The Senses of Birth exhibit is an innovative educommunication action that seeks to contribute to a change in culture regarding childbirth in Brazil, giving incentive to normal childbirth and making a case for the reduction of unnecessary cesarean (C-section) rates. It is an immersive and interactive exhibition that articulates languages and techniques to raise awareness and instigate the general public, in a playful manner, to increase knowledge and promote a critical position on the subject. The article describes the strategies and devices used to raise the public’s awareness and involvement in the debate concerning childbirth care, as well as analyzes the effects and changes in the visitor’s knowledge and perception about childbirth. The results show considerable changes in opinion and perception favoring normal childbirth and an increase in knowledge related to forms of childbirth care and best practices, revealing the potential of this educational health strategy.

**Keywords:** Exhibition. Health education. Cultural change. Childbirth. Cesarian-section.
Introduction

Brazil records one of the highest Cesarean (C-section) rates in the world, 55.7%, second only to the Dominican Republic\textsuperscript{1,2}. In the private health sector, this rate reaches 83.0% of all childbirths\textsuperscript{3}. A technocratic and hypermedicalized obstetric and neonatal care model predominates in Brazil, reinforcing representations of labor and childbirth as risk or illness on the one hand, and of great pain and suffering on the other\textsuperscript{4-6}. Routinely used procedures devoid of scientific validity, such as the frequent performance of episiotomy, often without prior consent by the patient; the indiscriminate use of artificial oxytocin for augmentation of labor; and the use of painful procedures for baby expulsion during childbirth, such as the Kristeller maneuver, transform the obstetric scenario into a moment of suffering and provide the conditions to identify and acknowledge what is known as obstetric violence\textsuperscript{6}. Women treated at the Brazilian public health care system (SUS) more often have access to good health practices during labor and childbirth and are less frequently subjected to unnecessary interventions, such as C-sections with no technical justification, indicating the association between the interventions and commercial interests by the private healthcare sector\textsuperscript{4,5}. In addition, part of these practices are reinforced by the culture of practicality and consumerism, which leads many pregnant women to “choose” or be led to choosing unnecessary elective C-sections\textsuperscript{7}.

The country has not yet reached the recommended child mortality rates, nor has it achieved the United Nations Millennium Development Goals for 2015 to reduce maternal mortality by two-thirds. Child deaths most commonly occurs in the first month of life, especially during the first 24 hours of life, in a strict association with the quality of hospital care, where 98% of childbirths occur in Brazil\textsuperscript{8}. Maternal deaths, in turn, reflects the care and importance given to women in society, constituting a type of gender discrimination that pervades healthcare practices. The challenge to achieve the 2030 Sustainable Development Goals lies in the reduction of these avoidable and preventable deaths by improving access to general health care and qualifying health care to women and children\textsuperscript{9}.

Initiatives in public policies, such as the Rede Cegonha\textsuperscript{10}, and other organized by civil society seek to revert this scenario, with information and mobilization campaigns for humanized care in labor and childbirth. Nevertheless, the predominance of surgical childbirth is currently stabilized, and it has shown no falling trends since 2015 \textsuperscript{1}. Public policies depending on cultural changes may not be restricted to divulging information. They also require raising awareness actions that lead to critical reflection. Based on this scenario the educommunication research intervention Sentidos do Nascer (Senses of Birth - SoB) exhibition was developed in 2015, to contribute to culture change concerning childbirth in Brazil, encouraging normal delivery and reduce unnecessary C-section rates. Immersive and interactive, the exhibition was designed to inspire visitors to learn, instigating them in a playful manner, enthraling them with esthetics, making them wonder about how C-sections have become commonplace, and the consumerist behavior that has been making headway in several dimensions of human existence.
By articulating different and potent fields, such as communication and education, educommunication has become a field of knowledge for cultural transformation. Its communicative ecosystem approach, focusing on social participation,11 has proven to be a promising contribution to the action and analysis of museum practices12.

