# Implementation of the São-Borjense Mother-Baby Strategy: Action research\*

Implementación de la Estrategia Madre-Hijo São-Borjense: investigación-acción

Implementação da Estratégia Mãe-Bebê São-Borjense: pesquisa-ação \* The article originated from the master's thesis in Maternal and Child Health titled "São-Borjense Mother-Baby Strategy."

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### Abstract

**Objective:** To describe the process of conception and implementation of the São-Borjense Mother-Baby Strategy.

**Materials and method:** This is an action research study developed between March 2018 and October 2019, from a simple random sampling resulting in the participation of 5 managers, 27 health professionals, and 23 pregnant women from the maternal and child health care network in the municipality of São Borja, Rio Grande do Sul, Brazil. The participants of the focus groups guided the identification and survey of data; thematic content analysis was used to categorize data.

**Results:** Based on a systematic and collaborative plan of intervention the following path was defined: i) conception of the Strategy and agreements with local managers; ii) sensitization of the actors and identification of demands, through focus groups with managers, professionals and health care users; and iii) implementation of actions of the São-Borjense Mother-Baby Strategy.

**Conclusions:** Based on the course taken from the conception to the implementation of the Strategy, we conclude that leading innovative processes and transposing traditional models of intervention is possible through interaction, sharing and translation of knowledge and practices among academy, agents, managers, professionals and health care users.

*Descriptors:* Perinatal Mortality; Perinatal Care; Maternal Health; Maternal and Child Health; Qualitative Research (source: DeCS, BIREME).

### Resumen

**Objetivo:** describir el proceso de concepción e implementación de la Estrategia Madre-Hijo São-Borjense.

**Materiales y método:** estudio de investigación-acción, desarrollado entre marzo de 2018 y octubre de 2019, a partir de un muestreo aleatorio simple que contó con la participación de 5 gestores, 27 profesionales de la salud y 23 mujeres embarazadas de la red de atención de salud materno infantil en el municipio de São Borja, Rio Grande do Sul, Brasil. La técnica de grupo focal fue empleada para la identificación y recolección de datos, mientras que el análisis de contenido temático permitió la categorización de estos.

**Resultados:** a partir de un plan sistematizado y colaborativo de intervenciones, fue posible definir la siguiente ruta de trabajo: i) concepción de la Estrategia y acuerdos con gestores locales; ii) sensibilización de los actores e identificación de demandas a través de grupos focales con gestores, profesionales y usuarios de la salud; iii) implementación de acciones de la Estrategia Madre-Hijo São-Borjense.

**Conclusiones:** con base en la ruta tomada desde la concepción hasta la implementación de la Estrategia, concluimos que liderar procesos innovadores y transponer modelos tradicionales de intervención es posible a través de la interacción, el intercambio y la traducción de conocimientos y prácticas entre agentes, academia, gestores, profesionales y usuarios de la salud.

*Descriptores:* Mortalidad Perinatal; Atención Perinatal; Salud Materna; Salud Materno-Infantil; Investigación Cualitativa (fuente: DeCS, BIREME).

### Resumo

**Objetivo:** descrever o processo de concepção e implementação da Estratégia Mãe-Bebê São-Borjense.

**Materiais e método:** trata-se de uma pesquisa-ação, desenvolvida entre março de 2018 e outubro de 2019, a partir de uma amostragem aleatória simples que contou com a participação de 5 gestores, 27 profissionais da saúde e 23 gestantes da rede de atenção à saúde materno-infantil do município de São Borja, Rio Grande do Sul, Brasil. O grupo focal guiou a identificação e o levantamento dos dados, e a análise de conteúdo temática permitiu a categorização dos dados.

**Resultados:** a partir de um plano sistematizado e colaborativo de intervenções, foi possível o seguinte percurso: i) concepção da Estratégia e acordos com gestores locais; ii) sensibilização dos atores e identificação de demandas, por meio de grupos focais com gestores, profissionais e usuários da saúde; iii) implementação de ações da Estratégia Mãe-Bebê São-Borjense.

**Conclusões:** com base no percurso transcorrido da concepção à implementação da Estratégia, conclui-se que protagonizar processos inovadores e transpor modelos tradicionais de intervenção é possível pela interação, pelo compartilhamento e pela tradução de conhecimentos e práticas entre agentes, academia, gestores, profissionais e usuários da saúde.

Descritores: Mortalidade Perinatal; Assistência Perinatal; Saúde Materna; Saúde Materno-Infantil; Pesquisa Qualitativa (fonte: DeCS, BIREME).

#### Introduction

Currently, public policies aimed at a comprehensive care of women and children's health are among the priorities of the Brazilian government regarding health. Within this context, the first axis of the National Policy of Integral Child Health Care (NPICHC) stands out (1), as it aims to provide qualified care during pregnancy, labor, birth, and for the newborn, through improvements in access, coverage, and humanization of obstetric and neonatal care. It also aims to reduce maternal and child morbidity and mortality, reduce cesarean rates, promote good practices in labor and birth care, and guarantee sexual and reproductive rights, among other priorities.

