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## Birth in prison: pregnancy and birth behind bars in Brazil

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**Abstract** *The high vulnerability of incarcerated women is worsened when they are pregnant and give birth during imprisonment. This article traces the profile of incarcerated women living with their children in female prison units of the capitals and metropolitan regions of Brazil and describes pregnancy and childbirth conditions and health-care practices while in incarceration. This study is an analysis of a series of cases resultant from a national census conducted between August 2012 and January 2014. This analysis included 241 mothers. Of these, 45% were younger than 25 years old, 57% were dark skinned, 53% had studied less than eight years and 83% were multiparous. At the time of incarceration, 89% were already pregnant and two thirds did not want the current pregnancy. Access to prenatal care was inadequate for 36% of the women. During their hospital stay, 15% referred to having suffered some type of violence (verbal, psychological, or physical). Only 15% of the mothers rated the care received during their hospital stay as excellent. They had low social/familial support and more than one third reported the use of handcuffs during their hospital stay. Incarcerated mothers received poorer health-care during pregnancy and birth when compared with non-incarcerated users of the public sector. This study also found violations of human rights, especially during birth.*

**Key words** *Pregnancy, Delivery obstetric, Prisons, Brazil*

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## Introduction

It is estimated that there are 10 million, two hundred thousand people imprisoned worldwide, of which women are the minority, though with growing presence among the population of imprisoned people<sup>1</sup>. The main reasons that lead women to be imprisoned are crimes related to drug trafficking, and crimes against patrimony such as larceny and theft, respectively 21% and 9.7% in Brazil<sup>2-4</sup>.

According to the “World Prison Brief”, the number of imprisoned women in the world exceeded 700,000 in 2014. Around one third of these live in the United States and 37,380 in Brazil, where women represent 6.4% of the total prison population<sup>4</sup>. Between 2005 and 2014, there was an increase of 118% in the Brazilian female prison population and the rate of female incarceration went up from 10.8 to 18.5/100,000 Brazilians<sup>5</sup>. Though incarcerated women represent a small proportion of the people deprived of their liberty in the county, they merit special attention, since they constitute a socially marginalized group.

Incarceration amplifies the social, individual, and inherent vulnerability of this population, hindering access to healthcare services, be it for prevention, assistance, or general care, as well as compromising their wellbeing and the full exercise of their citizenship<sup>6</sup>. Beyond this, there is a breaking of the social bonds of women who live far from their family and friends in an overpopulated, depreciated environment, characterized by violence (even amongst themselves) and with limited medical assistance<sup>7,8</sup>.

This vulnerability is intensified by particularities related to birth and motherhood in the prison environment<sup>9</sup>. The majority of these women are at reproductive age and it is estimated that 6% are pregnant<sup>10</sup>. If on one hand birth is viewed as a significant and positive event in a woman's life, on the other hand, this can be a source of psychological stress and anguish<sup>11,12</sup> especially in the prison context.

In conformity with international recommendations<sup>13</sup>, Brazil recently published norms and laws specifically dealing with incarcerated women<sup>9,14</sup>. However, their implementation is limited in the day-to-day running of prisons<sup>15</sup>.

In this article we described the socio-demographic characteristics of women living in prisons with their children younger than one year old and the conditions and practices related to care during pregnancy and birth while incarcerated.

We also described the mothers' satisfaction with the care received in prisons and hospitals during pregnancy and at childbirth.

## Methods

### Context

In the majority of Brazilian states, the pregnant woman is transferred in the third trimester of pregnancy from her prison of origin to prison units that house mothers and children, generally located in metropolitan and regional capitals. Imprisoned women in labor are taken to the public hospital for birth and return to the same unit where they remain with their children for a period that varies between 6 months and 6 years (the majority between 6 months – 1 year). After this period, the child is usually handed to the family of the mother and she returns to the prison of origin.

To our knowledge, there is no nationwide study regarding this theme. Therefore, we undertook a multidisciplinary study entitled “Mother-infant health in Prisons”, financed by the Oswaldo Cruz Foundation and the Health Ministry, which integrated health, psycho-social, judicial, and architectural dimensions to evaluate the current situation of mothers living with their children in prisons. In this article, we considered the aspects related to the health dimension only.