The educommunication approach to museums and exhibitions is considered in the Brazilian context in which visitations to museums and exhibitions are not a popular tradition or a widespread cultural habit, partially due to the concentration of these initiatives in few cities with limited audience outreach. A survey by the Brazilian National Museum Institute (IBRAM) reveals that 79% of Brazilian cities do not have museums, and that, even in capitals with a broad range of cultural facilities, a large part of the Brazilian population does not visit them.13Thus, some museums seek alternative strategies to circulate their collections and exhibits, by promoting itinerant exhibits and structuring them on mobile facilities to allow access in public venues, such as squares and parks. Considering this challenge, the SoB was structured in four containers to travel to different cities and set up in busy public places(h).

Another well-known challenge faced by cultural actions, such as scientific dissemination and perception-changing interventions, is the assessment of its effects14. Cultural education involves a complex process of exchanges and learning that pervade different aspects of our lives, including emotions, and measuring the effects of specific experiences is not easy. Analysis are usually limited to the number of actions and the audience reached, and rarely involve the audience experience or aspects that affects or not the visitors. This was one of the challenges of the SoB project, conceived as a research-intervention designed to assess the effects on the visitor’s perception of labor and childbirth, in addition to assessing its potential for replication in different areas of the country.

This article seeks to describe the strategies and devices developed to raise audience awareness and involvement in the debate about the obstetric and neonatal care model in Brazil, as well as the assessment methodology and results of its effects on visitors’ knowledge, perception, and preferences regarding labor and childbirth.

Methodology

The Senses of Birth exhibition was structured in 2015 as a partnership between the Minas Gerais Federal University (UFMG) and Belo Horizonte City Administration. It was funded by the government grant on Prematurity Prevention issued by the National Council for Scientific and Technological Development (CNPq), the Brazilian Ministry of Health and the Bill and Melinda Gates Foundation in 2013, as a challenge for the health policy priority agenda.

This is an educommunication research intervention project involving a multidisciplinary team of artists, experts in communication, design and theater, educators, medical doctors, nurses, epidemiologists, historians, museologists, psychologists and journalists, who worked together to develop an interactive exhibition with an innovative approach to the topic, exploring touching and playful languages capable of generating powerful educational actions, which could be reproduced and inspire other actions. Considering this complexity, and aiming to inform, engage, and arouse emotions, SoB was
structured as an immersive experience, raising the visitors’ awareness of the need to change labor and childbirth care and to improve healthcare practices for women, babies, and their families. The exhibit design was inspired by the debate about the interaction between the audience and exhibits, aimed at involving the subjects. It combines different languages as digital art and theatrical techniques and media (video, photography, sets, written panels), to make the visitors experience different sensations and lead them to action. One of the assumptions adopted is that art is capable of promoting an esthetic experience, influencing the visitors to a critical reflection. This approach was linked to actions involving different audiences in initiatives such as conversation rounds and discussion groups, promoting a participative experience of dialog and knowledge and experience sharing.

Development and strategies for the intervention

Exhibition description

The Senses of Birth exhibit is structured in a circuit consisting of five sections. At the entrance, a section named “Pregnancy”, where visitors see themselves in a large TV screen with the projection of a baby image on their bellies, positioned as ready to be born. While the sensor takes pictures for visitors to share the news at the social-network, the exhibition mediator congratulates them and hands over a Birth Plan, an informative brochure that presents the possibilities of good practices and rights during childbirth care. A sticker with the image of the baby is placed on the visitors’ bellies to ensure they remain ‘pregnant’ throughout the exhibition.

Then the and visitors are directed to a second area, the “Surgical Maternity Hospital Convenience Store”, a caricature of the commercial aspects of childbirth healthcare. Supermarket shelves with “irresistible” products (such as “Baby Big Brother”, “Feelnothingpills”, “Mammy Beauty Spa”, and “Burka Tits”) and special offers of planned births are ironically offered to visitors, inspired by actual offers available in commercial advertising.

After that, visitors arrive to the third area, “Controversies”, where they are exposed to the diverging opinions of fictional characters who try to influence pregnant women about the best form of childbirth and a debate about normal delivery and C-sections, expressing arguments and values. Videos recorded with actors are played in real size on six TV screens and simulate a conversation involving the child’s mother, the grandmother, and father, together with a friend who advocates for C-sections and another who favors normal delivery, a “cesarist” doctor and a “humanized childbirth doctor”, the doula, the obstetric nurse, and the pediatrician.
Figure 1. Gestation

Figure 2. Convenience store
After participating in the debate, visitors are directed to a room simulating a large uterus, where they have sensory experiences of birth: they feel the “placenta-sofa”, hear the mother’s heartbeat, get feel and play with the umbilical cord, and pass through the birth canal, listening to the voice of a baby who asks the mother to be patient and to wait for the birth at the right time.
Then they go out through a simulated vagina and after this experience they are met by an enormous image of a happy and warm mother, expecting them with her arms open. In the last area, “Conversation”, visitors find information panels and videos, a place for possible meetings and experience exchanges, part of the exhibition strategy to encourage curiosity and the search for information.