Regarding childbirth care, excessive medicalization is one of the major maternal health problems in Brazil. In addition to unnecessary interventions with few criteria, which result in high maternal and infant mortality rates, 90% of births are institutionalized and performed by medical professionals (2, 3). A study shows that Brazil is experiencing an epidemic of elective cesarean sections, with indicators reaching more than 80%, which corresponds to the highest rate on the planet (4). These and other conditions disqualify the attention to delivery and birth, interfere with the resoluteness of care to the newborn, and hinder the humanization of health care processes (3, 4).

In addition to maternal mortality rates that are still high, early neonatal mortality is the component of infant mortality that has shown the smallest decline in recent years, reflecting, in part, the inefficiency of obstetric and newborn health care (1, 2). According to the World Health Organization (WHO), during the last decade, approximately 289,000 women worldwide lost their lives during pregnancy, childbirth and the puerperium, resulting in a global mortality rate of 210 maternal deaths per 100,000 live births (4).

From this reality, it is a consensus that qualifying obstetric care aimed at reducing maternal and infant mortality, as recommended by the wHO, will only be possible through the transposition of the hegemonic obstetric model and the translation of knowledge from theory to practice, based on prospective management and care strategies. For this purpose, it becomes urgent that health professionals commit themselves, based on new experiences, to a change of paradigms toward the adoption of innovative approaches that are more participatory and less interventionist, according to experiences already evidenced and proved successful in developed countries (5, 6).

In this process, the nursing professional has been expanding towards new spaces and attributions. Nurses play a leading role especially with regard to the identification of demands and the development of more proactive and affirmative interventions. Nursing care is, therefore, a fundamental component in the Unified Health System (UHS), in the sense of (re)thinking interventionist actions and potentiating initiatives that favor the expansion of good practices in maternal and child health at local, regional and national levels (7-9).

Recognizing the need to establish a new way of thinking and acting in order to overcome the hegemonic obstetric model, as well as the qualification of the maternal and child health care network in the municipality of São Borja, Rio Grande do Sul (RS), Brazil, this study aims to describe the process of the conception and the implementation of the São-Borjense Mother-Baby Strategy.

### **Materials and Method**

This is an action research study that encompasses an empirical process that begins with the identification and collection of data in the social context and then extends to the meaning of data and interventions in practice. This constructivist method considers, therefore, the needs identified in the collective in order to enable prospective strategies for improvement and transformation of participants' reality (10, 11).

The action research, which guided the constructivist path from the conception to the implementation of the São-Borjense Mother-Baby Strategy, was developed between March 2018 and October 2019, with the participation of managers, health professionals, and pregnant women in the maternal and child health care network at São Borja, a municipality with 70 thousand inhabitants located in southern Brazil (12). Each stage of the action research method was considered and thus will be detailed in the results of this study. The path comprised a movement of its own construction, generated by the active participation of the different actors involved in the process.

The technique used for data collection was the focus group, which guided the identification and collection of relevant data. A total of nine focus groups, three meetings for each group, were held on days and times previously scheduled with the managers, health professionals and pregnant women. In addition, each session was mediated by a professional nurse who assisted the researchers throughout. About ten participants took part in each focus group, which lasted from one to two hours. They were systematized progressively based on dynamics that contributed both to the identification and survey of demands related to maternal and child health in that municipality, as well as to the sensitization of the actors (managers, health professionals, and pregnant women), as foreseen by the action research methodology.

The following guiding questions were used to identify the demands of participants: How do you perceive maternal and child health in our municipality? In your opinion, what are the main strengths and weaknesses related to maternal and child health in our municipality? What ideas do you consider relevant to qualify maternal and child health in our municipality?

The focus groups included five local managers, 27 health professionals, and 23 pregnant women from 15 Family Health Strategy (FHS) teams, selected from a simple random sampling. Seven nurses, 14 nurse technicians, 4 community health agents, and 2 obstetricians were among participating health professionals. They were selected based on the following criteria: managers, to be acting in the local health management for more than two years; professionals, to be acting in one of the FHS teams of the municipality for more than two years; pregnant women, to be actively participating in the prenatal meetings organized by the FHS teams. The two-year professional experience requirement for managers and professionals, as inclusion criteria, was due to a municipal work contract held during this period. Exclusion criteria were: managers and health professionals on vacation, on sick leave or unavailable for participating in the various stages of the research, as well as pregnant women under 18 years.

It is noteworthy that the focus groups with pregnant women were held concurrently with the meetings of pregnant women in FHSS, based on the question: How do you perceive the maternal and child health care in your city? Of the total number of pregnant women invited, based on previously established inclusion criteria, 23 answered affirmatively to the invitation and attended the previously scheduled meetings.