The “Mother-infant health in Prisons” study was a census with an institutional basis undertaken between August 2012, and January 2014, in female prison units that housed mothers living with their children, located in the capitals and metropolitan regions of 24 Brazilian states and in the Federal District. For the health dimension, four research instruments were applied: structured interviews with the pregnant women and mothers in prison units; collection of data of mother and newborn the hospital's medical records; interviews with the local managers about the organization of the prison unit; and photographs of prenatal cards and children's health handbooks.

The data was collected on electronic forms previously prepared using EpiData, software specially designed to register and export data. After the process of data collection and extraction of the information derived from the photographs, a unified database was put together so as to allow an integrated analysis of the results.

## Study Population

We interviewed 495 women, 206 pregnant women and 289 mothers. The states of Tocantins and Acre were not included since they did not house pregnant women or mothers at the time of the study. Around 3% of women (16 women) refused to participate in the study. These refusals occurred in seven states across the 24 visited.

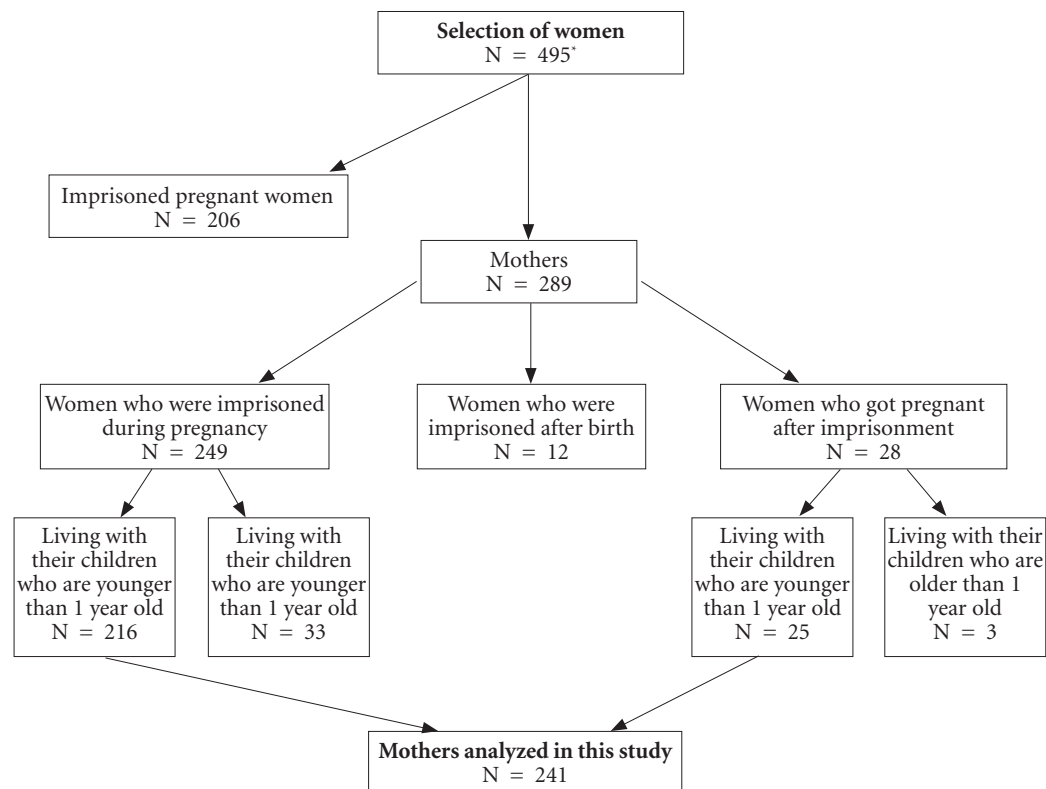
We excluded from the current analysis 206 pregnant women, 36 mothers of children who were one year old or older and 12 women who were incarcerated after birth, with 241 mothers of children who were younger than one old and who gave birth after being imprisoned remaining in the study. The exclusion of these pregnant women was due to the study's intention of analyzing the care given during pregnancy and birth. The exclusion of mothers with children of one year or older was due to the possibility of memory lapses regarding the pregnancy or birth. The exclusion of mothers who gave birth before being imprisoned was due to the pregnancy and birth

having taken place outside of the prison units (Figure 1).

