Overcoming the culture of physical immobilization during labor and birth remains a challenge in Brazil. This study identified facilitators and barriers to implementing freedom of movement throughout labor and birth in a pilot project of the Mother-Baby Friendly Birthing Facilities Initiative in a public maternity facility in São Paulo, Brazil using the Change Laboratory methodology. There was a divergence between health managers’ and professionals’ perceptions of maternal care practice and those of the service users and the observations made in the facility. Freedom of movement seemed to be more respected during labor than at birth. Birthing mothers were regularly “positioned” in the lithotomy position, considered by health professionals to be an “instinctive” or “preferred” position. Women reported that they failed to take the initiative to move for fear of being reprimanded by health professionals. Simple changes to the ambience and professional training for health professionals in care provision in nonsupine positions could help foster change.

Keywords: Public health. Women’s health. Humanization. Childbirth care. Obstetric violence.
Introduction

Prenatal and postpartum healthcare, including labor and delivery and complications such as miscarriage, is a prominent topic within the field of women’s health in Brazil and around the world. While poor countries continue to experience healthcare access challenges, in middle-income countries with universal access to healthcare such as Brazil quality of care has become a major concern. Despite the fact that practically all births take place in health facilities under the care of trained health professionals, maternal mortality in Brazil has stagnated since the last century at a worryingly high level, with a predominance of direct causes of mortality. Furthermore, indicators show excessive levels of medicalization, high c-section rate and use of amniotomy, low adhesion to best practices such as eating during labor and birth, and non-pharmacological pain relief. Surprisingly, only 5.6% of women at habitual risk who give birth in hospitals do not undergo some type of intervention.

Over the last two decades, various initiatives have been proposed to improve the quality of maternal care, ranging from the publication of obstetric practice guidelines to broad-ranging policies and programs directed at women’s health. Thus, the recognition of the need to enhance service delivery in order to uphold the right to the highest attainable standard of health enshrined by the Constitution and international agreements signed by Brazil is by no means recent.

One of the various measures proposed by the Brazilian Health Ministry and international organizations is the recommendation that women should have freedom of movement throughout labor and birth, since evidence shows that having the freedom to walk, move, and change position during labor is associated with better birth outcomes and greater maternal satisfaction with childbirth. Adopting upright positions and moving throughout labor has been shown to have physical and psychological benefits, increasing the woman’s sense of control and making the contractions become more effective, as well as avoiding the adverse physiological effects of the supine position on the woman and baby. As a result, it reduces the time from the onset of labor until the cervix is completely dilated, diminishing the need for analgesia and the chances of having a c-section and the baby being admitted to a neonatal intensive care unit. Furthermore, when the birthing woman is provided with the freedom to assume the positions of her choice, her autonomy is strengthened.

Despite the above, barriers to promoting mobility in labor remain in various countries including Brazil. Initiatives aimed at promoting changes in practices aimed at guaranteeing a safe and pleasurable birth experience also recognize the importance of mobility in labor and have included this recommendation among their accreditation criteria. A case in point is the Baby-Friendly Hospital Initiative (BFHI), whereby for hospitals and maternity units to be designated baby-friendly they must meet woman-friendly care criteria. Likewise, freedom of movement throughout labor and birth is one the indicators of the Mother-Baby Friendly Birthing Facilities Initiative (MBFBFI). However, while the BFHI has been successful, with a consolidated accreditation system, the MBFBFI is still in the experimental phase in Brazil and other countries.

Inspired by women’s movements initiatives to promote women-friendly care, the MBFBFI was developed by the International Federation of Gynecology and Obstetrics (known as FIGO), World Health Organization (WHO), and partner organizations.
in 2015 in response to persistently high maternal mortality rates in low and middle-income countries, showing that access to health services for women and babies alone does not guarantee health results. FIGO, the WHO, and the partner organizations proposed ten criteria\(^{(f)}\) for establishing “mother–baby friendly” birthing facilities\(^{23}\). The initiative is anchored in the understanding that maternity care must encompass respect for women’s basic human rights and is directly related to equity promotion, as highlighted by organizations and previous studies\(^{24-27}\).