The technique used to analyze the data was content analysis, which consists of discovering the nuclei of meaning that make up a communication. In the first stage, called pre-analysis, an exhaustive reading of the data was performed, followed by the organization of the material and formulation of hypotheses. Next, the material was explored, and the raw data was coded. In the third and last stage, the data were interpreted and delimited into thematic axes by the understanding of the meanings established (13).

The ethical and legal criteria involving research with human beings, as set forth by the Brazilian National Health Council, were considered. The research project was approved by the Research Ethics Committee of the Universidade Franciscana, under the number 2.993.555. To maintain the anonymity of the participants, the speeches will be identified, throughout the text, with codenames: Local Managers (GL1, GL2 ... GL5); Health Professional (PS1, PS2 ... PS27); Pregnant Woman (G1, G2, ... G23).

#### Results

The São-Borjense Mother-Baby Strategy established a new movement of care for pregnant women, newborns and postpartum women in the municipality's health care network. Based on a systematized intervention plan, developed in a collaborative and transforming way, it was possible to develop our own path, organized in three axes: i) conception of the Strategy and agreements with local managers; ii) identification of demands and sensitization of the actors through focus groups; and iii) implementation of the actions of the São-Borjense Mother-Baby Strategy, as shown in Figure 1.

## Strategy design: Agreements and alignments with local managers

The Strategy was conceived through periodic meetings with local managers in order to discuss and outline the path from conception to implementation of the proposal. After initial alignments and conceptions, the project was presented to the administration of the local hospital, to the Health Secretariat of the municipality, and to the City Council, in order to gain allies and supporters with a view to its subsequent implementation. In these initial meetings doubts were clarified and suggestions for the (re)organization of the maternal and child health network were welcomed, with the participation of the different actors involved in the process.

Next, action strategies were defined based on the demands identified for the execution of the proposal itself, as shown in Table 1. With the agreements

signed, partnerships and supporters were sought for the acquisition of "baby kits" as a gift for mothers who attended the required prenatal consultations and participated in the groups of pregnant women. It was understood that this would be an initial strategy to stimulate the protagonism of pregnant women. Table 1 expresses the main demands and their respective improvement strategies, based on the data analyzed and the agreements established.

**Figure 1.** Technology pathway from conception to implementation of the São-Borjense Mother-Baby Strategy, São Borja/RS, Brazil, 2019



Source: authors, based on the identified data and meanings.

Based on these agreements and referrals, the project was prepared and approved by local managers in its final version. It was then decided to publicly launch the project version of the Strategy in order to broaden its regional scope and mobilize health professionals around this common cause. The official launch of the São-Borjense Mother-Baby Strategy took place at the São Borja City Hall in June 2018, with the presence of all the entities/authorities involved, as well as health professionals and academics, and representatives of users. **Table 1.** Demands and respective improvement strategies.São Borja/RS, Brazil, 2019

| Nº | Demand   | Implemented Strategy  |
|----|--|---|
| 1  | Lack of targets and indi-<br>cators at the local level   | • In agreement with local managers, short-,<br>medium- and long-term goals were esta-<br>blished.   |
|    |  | <ul> <li>"Radar" was implemented for the monito-<br/>ring of indicators associated with maternal<br/>and child health.</li> </ul>   |
| 2  | Poor quality of obstetric care   | <ul> <li>Organization of the maternal and child<br/>health care and management network, based<br/>on integrated and articulated ordering flows<br/>between health services.</li> </ul>  |
| 3  | Fragmentation and<br>lack of communication<br>between the actors of the<br>health network services | <ul> <li>Holding periodic discussion meetings to recog-<br/>nize the functions and establish effective com-<br/>munication between the services that make<br/>up the maternal and child health network.</li> </ul>  |
| 4  | Low adherence of pregnant women to consultations   | <ul> <li>Qualification of the reception to the pregnant woman and her family, by the Family Health Strategy team.</li> <li>Delivery of a complete "baby kit" to pregnant</li> </ul>   |
|    |  | women.  |
| 5  | Inadequate physical structure  | <ul> <li>Adequacy of specific physical space for<br/>prenatal consultations.</li> </ul>   |
| 6  | Non-existence of pro-<br>fessional qualification<br>programs                                       | <ul> <li>Implementation of a permanent education<br/>program, with the support of the Health<br/>Secretariat, with themes associated with<br/>prenatal consultations, types of delivery,<br/>immunization, basic child health care, and<br/>other suggested demands.</li> </ul> |
| 7  | Inefficiency of the group of pregnant women  | <ul> <li>(Re)organization of the groups for pregnant<br/>women based on dialogical and meaningful<br/>approaches.</li> </ul>  |
| 8  | High number of<br>cesarean sections in the<br>municipality   | • Empowering the pregnant woman to choose the type of delivery.   |
|    |  | Obstetricians' loyalty and retention in the<br>health units, aiming at the systematic moni-<br>toring of pregnant women.  |
| 9  | Appointment scheduling   | <ul><li>(Re)organization of work routines.</li><li>Implementation of user satisfaction survey.</li></ul>  |
| 10 | Incomplete or non-<br>existent user records  | • (Re)organization of the local registration<br>system, based on pacts among the various<br>actors in the health network.   |
|    |  | Systematic dissemination of the results achieved.   |

Source: authors, based on the analyzed data.