Figure 5. Conversations

Visitors are able to increase their perception about their own experience and point of view about the issue based on texts, charts, and images on the subject of time, the history of birth, normal delivery, C-section in the world, in Brazil, in the states and in the main maternity hospitals in the city where the exhibition is taking place; about labor and childbirth from the point of view of the mother and the baby; and obstetric violence. In this area, flowing curtains fill the spaces with inspiring images. This is also a space for receiving people who await their turn to participate in the exhibit, interact with mediators, watch videos, and are motivated by the reactions of people leaving the exhibition. The entire visit takes approximately 50 minutes, including the 20-minute circuit through the 4 sections, in groups of 10 people accompanied by mediators, the first receipt and conversations after the visitation, enabling exchanges, interaction, and dialog among visitors with different experiences and points of view.
Interaction modes at the exhibition

Inspired by Wagensberg’s total museum experience\textsuperscript{15}, we explored parallel interactions with the audience, in the blog, and in social medias, considering the increased potential to document and advertise the strategy to ensure the possibility of virtual revisiting part of the exhibition and sharing questions and experiences. Thus, the site “www.sentidosdonascer.org” contains the exhibition contents, information, programs, articles, and news related to labor and childbirth. SoB also uses other interactive resources other than the usual touchscreen and gadgets\textsuperscript{16}. The very setting and environment, and the interactions with mediators during reception, in sharing or in entertaining the visitors, are well-explored resources. The mediators’ activities may make the difference in visitors’ involvement, and the relationship established between them is key for the visit. There is no single formula to charm visitors and, regardless of how each mediator behaves, the situations raise the development of an awareness/provocation path.

Two strategies stood out in the exhibition: irony and controversy. The “Surgical Maternity Hospital Convenience Store” is a parody of the labor market, with caricatured products and merchandising. It is designed to engage visitors in the debate, encouraging them to think about the topic and to take sides. Irony is a language that incites changes in thinking, causing people to rethink our illusions and prejudice. While some forms of information transmission and explanation required receiving or assimilating knowledge without reflecting upon it, irony generates doubts about interpretation: “Did I hear it right?”, “Are they serious?”. The products exposed on the store shelves are attractive and the offers many times represent the daily consumption of superfluous items. As some of the absurd ideas are explained, the provocation becomes clear. The visitation in groups establish a shared perplexity, with reactions and discussions. Mediators’ actions are essential in these situations. Such actions may be defined as horizontal interactivity, as they depend on the group, on strangeness or laughter reactions, or other manifestations by the audience. Mediators acting as store clerks may add on to the provocations or relieve tensions with their considerations, without approval or disapproval of the questions raised: “this is only a joke, a criticism we will discuss next in the exhibition.”

In the “Controversy” section, the interaction forms bring forth a variety of perspectives and discourses with which people identify or to which they oppose. Mapping socio-technical controversy is a strategy that has been used in studies about sciences, to understand issues in which social, natural, or technical aspects intertwine\textsuperscript{10}. This approach allows one to observe how different perspectives clash, articulate, complement one another or diverge. In addition to being a methodological strategy for the analysis of scientific and technological problems, it is also a powerful educational strategy, and, therefore, is quite often used in educational games, exhibitions, and museums\textsuperscript{17,18}. The diversity of contradictory arguments makes it easier to identify (and to raise awareness) from each one’s point of view, and diverging or opposite formulations to be taken into account. This makes revising and enhancing opinions possible.