In Latin American countries and Brazil in particular, there is an understanding that being confined to bed during labor and obliged to give birth in recumbent positions can constitute a form of institutional violence against women, because it jeopardizes the autonomy of birthing women, disrupts the normal physiological processes of birth, and prevents women from deciding freely about their bodies. The appropriation of a woman’s body and reproductive processes has also been termed obstetric violence, abuse, disrespect, and mistreatment, and there is growing evidence to suggest that it is intimately linked to low-quality care and poor health outcomes, even in specialized services\(^{13,25,26,28-34}\).

The changes that need to be made to health services to guarantee that women are provided with freedom of movement during labor and birth are low cost, especially considering the benefits for the health and well-being of mothers and infants. However, less than half of birthing women in Brazil move throughout labor and this percentage is significantly lower in the private sector\(^{3}\). With respect to birthing position, over 90% of women (with little variation by region and characteristics of birthing women) give birth in recumbent positions (lying on the back with legs open and immobilized, a position considered anti-physiological, painful, and potentially harmful)\(^{3}\).

The evidence and recommendations support freedom of movement during labor and birth at will and according to women’s needs. However, a review of the literature on this topic conducted by Priddis et al.\(^{18}\) show that there are various obstacles and knowledge gaps that hinder the implementation of these changes. This article therefore discusses the partial results of a project aimed at implementing the MBFBFI at a public maternity facility in São Paulo, focusing on the facilitators and obstacles associated with the implementation of freedom of movement and position throughout labor and birth from the perspective of health managers, professionals, and service users.

### Methods

This study is part of the project “Strategies for incorporating innovations in birth and newborn care: a pilot intervention in the SUS of the Mother-Baby Friendly Birthing Facilities Initiative (MBFBFI)”, initiated in November 2016 and still underway. This study was approved by the Research Ethics Committee (CAAE 56958716.0.1001.5421). The project aims to develop and evaluate a pilot intervention for the implementation of the MBFBFI in two public maternity facilities in São Paulo and Ribeirão Preto, guided by the Change Laboratory methodology\(^{35}\). The latter focuses on the use of work activities in their permanent transformation and seeks to show the internal contradictions of activity systems, to enable the identification of problems and the emergence of innovations that lead to solutions. The study was

\(^{(f)}\) Freedom of movement during labor and birth and the opportunity to drink and eat light food; nondiscriminatory policies for the treatment and care of HIV-positive mothers, teenagers, ethnic minorities, etc.; privacy during labor and birth; allow all birthing women a companion of her choice; provision of culturally competent care; does not allow physical, verbal, emotional, or financial abuse; provision of affordable or free care; does not employ routine practices; provision of both nonpharmacological and pharmacological pain relief as necessary; promotion of immediate skin-to-skin mother/baby contact and actively support breastfeeding.
conducted in the following stages: situation mapping, consisting of a comprehensive study of activity systems; investigation into and analysis of the historical origin of these systems; creation of a new model; test, implementation and consolidation of the new model.

The data was produced in an institution in the south zone of São Paulo that has existed for 80 years and has invested in the humanization of birth care, through training, accreditation, reforms, and changes to the facility’s environment. Run by a social organization since the 2000s, the service provides care to birthing women at habitual risk under the Unified Health System (SUS, acronym in Portuguese). The study was conducted over the period November 2016 to November 2017, which from the perspective of the Change Laboratory corresponds to the situation mapping and analysis, analysis of the history of the situation, and the beginning of modeling. In this period, the study sought to understand what professionals and health managers understood by technical inadequacies, abuse, and disrespect during care and their relationship to precarious working conditions and professional training according to the following strategies, guided by the Change Laboratory.