We described socio-demographic aspects such as age (18 and 19 years, 20 to 24, 25 to 29, 30 to 34, 35 or older); self-reported race/color (white, brown, black, yellow, or indigenous); education (without education, 1 to 4 years, 5 to 7, 8 or more years); marital status (with or without companion), and head of the family (herself, companion, mother, other).

In terms of the prison situation, the women were classified by the number of times that they had been incarcerated (1<sup>st</sup> time, 2<sup>nd</sup> time, 3<sup>rd</sup> time or more) and the current prison time (up to 3 months, 3 to 6, 6 to 12, 12 to 24, and 24 months or more).

To characterize the obstetric history and prenatal care we described the number of prior pregnancies, number of children (one, two to four, more than four); satisfaction with the current pregnancy (more than satisfied; satisfied; unsatisfied); desire for the current pregnancy (desired at that moment, would have waited to become



**Figure 1.** Census of imprisoned pregnant women and women living with their children in the prison units of the capitals and metropolitan regions of Brazil

pregnant, unwanted pregnancy); adequacy of prenatal care (adequate, partially adequate, or inadequate); received prenatal card (yes, no), and visits during pregnancy (yes, no).

We used the Kotelchuck<sup>16</sup> criteria to evaluate prenatal care, which is based in two distinct dimensions: gestational age at the start of prenatal care, and adequacy (in percentage) of the number of prenatal care visits. In this study, the variables cited above were based in the recommendations of the Health Ministry, which established that adequate prenatal care should begin before the 16<sup>th</sup> week of gestation with at least one parental care visit in the first trimester, two in the second trimester, and three in the third trimester. In this way, for pregnancies taken to term (37 weeks or more) the minimum number of parental care visit expected would be six, and less for pre-term pregnancies<sup>17</sup>. The women who initiated prenatal care after the 16<sup>th</sup> week of pregnancy and/or who had an adequacy percentage for number of visits less than 50% were classified in the “inadequate prenatal care” category. For women who started prenatal care between the 1<sup>st</sup> and 16<sup>th</sup> week of pregnancy, the adequacy of care was defined based on the adequacy percentage for the number of visits: partially adequate (50-79%), adequate (80-109%), and more than adequate (more than 110%)<sup>16</sup>.

We characterized care during labor and birth according to the following variables: time between the start of labor and assistance in the prison unit (first 10 minutes, 10 to 30 minutes, 30 minutes to 1 hour, 1 to 5 hours, 5 to 24 hours, more than 24 hours); if family was informed of the start of the labor (yes, no); transport at the time of labor (police car, ambulance, private car); type of birth (vaginal, cesarean); companion during hospital stay (yes, no); family visit at the hospital (yes, no) and maltreatment/violence during hospital stay (yes, no), including use of handcuffs during hospital stay (yes, no). We used the following variables to measure the satisfaction with care received at hospital stay for birth: general care; approach by the health staff in receiving and talking to them; respect for their privacy and intimacy by the health staff and respect for their privacy and intimacy by the guards (excellent, good, regular, bad, terrible).

We considered as having had familial/social support women who received visits during pregnancy at the prison unit or during childbirth at the hospital or who enjoyed the presence of a companion during labor/birth.

The categorization of maltreatment/violence by hospital staff or by guards or penitentiary

agents during hospital stay was determined by way of three questions: 1 – Verbal violence – “In your hospital stay during birth, did you consider that you were victim of some maltreatment or other form of violence on the part of the *hospital staff/guards or penitentiary agents*, such as verbal aggression (they swore or screamed at you)?”; 2 – Psychological violence “*Hospital staff/guards or penitentiary agents* threatened, humiliated you, or denied attendance or the provision of food?”; 3 – Physical violence “*Hospital staff/guards or penitentiary agents* pushed you or performed a digital vaginal examination in a violent manner?”.