\textsuperscript{10} The socio-technical mapping of controversy is an approach that seeks to explore different perspectives and interests that interact with scientific and technological issues. This methodology was developed within the field of social studies, science, and technology, in which it is not possible to decide beforehand what is considered to be social and what is considered to be technical.
In general, exhibits about labor and childbirth portray the biomedical discourse, reducing it to its physiological aspect. Such perspective entails a biopolitical project that reinforces medical intervention on social behavior, as well as the domination of the female body and of sexual and reproductive rights. Even when exhibitions about labor and childbirth include historical and cultural aspects, they are usually presented in an allegedly neutral and/or folkloric manner, distant from controversial macro or micro political issues. Differently, the Senses of Birth exhibition brings to light the socio-political aspects and questions social representations of labor and childbirth, exploring disputes within the health field, among professional categories, about gender, ethnic and racial perspectives, about the market’s interests, trends, consumerism, outdated practices, scientific evidence, traditional knowledge, and dominant ideologies.

Despite being critical of the excessive number of C-sections, of the commercialization of childbirth, and of violence against women, the Senses of Birth exhibition does not leave out dissonant voices. The character “Dr. Cesário” embodies the discourse of traditional medical practice. The character “Friend” recommends choosing a maternity ward based on its hospitality services, expressing the convenience and allure of consumerism. Fear of childbirth pains, expressed by the character “Mother,” alternates with the words of the father, the pediatrician, the obstetric nurse and the doula, who warn about taboos and invite pregnant visitors to assign new meaning to the birth experience.

In addition to these exhibition design strategies for audience awareness and engagement, this itinerant exhibition met SoB’s inclusive perspective as a way to facilitate the access of visitors who usually do not go to museums or exhibitions. The exhibition also provides accessibility strategies to enable the inclusion of people with hearing loss and physical limitations.

Reach and repercussion of the intervention

SoB was set up in seven places in 2015: Belo Horizonte/MG (campus UFMG, Municipal Park and Shopping Boulevard); Rio de Janeiro (Tiradentes Square); Niterói (Caminhos de Niemeyer); Ceilândia (Praca do Rolo), and Brasília (Conjunto Nacional and Exhibition Pavilion during the 15th National Health Conference), as well as in Belo Horizonte in 2016, during the Pregnancy Fair and at UFMG’s Health campus (School of Medicine, Nursing School, and University Hospital). The exhibition had the support of the local government by means of the Health Departments and was successful in audience and media coverage: over 31,000 visitors in the first year. It had an average of 180 visitors per day, which is the frequency of well-structured museums. In addition, two copies of the exhibition were reproduced and installed, one of which at the Mangabeiras Park in Belo Horizonte, funded by the Ministry of Health’s InovaSUS grant, and the other at the Rio de Janeiro City Health Department at the Ministry of Health Cultural Center in Rio de Janeiro. These last two are articulated as permanent education actions for health professionals in the public health system, which we will discuss below.

(k) Pregnancy Fairs take place in several Brazilian cities to market products for pregnant women and babies. Because it was impossible to set the exhibition inside the fair, we were granted permission from the city administration to divert traffic and use one of the streets that give access to the site.

(l) Articles in several newspapers and pieces in high audience TV shows, such as Jornal Nacional (https://www.youtube.com/watch?v=CYAAR538EuM) and Bem Estar (https://www.youtube.com/watch?v=n2sy7DGZsuk&t=8s).

(m) This has not yet been opened, and is currently awaiting a complex licensing process by the Fire Department, as it occupies a Historical Heritage listed building.
Visitors and mobilization

The exhibition allowed for many encounters, conversations, and reinforcement of support systems, fostering meetings, local women’s movements, and organizations that support this issue, catalyzing processes. Educational and mobilization activities were performed in all editions of the exhibition, such as conversation rounds with pregnant women, yoga and Shantala massage, book signing, belly painting and local initiative exhibits.

The partnership with the Belo Horizonte Department of Education has allowed for advertising within the public school system and for the integration with the Museum Circuit Program, providing transportation for groups of visitors.

To receive young audiences we created a small space next to the entrance with materials about labor/childbirth for children (n) to allow for parents who visit the exhibition with their young children to approach and explore the topic with them. The importance of children participating in the exhibition is also due to the challenge of cultural transformation with the construction of a reference of normality for childbirth, as opposed to the naturalization of surgical births, as is currently widespread. When school groups schedule their visits to the exhibition, they are informed that visits are more fruitful for children 10 years of age or older and teenagers, especially students in the Youth and Adult Education Program (EJA). Considering the various age groups of those in the EJA program and the limited access to cultural events of the type, this public interacted with the exhibition in an extraordinary manner, and, to receive this audience, we tried, whenever possible, to extend the exhibit until 10 p.m.