Working group meetings: formed in the first months of the project, the working group was made up of health managers and professionals, service use and researchers to achieve greater alignment between the service and project needs and the sustainability of change. The group met once or twice a month to discuss quantitative and qualitative service data (including the data produced during observation and interviews) and to agree and formalize innovative ways of understanding and executing activities. The meetings were recorded and transcribed.

Participant observation: three postgraduate students and five undergraduate students were trained to observe the service using a pre-established guide based on MBFBFI criteria. Around 300 hours of observation were undertaken in November and December 2016, distribute across different periods and weekdays based on the workstation rota, encompassing ante-natal care for postterm pregnancies, the admission sector, normal birth center, surgical center, rooming-in postnatal ward, and neonatal UTI. Observations were recorded in a field diary and checked on a weekly basis by coordinators to clarify doubts regarding the reports totaling over 300 pages.

Focus groups: with health managers and professionals (two sessions), nursing technicians (two sessions), and service users (once, with women who had given birth at the maternity facility). The focus groups were conducted using a guide based on the 10 MBFBFI criteria and the meetings were recorded and transcribed resulting in around 10 hours of recording and 250 pages.

Interviews: three health managers, one service user, and the participant of a doula training course provided by the institution were interviewed using a guide based on the 10 MBFBFI criteria. The interviews lasted an average of one hour and were recorded and transcribed.

Collection of data about the history: reading and discussion of institutional documents, book, and articles by the working group with the participation of professionals who had been working in the facility in recent decades to understand the development of activity systems in the institution, both in the past and at the time of analysis. The meetings were recorded and transcribed.
The transcriptions were read and a thematic analysis was conducted to organize them into initial categories defined a priori according to the MBFBFI criteria. The results shown in this article refer to the criteria freedom of movement and position during labor and birth and were subjected to exhaustive reading and organized into subcategories. Based on the Change Laboratory methodology, the analysis sought to identify patterns and contradictions in adopted practices from the perspective of different actors in order to delineate existing challenges and problems that could be the object of intervention.

The MBFBFI criteria stem from international instruments related to the rights of women during childbirth. These documents lay the foundations of the understanding that birth care not based on scientific evidence, negligence, abuse, and disrespect constitute violations of women’s human rights and signal the existence of gender inequality, especially in relation to sexual health. Here, gender is understood as a social construction of sex, and therefore related to historical and cultural dimensions, which ends up guiding the perception and organization of social life, including women’s health and birth care. Conceptions of gender support the medicalization of a woman’s body and thus the appropriation of reproductive processes by medicine, with the intention of making them conform to certain standards.

Studies show that health professionals understand that discriminatory and disrespectful practices are understood as a supposedly necessary exercise of authority within maternity facilities. Mattar and Diniz hold that the relationship between health professionals and women is asymmetric and that there is a reproductive hierarchy in which a woman’s status as a mother is defined according to characteristics of race, class, generation (or age), and sexual partnership. Thus, it can be said that the motherhood of poor, black, single, lesbian or transgender women, be they teenagers or adults, is subaltern. Other women’s attributes, such as being HIV-positive, homeless, a drug user, sex professional, or a prisoner, and having a physical disability may lead to a lower level of social acceptability of their status as a mother. Each one of these forms of social inequality can increase the vulnerability of women to various forms of violence, including immobilization during labor and birth, including extreme cases where female prisoners who give birth while handcuffed.

**Results**

Based on data from the local Live Birth Information System, the maternity facility dealt with an average of 450 births per month in 2016, of which around 30% c-sections. Sixteen point six percent of the women were aged up to 19 years and 30.6% between 20 and 24 years. The majority of mothers were black or brown (64.2%) and had between 8 and 11 years of study (74.4%), while 15.4% had completed secondary school. It is notable that 74.5% of the sample declared themselves single in 2016, compared to only 41% of women who gave birth at municipal level, which is similar to the national rate in 2015 (41.2%).
From the perspective of health professionals: there are resources, but patients “find it strange”

Perceptions of freedom of movement during labor and birth differ across the different study participants. From the point of view of health managers and professionals, all women were provided with freedom of movement. Facilitators cited by this group include the existence of physical space, care team encouragement, companion guidance, and permission for the presence of a doula, as well as equipment that aids nonfarmocological pain relief, such as the Bobath ball and adopting upright positions using the birthing stool for example.