### Statistical Analysis

We calculated absolute and relative frequencies to describe the included variables. We used SPSS 21,0 program (IBM Corp., Armonk, USA).

### Ethical Considerations

This project was approved by the Research Ethics Committee of the Sergio Arouca National School for Public Health, Oswaldo Cruz Foundation (ENSP/Fiocruz), approval number 189.780. Approval from local Research Ethics Committees was also obtained, whenever required by the selected hospitals.

### Results

Regarding socio-demographic characteristics, 67% of women interviewed were between 20 and 29 years of age, 45% were younger than 25 years old, 57% were brown skinned and 13% were black. Education levels were low – 48% had from one to seven years of study, that is to say, they had not completed primary education, and 5% had never been to school. In relation to the marital status, 56% of mothers declared themselves to be single, with one third of them being the head of the household (Table 1).

In relation to the current time of detention, 20% were in prison for less than 6 months and 44% had been imprisoned between 6 months and one year. The majority of the women reported that this was their first detention (57%), but 20% were recidivists, being incarcerated three or more times already (Table 1).

In the analysis of the reproductive history, more than one third of the detainees had had four or more previous pregnancies and 20% had five or more children. Approximately 8% had

**Table 1.** Sociodemographic characteristics of the 241 imprisoned women living with their children who are younger than 1 year old in the prison units of the capitals and metropolitan regions of Brazil.

	N*	%
Age		
18 and 19	12	5.0
20 to 24	97	40.2
25 to 29	65	27.0
30 to 34	54	22.4
35 or more	13	5.4
Skin color		
White	68	28.3
Brown	137	57.1
Black	31	12.9
Yellow	3	1.2
Indigenous	2	0.8
Years of schooling (n = 240)		
No schooling	12	5.0
1 to 4	34	14.2
5 to 7	82	34.2
8 or more	112	47.6
Marital status (n = 238)		
Living with companion	104	44.4
Not living with companion	134	55.6
Head of the family		
Herself	73	30.3
Companion	59	24.5
Her mother	56	23.2
Others	53	22.0
Number of times incarcerated**		
First time	137	56.8
Second time	56	23.2
Third time or more	48	19.9
Time in current imprisonment		
< 3 months	11	4.6
3 to 5 months	37	15.4
6 to 11 months	106	44.0
12 to 23 months	65	27.0
≥ 24 months	22	9.1

\*The total is variable according to the number of missing values. \*\* Including current imprisonment.

already had a child during prior incarceration (Table 2).

Almost 90% of the detainees were already pregnant when they were incarcerated. At the time when the pregnancy took place, 37% wished to become pregnant and 63% did not wish to become pregnant, at that moment or ever. 81% of the women were satisfied or more or less satisfied with the course of the pregnancy.

Most women (93%) had at least one pre-natal care visit, however only 32% had adequate or more

**Table 2.** Obstetric history, prenatal care and satisfaction of the 241 imprisoned women living with their children who are younger than 1 year old in the prison units of the capitals and metropolitan regions of Brazil.

	N*	%
Number of previous pregnancies		
0 or 1	74	31.0
2 to 3	87	36.4
4 or more	78	32.6
Number of children**		
1	41	17.2
2 to 4	148	61.9
5 or more	50	20.9
Previous history of birth in prison***		
Yes	13	7.5
No	161	92.5
Wanted the current pregnancy		
Yes	89	36.9
No, not at that moment	33	13.7
No	119	49.4
Satisfaction with the current pregnancy		
Satisfied	141	58.5
More or less satisfied	55	22.8
Dissatisfied	45	18.7
At least one prenatal care visit		
Yes	225	93.4
No	16	6.6
Adequacy of prenatal care****		
Inadequate	80	36.2
Partially adequate	63	28.5
Adequate	61	27.6
More than adequate	17	7.7
Received the prenatal card****	186	77.5

\*N variável de acordo com o número de observações ignoradas. \*\* Incluindo o filho pesquisado. \*\*\* Apenas para multiparas. \*\*\*\* Apenas mães que fizeram uma visita pré-natal.

than adequate access to prenatal care. The majority (77%) received the prenatal card (Table 2).