Another group of visitors to be mentioned is that of undergraduate and graduate students, and that of residents and health care professionals working with primary health care, specialized health care and maternity hospitals. Many had no knowledge of the important contents for their action, such as scientific evidence and the WHO’s and the Ministry of Health’s recommendations, which are quite different from the usual practices performed in a non-critical manner. Most of them were interested in how to approach taboos about childbirth, and they took advantage of the access to creative materials that could be useful in dealing with the change to the current obstetric model.

To meet permanent health education requirements, a partnership was made with the Health Education Management, issued by the city Department of Health in 2016, offering awareness workshops designed for primary healthcare professionals in the SUS-BH system. These workshops were combined with participation in the exhibition, screening of the movie “Renascimento do Parto” (Birth Reborn), and structured discussion rounds about life and work experiences. The meetings encouraged participation, critical surveys and analysis, and motivation of professionals to perform in their workplaces. This initiative involved 564 professionals and achieved national recognition by the InovaSus(o) award in 2016 and the Health Education Innovation Laboratory award in 2018(p).

Table and chairs on EVA plates, with games and books, such as “Que cegonha o quê?” (No stork here!) (2014), published by Universidade das Crianças. (http://www.universidadedascrianças.org/)

Qualification of mediators and facilitators

As an interactive exhibition, one of the key strategies was preparing mediation teams at each location, especially to promote anchoring/clustering at each site. Thus, partnerships were formed with universities in each city where the exhibition visited, in connection with university projects and with supporters to act as mediators or to work in advertising and local mobilization activities. For this purpose, an online course was structured for these teams’ formative process, 30 hours, at UFMG’s Virtual Learning Environment. Exhibition materials and aesthetic and pedagogical guidelines were used: sensibility for receiving people, interaction, creation, controversy, and debates. This course was administered for 120 students and, based on this experience, we structured the qualification program for humanized care to labor and childbirth in a 30-hour online course and 16-hour practice, offered as a discipline in the Health Promotion and Prevention of Violence Professional Master’s program at the Faculty of Medicine, UFMG.

Exhibition results: Assessment methodology

To assess the effects of the exhibition on the perception and knowledge of visitors, we combined the multi-methodological strategies listed below:

1- Totem at the exhibition exit, where visitors could record their opinions about normal delivery before and after the visit, using a Likert scale (terrible, bad, no opinion, good, excellent).

2- Interview with a sample of 5% of all visitors (general audiences) before, and of 5% after the visit, using a structured questionnaire, to analyze visitors’ socioeconomic profile, their perception about normal delivery, including fear, pleasure, and safety, and their knowledge about good practices during childbirth care.

3- Interview with the 1,287 pregnant women who visited the exhibition in 2015, using a structured questionnaire, to analyze visitors’ soci-economic profile, their knowledge about good practices during childbirth care, their current and previous experience on labor and childbirth, and their feelings about the exhibit.

4- 22 focal groups, with interest groups: pregnant women, healthcare professionals, teachers, students, in a total of 139 participants.

5- “Non-audience” survey, that is, people who were passing by, but did not visit the exhibition, to determine, by sampling, their socioeconomic profile, cultural habits, and perceptions on the issue of labor and childbirth.

6- Analysis of the repercussion of social media posts about the exhibition.

7- Analysis of testimonies registered by the visitors after participating at the exhibit

8- Analysis of the childbirth experience of women who visited the exhibition while they were pregnant (follow up). By email or over the phone, 650 (50,5% of respondents in item 3) answered the questions several months after having visited the exhibition.

This survey was approved by UFMG’s Ethics Committee under number CAAE-23072.027258-2018-43.
Results

In general, the SoB exhibition contributed to improve knowledge and change in perceptions and preferences about normal birth, based on assessments using different approaches. A synthesis of the results is provided herein. Methodological details and results are available in specific publications\textsuperscript{20-22}.