However, freedom of movement was conditioned by some type of prescription, whereby movement was permitted “if there was a recommendation”, reinforced by a poster in the admissions department entitled “No to obstetric violence! Understand your rights”, where it said “Positions will be discussed and guided by the health team”.

With regard to birthing position, health managers and health professionals confirmed that although birthing women were allowed to adopt the position of their choice, the majority preferred the lithotomy position.

Culturally they tend to adopt a traditional position, the team try to encourage and provide other positions, which depends upon their acceptance [...] a lot of the time they don’t accept it because they don’t know it and find it strange to giving birth on a birthing stool or floor (nurse, focus group).

In the doula training course the adoption of a given birthing position was attributed to both culture and instinct. In the first case, health professionals seemed to look down on the knowledge and preferences of indigenous women, while in the second they seemed naturalize the lithotomy position by calling it “instinctive”:

He [the health professional who lectures on the course] said: ‘I’m not talking about Indians. Indians give birth squatting because it’s their culture. But these women give birth in the lithotomy position because it’s instinctive’. (Participant in the doula training course, interview).

Considered more widespread and even more instinctive by the health professionals, the lithotomy position was reinforced in day-to-day care practices. Participant observation showed the use of terms such as “let’s position the patient”, with preference given to the lithotomy position. In one of the focus groups, when asked how many people give birth in the lithotomy position, health professionals and health managers remained silent and only after being encouraged to guess the number did they say “over half”. However, our observations showed that in practice women were rarely given the opportunity to choose nonhorizontal positions, although there is no institutional record of this.
From the perspective of service users: there are initiatives, but the health professionals restrained them

In contrast to the perspective of health professionals and health managers, service users alleged that they were not aware that they had the freedom to adopt the position that was most comfortable: "I didn’t have this freedom of position. Quite to the contrary, when they [other women with who they shared the space] tried to move or get into another position they were restrained and told off, saying that it had to be that way” (service user, focus group).

In general, service users showed themselves to be insecure in relation to what they could or could not do: “It’s a hospital environment, you feel scared. It’s not your environment. You should know whether you can walk around or not” (Service user, focus group).

Many professionals would not entertain nonrecumbent positions, as some observations show.

As labor progressed, this woman preferred to sit on the floor and the team was shocked and they all said “Ah, it’s dirty!” [...]. They put her on the bed in the lithotomy position and said You’re your baby can be born because it’s nice and clean!” (field diary).

In this case there seemed to be a lack of flexibility on the part of the professionals to provide a clean space on the floor, as in some services which provide birthing floor mats or clean towels.

What facilitates and hinders flexibility when it comes to birthing positions?

The accounts given by service users, the focus groups and working group discussions showed varying practices according to type of professional: “The manager commented that the nurses were more flexible, but the doctor’s not so much” (field diary); “It’s rare to find a doctor who knows how to accompany a birth where the woman isn’t ‘positioned’. It’s more common among nurses, but only some” (nursing technician, focus group).

Another factor associated with variation of practices were the characteristics of birthing women. Women called “IP” (jargon for “informed patient”) are those who seek information through their social relations or social media, such as the blogosfera materna (maternal blogosphere)⁴⁴-⁴⁶, which encourages the active participation of women in decision making about the birth and the elaboration of the birth plan⁴⁷:

With regard to the birth plan, […] I think they really took it into consideration […] I think I was well treated, I don’t know it they took that into consideration […] after, I asked to see my medical records, […] And I saw that they wrote “patient well informed”, it’s right up there, so I don’t know if there was prejudice to the contrary, understand? (service user, focus group).
Flexibility was greater during labor than at birth. Various women who sat on the birthing stool or were on all fours or other positions during labor gave birth in the lithotomy position: “The woman was on the birthing ball; when they realized she was in the expulsion stage she was promptly sent to the bed” (field diary).