In the prison units, more than 60% of women reported having been assisted up to 30 minutes after the start of labor, but 8% reported waiting more than 5 hours. For the majority of the pregnant women (61%), the means of transport used at the time of labor was the ambulance; however, a considerable proportion (36%) were taken in a police car. As for the type of birth, 65% were vaginal (Table 3).

During pregnancy, almost 40% of women did not receive any visits from family or friends and the family was informed about the start of labor



**Table 3.** Care during labor and birth of the 241 imprisoned women living with their children who are younger than 1 year old in the prison units of the capitals and metropolitan regions of Brazil.

	N*	%
Time between the start of labor and assistance in the prison unit		
First 10 minutes	91	39.9
10 to 30 minutes	54	23.7
30 minutes to 1 hour	26	11.4
1 to 5 hours	38	16.7
More than 5 hour	19	8.3
Transport to hospital at the time of labor		
Police car	85	36.6
Ambulance	143	61.7
Private car	4	1.7
Type of birth		
Vaginal	154	64.7
Cesarean	84	35.3
Received visits during pregnancy at the prison unit		
Yes	151	62.7
Father of Baby	39	16.2
Grandparents of baby	99	41.2
Others	111	46.1
No	90	37.3
Family was informed of the start of the labor		
Yes	24	10.5
No	204	89.5
Companion during hospital stay		
Yes	7	2.9
No	231	97.1
Received visits during childbirth at the hospital		
Yes	28	11.8
No	213	88.2
Maltreatment/violence by health staff during hospital stay		
Yes	37	15.6
Verbal**	22	59.5
Psychological**	18	48.6
Physical**	10	27.0
No	201	84.4
Maltreatment/violence by guards or penitentiary agents during hospital stay		
Yes	33	14.0
Verbal**	21	63.6
Psychological**	21	63.6
Physical**	6	18.2
No	208	86.0
Maltreatment/violence - use of handcuffs during hospital stay		
Yes	86	35.7
Before Birth**	53	61.6
During birth**	7	8.1
After birth**	79	91.6
No	155	64.3

\* Total is variable according to the number of missing values.

\*\* Percentage considering only the women who suffered such maltreatment/violence. Categories are not mutually exclusive.

in only 10% of cases. The presence of a companion of the women's choice during hospital stay was 3%, and 11% of them received family visits while in hospital (Table 3). For 73% of the mothers the main reason for not receiving a visit from family members at the hospital was prohibition by the prison system (data not shown).

Women in labor reported having suffered maltreatment or violence during their hospital stay at the hands of health staff, 16%, and from guards or penitentiary agents, 14%. In both situations, the main forms of maltreatment/violence reported were verbal and psychological. The use of handcuffs at sometime during hospitalization for birth was reported by 36% of the pregnant women, with 8% even reporting having been handcuffed during birth (Table 3).

Regarding the satisfaction of care during their hospital stay, 15% of women rated it as excellent. However, only around 10% viewed the respect for their privacy/intimacy by the health staff and by the guards/ penitentiary agents as excellent. This percentage was a little higher regarding the approach by the health staff in receiving and talking to them (18%) (Table 4).

## Discussion

This study was the first to describe at a national level the characteristics of women living with their children in Brazilian prisons, and the practices related to pregnancy, labor and birth that they experienced. These mothers were mostly young, brown skinned, with a low level of education and a high number of previous pregnancies. Most were already pregnant at the time of incarceration. Prenatal care started late in pregnancy and was generally inadequate in terms of number of visits. A large proportion of women suffered violence during their hospital stay and received little familial/social support during pregnancy, labor and birth and during the postpartum period.

