the SBC nurse midwives and midwives used on the records. Therefore, reasons for intrapartum transfer were grouped into 12 categories: 1) **Prolonged latent phase**: cervical dilation of up to 4 cm at the transfer, associated with: weak uterine contractions, arrested labour, protracted labour, functional dystocia, premature rupture of membranes, slow progression of dilation after augmentation; 2) **Prolonged active phase**: cervical dilation from 5 to 9 cm at the moment of transfer, associated to the reasons mentioned in the first category; 3) **Prolonged second stage**: fully dilated cervix with arrest of fetal head descent; 4) **Cervix characteristics**: unfavourable or spastic cervix; 5) **Abnormalities of the birth canal or fetus**: capput succedaneum, cephalopelvic disproportion, fetal macrosomia, cervix edema, unengaged fetal head and palpable sacral promontory, polihydramnios, vulvar varicose veins; 6) **Non-reassuring cardiotocography**: late or prolonged fetal heart rate deceleration, tachycardia (fetal heart rate > 160 bpm) and absent variability; 7) **Mecconium stained amniotic fluid (MSAF)**; 8) **Maternal stress**: woman is agitated or not collaborating, feels dizzy and weak; 9) **Family's decision**: transfer was requested by her husband or other relative; 10) **Uterine tachysystole** and 11) **Occult umbilical cord prolapse**; 12) **Others**: reasons related to a clinical condition that is either unfavourable or not included on the SBC admission protocol, and the women's decision. The data were submitted to descriptive analysis and the results are presented in tables and figure. The study was approved by the Research Ethics Committee of the local São Paulo Health Department (Register number 223/2006/CEP/SMS).

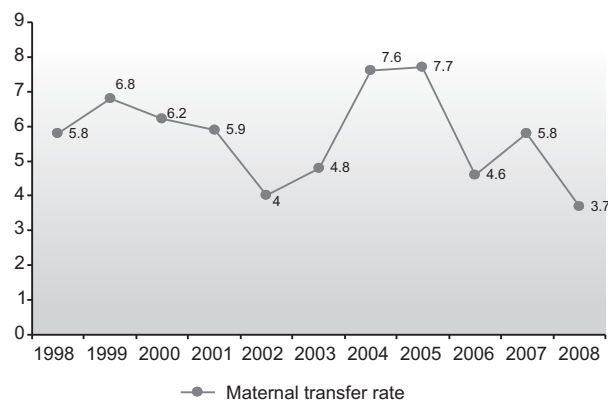
**Study setting:** In the SBC, women with straightforward pregnancies are assisted and referred from local primary health care units (catchment area). The service is also sought by women from other regions due to their interest in the model of health care offered at SBC. The first appointment is scheduled at the 37th gestational week, when a risk assessment is performed following the SBC guidelines. The SBC is available 24 hours a day. The antenatal care at SBC consists of weekly appointments until the onset labour. At the moment of admission, women are encouraged to bring a companion. After the delivery, if mother and newborn are in good conditions, both are discharged in up to 24 hours. This is a monitored discharge, with a return appointment scheduled for the 3rd or 4th postpartum day to collect a blood sample for the routine newborn screening test (phenylketonuria, congenital hypothyroidism, cystic fibrosis, sickle cell disease, and thalassemia tests), to assess the mother's and baby's conditions and to provide general orientations. The women may also get in touch by phone or come back to the SBC at any time.

The care to pregnant and birthing women is fully provided by nurse midwives and midwives, supported by auxiliary nurses. The support staff consists of an ambulance driver, one security guard and a servant. All nurse midwives and midwives are periodically trained in providing emergency care for women and newborns, and equipment to provide emergency care is available at the unit.

During the first years of the SBC, the reference hospitals to transferring women from SBC were: Amparo Maternal, Clínica Infantil do Ipiranga and Hospital Cândido Fontoura. In 2002, Hospital Estadual de Vila Alpina (HEVA) became the reference hospital. An ambulance, available 24 hours a day, is used for the transfers. The hospital is located 4 km away from SBC. Since 2006, two nurse midwives or midwives are present in each shift and all women or newborns are transferred with one of them.

## RESULTS

Of the total 3,937 (100%) women admitted to the SBC during the study period, 229 (5.8%) were transferred to hospitals: 217 (5.5%) during labour; and 12 (0.3%) in the postpartum period. The maternal transfer rate ranged across the years; with the lowest rate in 2002, and the highest in 2004 and 2005 (Figure 1). The SBC was open in September 1998, and the data collection was completed in June 2008; therefore, data collection was incomplete in those years.