The observations, working group discussions, group activities, and interviews showed that women lacked information in a number of situations. Various accounts showed that professionals tended to give instructions without worrying about explaining why, as in the case of an obstetric nurse, who peeking through the door said “You can’t spend much time on the toilet!” and walked off (field diary), and the doula who upon seeing a woman on the birthing stool said “now is not the time to use it” (service user, focus group).

For the women, lack of information, explanations for instructions and opportunity to choose resources can lead to immobilization on the bed. Women who wanted to walk around feared they would be reprimanded.

The women I was with lied in the bed the whole time and I felt unsure because I didn’t see anyone moving around. [...] I was afraid to walk around and didn’t know if I could or couldn’t, so much so that I only began to walk around when they said I could if I wanted to... and I was the only one who walked around (service user, focus group).

Some of the service users commended the fact that there were resources such as the birthing ball and took the initiative to use it even without being encouraged to do so: “I saw that there was a big ball at the end of the room, so I picked it up without asking anyone and sat on it and did circular movements the whole time.” (service user, focus group).

On some occasions, women who took the initiative to use the available resources without prior prescription or authorization by a health professional were made to feel intimidated: “I knew there was one [a ball], so I asked to use it. And I was told ‘you’ve just got here and you already want the ball?’ Then after a while they brought it.” (service user, focus group).

**Limitations related ambience**

The ambience was not very favorable for movement, with a lack of signs and information about what was permitted: “I stayed in the room the whole time. Nobody said “you can’t go out”, but I didn’t feel like leaving the room because the environment there didn’t make me feel very comfortable, so I felt better in the room” (service user, focus group).

Service users listed a series of simple low-cost suggestions to improve the ambience and facilitate freedom of movement and choice of position:

If the environment was a bit more colorful, a bit more... if there was some type of equipment to hold onto while standing, something in the corridor or on the way that says that we can use the space. Even if there was a ball in the corner of...
the room, but for us to know that it’s an open room that we can use the space. I don’t know if I can use the ball at that time... at any time... leave some resource that can be used. (service user, focus group).

Discussion

The findings regarding movement and positioning during labor and birth show a divergence between health managers’ and professionals’ perceptions of maternal care practice and those of the service users and the observations made in the service.

Freedom of movement seemed to be more respected during labor than at birth, when women were frequently required to lie on the bed and put into the lithotomy position. In other words, the woman was “positioned” for birth in a lying position with legs up and supported in stirrups, a task usually attributed to the nursing technician. Despite the frequency with which women were “positioned” in the lithotomy position, according health professionals and managers this was the women’s “preference”.

A study showed that the preference for this position, which is antiphysiological and results in worse maternal outcomes, is in fact of the health professional, because it facilitates access to the birth canal and interventions such as antisepsis, fetal monitoring, episiotomy, and sutures. However, this logic fails to be fully problematized in professional training and day-to-day practice, as the present study shows. The interviews and observations showed that health professionals tend to believe that the lithotomy position is engrained in the culture of urban women. However, this ignores the fact that this culture is created and fuelled by national obstetric care practices, whereby practically all births occur in the lithotomy position. At the same time, giving birth in the squatting position is understood by professional as being “inferior” or less civilized and characterized as an indigenous practice.

It is important to highlight that the service lacks protocols regarding the need to talk to women and give them the opportunity to choose their preferred birth position. Women were not explained the advantages and disadvantages of specific positions and, more importantly, the possibility of giving birth in a position different to that which they were “positioned”. Quite to the contrary, not only did health professionals put women in the lithotomy position, but they also reinforced the superiority of this position over other positions, stressing that they should conform to prescribed standards to ensure that the birth occurred in a “clean” environment, for example.