Out of a total 22,621 visitors in 2015, 17,501 (77.9%) rated the exhibition immediately after participating in it. The opinion about normal birth changed for 77.4% of the participants after visiting the exhibition. The percentage of those who rated normal birth as “excellent” increased from 42.0% to 81.4% after the intervention, and negative opinions about normal birth (“terrible” = 4.5 %, “bad” = 7.7%, and “no opinion” 10.1%) decreased from 22.9% to 3.7%; 78.0% of the visitors were females; 58.3% were between 25 and 49 years of age, 31.4% were 24 years of age or younger, and 9.5% were 50 years of age or older; 21.6% of the visitors stated they had a household income under twice the minimum wage; 33.0% between two and five times the minimum wage; 22.9% between five and ten times the minimum wage, and 14.2% had a household income higher than 10 times the minimum wage. The majority of the interviewees were college graduates (74.8%), 19.9% were high-school graduates, and 4.9% had not attended high school; 50.9% of the interviewees classified themselves as black, and 47.8% as white. The pregnant women group had a similar income and skin color profile, but had lower education levels. This group’s age bracket was concentrated between 20 and 34 years of age (76.5%), and 74.6 had access to health insurance.

The study showed that knowledge about the WHO and the Department of Health recommended practices due to scientific evidence increased significantly after visiting the exhibition, especially among pregnant women, increasing from 40% to 82.5%. Visitors’ knowledge about labor and childbirth care, such as the risks posed by C-section, recommended practices of delivery attention, and obstetric violence increased. There was also a significant change in visitors’ perception of normal delivery, with an increase in associated feelings and sensations, such as happiness, safety, achievement, trust, and a significant reduction of associations with pain and suffering. Positive perception of normal delivery increased from 46% to 84%. Even considering that a large part of the visitors were already interested in normal delivery, the positive assessment (“good” and “excellent”) of vaginal delivery increased from 77.9% to 96.8% after the intervention.

Based on statements made by focal groups on the comment logs and social medias, as well as on interviews with women who participated in the exhibition during their pregnancy after they had given birth, we observed that many mothers assigned new meaning to their experience and started to realize how badly assisted and disrespected they had been during pregnancy and labor. And that many of them had been victims of violence during childbirth, although only 12.6% identified it is as such\textsuperscript{5}.

We analyzed 3144 spontaneous testimonies spontaneously written by the visitors on the exhibition book, right after their participation at the exhibit. They were grouped in 5 categories, based on their recurrence, as follows: compliments (61,5%); maternity, feminine power and divinity (21,9%); information /critical thinking and reflection (12,1%); personal experience (3,8%); criticism and suggestions (0,8%).
Enlightening and so relevant. The naturality of giving birth must be preserved in the way more and best health to our kids and moms. Priority for normal birth! (Maria)\(^{(q)}\)

In opposition to the association of normal birth to the “return” to nature, messages associated the influence of commercial interests and misinformation, taboos and on the other hand, acknowledgement and consciousness.

Give birth is normal, cesarean is capital. (Nina)

As a man, experiencing the exhibit leads us to comprehend that the final decision is for women, always. I hope that all women think about having a normal birth. (Pedro)

It was really hard to, after 20 years, wake up to the reality that I suffered violence in the most important and beautiful moment of my life. (Tania)

Senses of Birth invested in an interactive and sensorial format and touched the visitor, some express in testimonies highlighting the emotional experience: “...I was thrilled” (Marina), “...I cried...” (Francisco), “...I was reborn” (Raul).

I had 3 cesareans and never before thought about how my babies could have felt while been taken out of my uterus. If I had been informed with so quality and safe information as I received here it could have been different. Congratulations to inform new mothers to come! (Rosilene)

I wonder if one day all obstetricians will share this humanitarian sense and do not merchandise or treat this magic and divine moment of life with violence. (Meire)

Many women, as they experienced the exhibition, asked what they could do so that other women could make better, more informed, and more empowered choices. Their roles as opinion leaders were pointed out, regarding how the problem should be faced and the citizenship challenges in building appropriate public policies and disseminating quality information. Therefore, beyond the dissemination of knowledge and the thinking it provoked, SOB contributed to promoting respectful care based on evidence, in turn strengthening the territory involved in this issue, in articulation with existing public policies, engaging local actors, users, health councils, and workers/agents in the cultural area.

Interaction through social media, which reached 68,204 followers on Facebook and 5,229 followers on Instagram, is an assessment that reveals significant social mobilization. During the years 2015 and 2016, 1,250 posts were made, with 210,722 interactions, including 34,442 shared posts, and a total viewing of 2,604,683.