Brazil has considerably improved access to prenatal, labor, and birth care<sup>18</sup>. However, there are still inequalities, mainly in the quality of care offered, which is lower for women from unfavorable socioeconomic backgrounds<sup>19</sup>. A large part of the prison population originates from these backgrounds, a fact observed in this study due to the very high proportion of women with low levels of education. Beyond the risk factors inherent to this socioeconomic background, women who go through pregnancy and labor in a prison are even more vulnerable. Care during pregnancy

**Table 4.** Satisfaction with care received at hospital stay for birth of the 241 imprisoned women living with their children who are younger than 1 year old in the prison units of the capitals and metropolitan regions of Brazil.

	N*	%
Satisfaction with the general care received		
Excellent	36	15.1
Good	138	58.0
Regular	33	13.9
Bad	22	9.2
Terrible	9	3.8
Satisfaction with the approach by the health staff in receiving and talking to them		
Excellent	44	18.3
Good	135	56.0
Regular	38	15.8
Bad	10	4.1
Terrible	11	4.6
Satisfaction with the respect for their privacy and intimacy:		
By the health staff		
Excellent	25	10.5
Good	155	65.1
Regular	35	14.7
Bad	12	5.0
Terrible	11	4.6
By the guards or penitentiary agents		
Excellent	27	11.3
Good	137	57.6
Regular	39	16.4
Bad	16	6.7
Terrible	19	8.0

\*Total is variable according to the number of missing values.

should begin with the woman's admission to the prison, with the offer of a pregnancy test during entry examinations<sup>14</sup>, according to national and international laws. This would lead to a greater benefit from prenatal care. Only 35% of incarcerated women however, had adequate prenatal care and this percentage was two times less than that encountered in the research "Birth in Brazil", where 76% of women started prenatal care early in pregnancy and 73% had at least six prenatal care visits<sup>20</sup>. For pregnant women assisted by the Universal Health Care System (SUS) the proportions were 73% and 68% respectively, which shows the disadvantage of incarcerated women even when compared with users of the SUS, who have comparable socioeconomic conditions<sup>21</sup>.

The pattern found in this study coincides with that described for the majority of coun-

tries, especially those with low incomes such as sub-Saharan Africa<sup>22</sup>, but also in developed countries like the United States<sup>14</sup>. In a similar manner, studies undertaken in Australia and Italy found worse outcomes for newborns of incarcerated mothers such as greater prematurity and lower birth weight rates, when compared with non-incarcerated mothers<sup>23,24</sup>.

In France, health care for the imprisoned population is, by law, independent of the penitentiary administration and assistance within the prison is the responsibility of the public hospital of the area where the prison is located<sup>25</sup>. In this way, pregnant women are followed from the beginning of pregnancy by the team where the birth will take place, which facilitates educational activities and preparation for birth, assuring the continuity of care from pregnancy to birth<sup>26</sup>. This reduces the anxiety of pregnant women and provides better outcomes.

In Brazil, according to the indications of the law 11.634, woman should be linked during pregnancy to a hospital/maternity where they will deliver<sup>27</sup>. The objective is to familiarize the woman with the hospital environment, strengthening ties with health care staff and assuring a place for birth. Incarcerated pregnant women do not benefit from this right assured for the general population.

The percentage of incarcerated mothers who received at least one visit during the period of pregnancy was low and of those visited, the grandparents of the children were those who most appeared, with infrequent presence of the child's father (16%). The absence of the father might partially be explained by the fact that many of them are also incarcerated. The greater support offered by grandparents in Brazil was also observed in the United States. A recent study showed that principally grandparents are responsible for the children while the mothers remain incarcerated<sup>28</sup>.

The precariousness of communication between the prison system and the families of the incarcerated mothers is evident when one observes that 89% of the families were not even notified about the start of the woman's labor. In the hospital, only 3% of women reported having a companion of her choice, which was contrary to the Law 11.108, promulgated in 2005. This law guarantees the right to a companion of free choice for the woman during hospital stay<sup>29</sup>. The fact that the penitentiary system prohibits family visits further increases the solitude and the abandonment that these women experience. D'Orsi et



al.<sup>30</sup>, studying a representative sample of Brazilian mothers, found that the presence of a companion was associated with a better perception of the care received. Women with a companion also reported having received a more respectful and private treatment, less violence and were more disposed to ask questions and participate in decisions.