**Figure 1** – Rates of maternal transfers from the Sapopemba Birth Centre to hospitals - São Paulo, 1998- 2008

The mean age of the women transferred to the hospital was 23.9±6.1 years, ranging between 14 and 40 years with a greater proportion of adolescents (27.5%); 54.1% had at least 8 years of education; 77.3% had a partner; 43.7% were employed; 35.8% did not live in the SBC catchment area; and 8.7% were referred from private or insured health services; 26.2% attended at least three prenatal appointments; 80.4% were seen at least once by a SBC nurse midwife before being admitted in the service.

Most women transferred from the SBC were nulliparous (78.6%) and 21.4% had had one or more deliveries, most of them being spontaneous births. The median ges-

tational age was 40 weeks, and 27.9% women exceeded 40 weeks. All women transferred to hospitals during labour had a live fetus and there were no maternal deaths.

Regarding the obstetrical conditions of the birthing women at the admission in the SBC, the mean cervical dilation was  $3.5 \pm 1.8$  cm, median of 3 cm, and 34% presented ruptured amniotic membranes. The mean duration of membranes rupture was  $3\text{h } 37\text{min} \pm 4\text{h } 23\text{min}$ , with 83.1% before 6 hours, and 4.6% with 12 hours or more. In order to obtain the mean amniotic membranes rupture duration, we excluded 13 women who lacked that information, and those who had amniotic membranes rupture duration higher than  $9\text{h } 45\text{min}$ , as they were considered to be outliers of the normal data distribution.

Most transfers occurred during the first stage of labour (163 - 81%); and most women (94 - 46.7%) were transferred in the active phase of labour, while 69 women (34.3%) were transferred in the latent phase. The mean duration between admission to the SBC and their transfer to the hospital was  $8\text{h } 52\text{min}$ , with a  $7\text{h } 33\text{min}$  median duration.

**Table 1** – Transference reasons from SBC to hospitals - São Paulo, 1998-2008

Reasons	N	%
<b>Transfers during labour (N=217)</b>		
Abnormalities of the birth canal or fetus	49	22.6
Non-reassuring cardiotocography	32	14.6
Prolonged second stage	25	11.4
Meconium stained amniotic fluid	24	11.0
Prolonged latent phase	24	11.0
Prolonged active phase	22	10.0
Characteristics of the cervix	10	4.6
Uterine tachysystole	9	4.1
Maternal stress	8	3.7
Family's decision	7	3.1
Occult umbilical cord prolapse	2	0.8
Others*	5	2.3
<b>Postpartum transfers (N= 12)</b>		
Abnormal placenta detachment	6	50.0
Postpartum haemorrhage	2	16.7
Hypertension	1	8.3
Paresthesia of the limbs	1	8.3
Coccyx pain	1	8.3
Vaginal wall hematoma	1	8.3

\*other reasons: hypertension (n=2); mother's choice (n=1); fever (n=1); positive VDRL test (n=1).

The most frequent reasons for transfers during labour were abnormalities of the birth canal or fetus (22.6%), non-reassuring cardiotocography (14.6%), prolonged second stage (11.4%) and meconium stained amniotic fluid (11.0%). Cases of prolonged first or second stage of labour accounted for the transfer of 32.4% of the women, and the conditions related to fetus conditions such as: non-reassuring cardiotocography, meconium stained amniotic fluid and uterine tachysystole comprised 29.1% of the maternal transfers from the SBC to hospitals.

The abnormal placenta detachment was the reason for six transfers in the postpartum period, accounting for 50.0% of the transfers in this period, followed by postpartum haemorrhage (16.7%). Manual removal of the placenta was performed in half the transferred postpartum women.

The delivery mode of 168 (77.4%) women was known: 47.6% were c-sections; 3.6% forceps or vacuum extraction; 48.8% spontaneous births. The information about the woman and newborn conditions in the hospital were obtained with the family. There were no women deaths. Most of newborns (98.3%) had an Apgar score  $\geq 7$  in the 5<sup>th</sup> minute; the birth weight was equal to or greater than 3500g and more than 4000g for 80.4% and 9.9% of the babies, respectively. The mean birth weight was  $3,359.8 \pm 37.6\text{g}$ , with a median of 3,335g.

## DISCUSSION

This study was planned to investigate the data about the women transferred from SBC to hospitals. It aimed to describe their socio-demographic characteristics, obstetrical history, conditions at the transfer, and neonatal outcomes as a part of the assessment of the care provided in this service.

Socio-demographic conditions are outcomes that describe the women that planned to give birth at SBC and can indicate some differences from those planned in hospital settings. Some studies show that those women usually have more years of education. One study conducted in the United States (USA) found that 55.3% of the women had more than 12 years of education, and 12.3% were single<sup>(11)</sup>. In Brazil, the latest National Demographics and Health Research (2006) reported that the mean education years was 8.7 years for women living in urban areas, and 6.5 years in rural areas<sup>(12)</sup>. To have a complete primary education level often entails a different behaviour among women, regarding reproduction, contraception, health, hygiene and health services use.