Flexibility in relation to birthing position and where the birth takes place requires the health team to “change position”, meaning that professionals must move out of the comfort zone of the usual positions they are taught to provide care in and experiment care in other positions such as on their knees or lying on the floor. In response to the astonishment and revulsion of their colleagues in relation to new positions, a group of more flexible professionals (doctors, obstetric nurses, and midwives) developed the campaign hashtag #sentandoparaopartonormal (hashtag #sittingfornormalbirth) with photographs of “heterodox” positions to inspire change.

In this regard it is important to acknowledge the comments of health managers and professionals that doctors are less inclined to provide care to women in upright
positions than nurses. Apart from raising possible questions about the education and training of different professionals, this difference shows the resistance of doctors to certain practices that challenge the hegemonic care model based on the intensive use of hard technology, despite the fact that have been shown to be beneficial to both mother and baby. Evidence suggests that the involvement of women in the decision about birth position is often more important than the position itself, since it increases her sense of control and therefore her satisfaction with the childbirth experience. However, according to Davis-Floyd, this attitude is incompatible with the conformist birth care found in the majority of hospitals, where it is assumed that health professionals maintain control over a woman’s body.

Service users often failed to take the initiative (such as walking around or adopting positions other than the lithotomy position) and adhered to the standard care model for fear of being reprimanded. This fear is by no means unfounded, given the asymmetries in the doctor-patient relationship. In this respect, it is important to mention that maternal stress and anxiety influence the complex hormonal orchestration necessary for labor and birth to progress and can interrupt uterine contractions. Despite this, women can spend a prolonged period of time in the normal birth center (sometimes days) without being informed on how to deal with the different stages of parturition.

Fostering companionship between women during labor and prior access to relevant information about service organization, the physiology of childbirth and, in particular, women’s rights appear to be promising arenas for supporting freedom of movement and choice of position during labor and birth. This was confirmed by the category “informed patient” or IP referred to by health professionals in the corridors of the maternity facility: women who know their rights, understand scientific evidence, and often devise a birth plan and present it to the team at the time of admission. It was evident that women who arrive at the service with a written birth plan knowing what they want for themselves and the baby receive a different kind of treatment. While on the one hand this illustrates concern on the part of the institution to respect the birth plan (since it is recorded in the medical records), on the other it raises questions about equality. In this respect, De Jonge et al. indicate that women with higher levels of schooling are more likely to give birth in nonrecumbent positions, while a systematic literature review of abuse and disrespect during birth care conducted by Bohren et al. reported that less informed women and those with lower levels of schooling receive poorer quality care. It is therefore vital to strengthen actions directed at providing women with clear and adequate information about what to expect in the maternity facility and encouraging the elaboration of care plans.

The accounts of the service users reinforce the fact that it is not enough to just not prohibit movement, but rather it is necessary to encourage movement, both directly and indirectly, making the environment more inviting and welcoming and providing adequate equipment such as grab rails and birthing balls. Furthermore, service users questioned why women could not walk in spacious and well ventilated areas outside the service, especially on hotter days, given that the normal birth center is not climatized and is hot and stuffy.
Conclusion

The acknowledgement of the benefits of movement and upright birthing positions for the health and wellbeing for both mother and baby have not been enough for the facilities to make adequate changes to ambience, protocols, and practices, even for services that embrace a more humanized, woman-centered care. Simple changes to the physical space, the use of spaces in the gardens, refresher training for health professionals in care provision in nonsupine positions, the adoption of freedom of movement protocols, and engaging in active listening with service users are just some of the strategies that could be employed to foster change.

The elaboration and distribution of illustrated fact sheets could also help to fill information gaps. This material could be produced in other languages to minimize communication problems with African, Syrian and Bolivian patients who have increasingly used the services in recent years.

The findings show that mutual support between birthing women, information obtained from social networks and social media, and the previous elaboration of a birth plan to demonstrate knowledge of care practices and rights play an important role in ensuring that women enjoy relative freedom of movement and choice of position during labor and birth.

Author’s contributions

All authors participated actively in all stages of the elaboration of this manuscript.

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Referências


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