There is a belief that women become pregnant to receive benefits or to be transferred to prisons with better accommodation, but this is not true. This study showed that almost all these women were already pregnant at the time of incarceration<sup>15</sup>. Two thirds of the mothers did not want the pregnancy at that moment, though 81% were satisfied or more than satisfied with the pregnancy. Once imprisoned, women may have mixed feelings about the pregnancy. On one hand, they may be happy to no longer be alone, on the other hand, there may be anguish about possible pregnancy complications, resultant from prison violence or from uncertainties regarding the process of labor, and preoccupations about the destiny of the child, which would be born in prison<sup>9</sup>. This situation implies a comprehensive monitoring of the health of the pregnant women, which does not occur in the majority of the prisons.

The long wait between the beginning of labor and first assistance in the prison unit shows an inability to attend in a timely fashion the pregnant women, who frequently depend on the evaluation of the penitentiary security agents to assess the need for transferal to the hospital<sup>9,31</sup>.

Incarcerated mothers rated the care received during their hospital stay much worse than non-incarcerated women from SUS. For the former group only 14% considered the care received to be excellent, against 42% for the later group<sup>21</sup>. D'Orsi *et al.*<sup>30</sup> showed that there was a difference in the rating of women according to their socioeconomic condition. Poorer women and women of brown or black skin color were less satisfied, while the health care professional's attitude was the most important factor for the mother's rating. For imprisoned pregnant women, beyond these factors, the pressure exercised by security agents and prejudice against imprisoned people generally, contributed to the naturalization of practices very often in conflict with the health care professional's professional ethical precepts. Beyond suffering verbal and psychological abuse, as much from the health staff as from penitentiary agents, incarcerated women were victims

of humiliation and disrespect. Many remained handcuffed in the hospital and, for some of them, even during labor, preventing the benefits of walking and free movement, a recommended WHO practice for a better progress of labor<sup>32</sup>.

Our study had limitations regarding possible difficulties in women's reporting of real life conditions in the prison due to the fact of the interview occurring in the prison environment. To attenuate these difficulties, the interviews were individual, undertaken in a private area and interviewers were independent from the prison system. Prison officials, from the health or security areas, were not present and did not interfere in the course of the interviews.

### Conclusions and recommendations

This study showed the precarious socioeconomic conditions of mothers who give birth in prisons. Amongst other things, inadequate prenatal care, the use of handcuffs during labor, as well as reports of violence and low satisfaction with the care received denote that the health care service has not worked as a protective barrier and guarantee of rights for this population group. This is contrary to the principal that imprisoned women should benefit from the same treatment as the free population, according to the Federal Constitution<sup>33</sup>. Beyond dignified living conditions, opportunities for health improvements through education, especially in the fields of reproductive, sexual, and infant health, should be offered to these women. Alternatives to incarceration, such as home confinement, should be considered for pregnant women, especially for those provisionally imprisoned. Despite it being indicated in Brazilian legislation it is rarely applied.

Normative international<sup>12</sup> and national<sup>8</sup> instruments concerning reproductive rights in prisons, especially the Bangkok Rules<sup>12</sup>, are very important but little observed in Brazil. The Inter-ministerial Ordinance from 16<sup>th</sup> of January 2014, established the National Policy for Care for Women in Situations of Deprivation of Liberty and Prison System Leavers<sup>34</sup>, indicating a new perspective for issues on female incarceration adopted for imprisoned women in Brazil. There is still however, much to be done in the day-to-day running of prisons, especially concerning pregnant and puerperal women.

## Collaborations

MC Leal, BVS Ayres e AP Esteves-Pereira planned the article, conducted the fieldwork, analyzed and interpreted the data, and wrote, read and approved the final version of manuscript. A Sánchez e B Larouzé conducted the fieldwork, and wrote, read, and approved the final version of the manuscript.

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