In this study, the percentage of transferred women who were younger than 19 years (27.5%) and 35 years of age or older (7.9%) was greater than that found in an alongside BC in Belo Horizonte (Brazil), where the values were 25.8% and 4.9%, respectively<sup>(13)</sup>. In Germany, a study about intrapartum transfers from a BC to hospitals found a 34 years mean age<sup>(4)</sup>, a much higher age than the 23.9 years found in the present study. The socio-demographic characteristics from another study in Brazil, performed at a birth centre were also similar, such as the mean age of  $23.6 \pm 5.6$  years; 27.3% of adolescents; 75.4% with 8 years of study, and most (58.4%) were married<sup>(14)</sup>. According to the 2006 National Demographics and Health Research, over 64% of the women reported being married or in common-law union, and 54.2% were employed. Across the country, 77% of the pregnant women attended at

least six antenatal appointments, while in Southern Brazil that rate was 84.7%<sup>(12)</sup>.

Indicators such as having completed 8 years of education, be employed and married, among others that were not obtained in this study can comprise characteristics of women that judge themselves as having good health conditions for planning their deliveries at a birth centre. However, these data were not analysed using statistical inference.

The rates of maternal transfers presented in the Permanent Forum of Birth Centres of Southern Brazil, which took place in São Paulo in 2005, were 5.8% at the *David Capistrano Filho BC* (RJ), 3.1% at the *Casa de Maria BC* (SP), 10.7% at the *Juiz de Fora BC* (MG), 11.7% at the *David Capistrano BC* in Belo Horizonte (MG), and 6.7% at the SBC (SP). These rates were smaller than most of those reported in literature.

In two studies about freestanding birth centre in the USA, the maternal transfer rates were 15.8% and 19.6%, respectively<sup>(11,16)</sup>. A study in Texas (USA), in two freestanding BC, between 1993 and 1994, found a maternal transfer rate of 25.1% and 20%, respectively. The reasons pointed out at the two services were, respectively, 32.3% and 20.4% due to arrested progress of labour; 12.7% and 4.9% because of meconium stained amniotic fluid; 5.4% and 22.3% due to fetal compromise<sup>(17)</sup>.

In 1989, a study performed in California with 16 freestanding birth centres showed that among the 2,002 women admitted for labour, 166 (8%) were transferred. The transfer rate presented by the different birth centres was up to 37%. In the following year, seven birth centres were studied (1,443 women were admitted), and the reported rate was 9% during labour, and 0.3% in the postpartum. The cephalopelvic disproportion was the main reason (44%), followed by prolonged labour (38%), fetal compromise (7%) and meconium stained amniotic fluid (4%)<sup>(15)</sup>.

A study carried out in USA between 1986 and 1987 reported that among 11,814 women admitted for childbirth in 84 birth centres, 11.9 % were transferred to the hospital during labour. The reasons were: failed labour progress (57.5%), meconium stained amniotic fluid (13.4%) and fetal compromise (10%). The two main reasons for postpartum transfers were haemorrhage and retained placenta. There was a higher proportion of nulliparous compared to multiparous women among those who were transferred<sup>(11)</sup>.

In the United Kingdom, the maternal transfers in freestanding birth centres were 12% to 21.6% and the rates of hospital birth centres ranged from 16% to 30%<sup>(5)</sup>. At the alongside birth centre at *Sofia Feldman Hospital* in Belo Horizonte - Brazil, the transfer rate was 11.4% and the reasons for intrapartum transfers were: labour dystocia (25.8%), analgesia request (25.3%), meconium stained amniotic fluid (18.7%); and other reasons, such as blood

pressure  $\geq 140/90$ mmHg, fever, haemorrhage and umbilical cord prolapse<sup>(13)</sup>.

In Berlin, a study conducted in two freestanding birth centres found a maternal transfer rate of 18.2% among the 801 admitted between 1992 and 1994. The transfer rate in the postpartum period was 3.6%. Fetal compromise (32,9%) and failed progress in labour (28%) were the two main reasons for the transfers<sup>(4)</sup>.

The transfer rate observed at a freestanding birth centre in Norway, between 1995 and 1997, among the 1,275 women admitted for labour was 4.5% intrapartum and 4.4% postpartum. The main reasons were: membrane rupture duration higher than 24 hours without effective contractions, prolonged labour and fetal compromise<sup>(18)</sup>.