\(^{(q)}\) The names are changed to preserve the anonymity of the authors.
Finally, the analysis of the childbirth experiences of pregnant women who visited the exhibition revealed that the majority (55.2%) used a birth plan, 76.7% had access to non-pharmacological means for pain relief during labor, 27% had the support of a doula, and 48% had the support of an obstetric nurse. The C-section rate in this group was 46%, considerably lower than the rates found in the complementary health care system (84.0%), taking in account that most of them (74.6%) had health insurance. A 7.4% lower prematurity rate was also identified, in comparison with the general Brazilian rate (12.5%) during the same period¹.

**Final considerations**

Although multi-methodological strategies had been sought to evaluate the effects of the exhibition, many subjective aspects, with variable intensity, are involved in the cultural change purpose and were not considered, as it is practically impossible to include all aspects and subjective and cultural influences in full. For instance, emotion and crying, so frequent among visitors at the exhibition exit, have so many reasons and meanings that counting tears would not help to decipher them. Being aware that methods for assessing the effects have limitations, we sought to build markers that helped to size and understand some of the exhibition’s effects on visitors.

The results identified the change in opinion and the acquisition of knowledge about the topic and, therefore, revealed this exhibition’s potential as a cultural transformation instrument. Social mobilization initiatives such as this contribute to expand knowledge and publicize information about the issue, and to support the dissemination of good practices in care for labor and childbirth. This initiative may be replicated to support a change in culture, to reduce the unnecessary C-section rates and their damaging effects on women’s and children’s health. In addition to this concrete experience’s results about the change in perception about labor and childbirth, we consider that the educommunication strategies developed in this project, such as the combination of different languages and supports, to arouse different sensations in visitors; the esthetic carefulness to ensure that the created situations are moving, funny, and thought-provoking; the use of controversy and irony; as well as the systematic assessment of its effects, have proven to be powerful tools in initiating public debate on this and other pressing issues for Brazilian society.

These strategies deserve attention by those interested in non-formal and formal education processes, as well as by communication and education scholars, not only because they may be reproduced and unfolded, or they may inspire other similar actions, but also because they contribute to the understanding of the formative process complexity in the dynamics of cultural transformation.
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All authors actively participated in all stages of manuscript preparation.

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Referências


Senses of Birth: An interactive and provocative exhibition to change the culture ... Oliveira BJ, et al.

A exposição Sentidos do Nascer (SDN) é uma ação de educomunicação inovadora que visa contribuir para mudança de cultura sobre o parto e nascimento no Brasil, incentivar o parto normal e apoiar a redução das elevadas taxas de cesarianas desnecessárias. Trata-se de uma exposição imersiva e interativa que articula linguagens e técnicas para sensibilizar o grande público e instigá-lo, de forma lúdica, a conhecer mais e se posicionar criticamente sobre a temática. Este artigo descreve as estratégias e dispositivos desenvolvidos para sensibilização e envolvimento do público no debate sobre o modelo assistencial ao parto e nascimento, bem como a metodologia utilizada para avaliar os efeitos e mudanças no conhecimento e percepção dos visitantes. Houve considerável mudança de opinião e percepção e ampliação do conhecimento sobre o parto e nascimento, revelando o potencial dessa estratégia em saúde.


La exposición “Sentidos del nacer” es una acción de educomunicación innovadora cuyo objetivo es contribuir con el cambio de cultura sobre el parto y el nacimiento en Brasil, incentivar el parto normal y dar apoyo a la reducción de los elevados índices de cesárea innecesarias. Se trata de una exposición de inmersión e interactiva que articula lenguajes y técnicas para sensibilizar al gran público e instigarlo, de forma lúdica, para que conozca más y se posicione críticamente sobre la temática. Este artículo describe las estrategias y dispositivos desarrollados para la sensibilización y el envolvimiento del público en el debate sobre el modelo asistencial al parto y al nacimiento, así como la metodología utilizada para evaluar los efectos y cambios en el conocimiento y percepción de los visitantes. Hubo un considerable cambio de opinión, percepción y ampliación del conocimiento sobre el parto y el nacimiento, revelando el potencial de esta estrategia de salud.


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