In Sweden, a study performed to investigate the prevalence and risk factors associated with transfers of planned home deliveries found a 12.5% transfer rate. Eight-five per cent of the transfers occurred before the delivery and the most common reason was failed progress of the labour (54.13%). Regarding the postpartum transfers, the main reason was haemorrhage (47.38%), followed by retained placenta (21.05%)<sup>(19)</sup>.

The review that included five studies carried between 1970 and 2002, about midwifery-led freestanding birth centres, showed that in three of them the intrapartum maternal transfer rate ranged between 14.6% and 22%<sup>(20)</sup>.

In this research, as well as in other two studies, most of the women who were transferred to hospitals were nulliparous<sup>(4,11)</sup>. In the USA, the study involving 84 birth centres found that 76.6% of the women who were transferred had been admitted with cervical dilation up to 5cm, against 49.7% of those whose deliveries occurred at the birth centre<sup>(21)</sup>. When analysing the transfer rates from birth centres, several factors should be considered, such as: socio-demographic aspects, risk assessment of assisted women, distance from the reference hospital, transfer process, reasons for transfers and the guidelines used at each birth centre<sup>(17)</sup>.

In this childbirth care model some components should be highlighted: health system funding and regulation, collaboration between the birth centres and hospital reference staffs, facilities and equipment, professionals, practices and consumers' participation. All these elements should be continuously monitored and assessed, considering outcomes, safety, costs and women's satisfaction<sup>(22)</sup>.

The maternal transfer rates from birth centres to hospitals reported in the literature vary widely and they can reflect the differences in health staffs, the distance from the reference hospital, and the different clinical and obstetrical criteria used for admitting and transferring the women. Moreover, there is no standardized classification of the reasons for maternal transfers and for the admission and transfer guidelines used at the studied birth centres. For these reasons, the comparative analyse is limited.

In this study, the obstetrical conditions at admission and the parity (78.6% nulliparous) are factors that are highlighted among the transferred women. The proportion of women with a gestational age of more than 40 weeks (27.9%), admitted with a cervical dilation of up to 4 cm (75.1%) and with ruptured amniotic membranes (34%) can indicate a group with potential need of transferring. During the 10 years of the SBC, this maternity service has been criticized due to the political context that involved the organization of the municipal health system in São Paulo, the opposite of other health profession categories and even of the department of public prosecution.

This context can be confirmed in the variation of yearly maternal transfer rates. Except for 2008, the lowest transfer rate was observed in 2002, when the HEVA has been defined as the reference hospital for maternal and neonatal transfers. The HEVA professionals slowly accepted that their service was a reference for the SBC. In 2004 and 2005, the highest maternal transfer rates appear to reflect the changes of nurse midwives staff and changes in the central levels of management. This context was aggravated by the ostensive position of the medical associations against the freestanding birth centres. Neonatal transfers were described in another study and also presented variations that reflect the same situation<sup>(3)</sup>.

Important outcomes when studying risk factors for maternal transfers were highlighted in the admission conditions of transferred women, such as: nulliparity, admission in the latent phase of labour, ruptured membranes, gestational age higher than 40 weeks. Fetal macrosomia was a relevant factor in the maternal transfer reasons. The analysis of these outcomes may point out important aspects for improving the guidelines for the childbirth assistance in out to hospital settings.

Studies that address the experience of women that were transferred to the hospital and its impact on maternal and perinatal outcomes are needed. These results should be further investigated using longitudinal

studies or studies that include maternal and perinatal outcomes.

## CONCLUSION

In this study, the maternal transfer rate was 5.8%; the most frequent reasons for intrapartum transfers were birth canal or fetus abnormalities (22.6%) and abnormal placenta detachment (50.0%), in postpartum transfers.

Nulliparous women (78.6%) admitted with a gestational age higher than 40 weeks (27.9%), cervical dilation up to 4 cm (75.1%), ruptured membranes (34%) and newborns with weight higher than 4,000g (9.9%), were highlighted as reasons for maternal transfers in the SBC.

Freestanding birth centres are not isolated units; these services have the concept of the expanded team, which is available in the reference hospital. Collaboration between the professionals of both services is the key for the success of this childbirth care model. Moreover, this model allows the development of the specific professional skills that support normal childbirth.

The birth centre reinforces the equity and classification of care by complexity level, which are principles of the Brazilian Health System.

It also implements the World Health Organization recommendation of offering women with straightforward pregnancies a facility that provides childbirth and postpartum services and which is located at the most peripheral level. It promotes the use of appropriate technology for childbirth care, avoiding unnecessary interventions and supporting the normal birth process among low-risk women.

Consolidating the model would imply on accepting and integrating it to the Brazilian Health System, according to its principles of equity and humanization of health care and additionally seeking its improvement.

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