## Sensitization of actors and identification of demands

In order to develop an unprecedented and collaborative proposal, nine focus groups were developed between May and September 2018, with three meetings each, with the aforementioned actors. In addition to collecting empirical data and identifying local demands related to maternal and child health, these meetings also aimed to promote awareness about the importance of the proposal for the health network of the municipality.

In the first focal meeting, local managers were invited by the coordinator to expose in an illustrative or descriptive way, on a blank sheet of paper, their

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understanding of good practices in maternal and child health. Afterward, each participant was invited to share his or her understanding in order to broaden the theoretical perspective around the proposed theme and outline prospective strategies. Subsequently, the coordinator presented the good practices recommended by the WHO and motivated the participants to reflect and induce improvements at the local level.

For the second focal meeting, the coordinator previously sent by e-mail documents related to the good practices discussed in the first meeting and asked participants to make a critical-reflective analysis about the strategy implementation process in practice. Based on the collective discussions, the analysis was deepened with scientific evidence and, subsequently, good practices were considered for the maternal and child health care services of the area.

In the third meeting, which took place three weeks after the second, the theoretical advances were discussed from the participants' perspective and the previously aligned strategies were validated. In each of the meetings, the participants' speeches were recorded for later analysis. The five managers, selected through a formal invitation, agreed to participate in the study and attended the three focal meetings. This commitment to improving maternal and child health in the municipality can be confirmed in the words of one of the managers:

> The attention to pregnant women and their families, from prenatal care to the newborn is fundamental to guarantee health, safety and quality in the process. We are in a process of improvement for the interaction and communication between primary care and hospital care, from the conception of the program (São-Borjense Mother-Baby Strategy). This project is being fundamental to strengthen this communication and enable the qualification of the network (GL4).

Subsequently, focus groups were conducted with 27 professionals from the 15 FHs of the municipality. These professionals, invited by formal invitation, were

organized into three focus groups, of three meetings each, previously scheduled and held at the Health Secretariat of the municipality. The meetings were held monthly, in a critical-reflexive way, similar to the first group, in order to identify demands, but also to sensitize the professionals about the necessary advances for the implementation of the São-Borjense Mother-Baby Strategy.

From this perspective, one of the demands identified was related to prenatal care for pregnant women, whose adherence was below that recommended by the Ministry of Health, with an impact on high rates of maternal and child mortality. It was found, from in-depth analysis of the data, that this weakness was associated, in part, with verticalized methodologies of intervention by health professionals, often conducted based on prescriptive and normative information.

Another weakness identified was related to the lack of bonding between the pregnant woman and the obstetrician, considering that each prenatal consultation was carried out with another professional. This weakness was also enunciated, later, by the pregnant women, who did not feel effectively accompanied in their prenatal care and without the possibility of choosing the mode of delivery.

> Pregnant women cannot form a bond with the obstetrician. They complain about this a lot. Each time another professional comes, and they feel insecure about this (PS19).

Another weakness identified referred to the place assigned for pregnant women care, for whom there was not a specific space. They were attended at the Family Health Units (FHU) or at the local hospital. In addition to the inefficient physical structure, the data analysis also showed a disqualified service by the health professionals and a certain mismatch between, for example, the authorization for sterilization and the actual delivery or cesarean section by the pregnant woman. It was verified that, not rarely, puerperae had new surgical interventions because the authorization for sterilization had not been provided in time.

> Here we still don't have an appropriate space for the care of pregnant women. We are always adapting ourselves and looking for places (PS7).

Pregnant women complain a lot about the delay in getting sterilization. Many times it happens that they have already had a baby and need a new procedure to have sterilization (PS13).

The three focus groups with pregnant women were conducted in the same sequence as the previous groups and revealed weaknesses related to the public health system. These shortcomings led many pregnant women to seek supplementary health care in other municipalities. Other pregnant women alleged delays in scheduling an ultrasonography, failures in the immunization system, impossibility to choose the type of delivery, and difficulties in traveling to the health units, besides the lack of obstetricians in the local health units. Others also suggested adjustments and improvements related to the visits of community health agents (CHA) and emphasized the need for a more proactive role of the CHA, especially in prenatal care.

> Here it would be necessary to have an obstetric doctor in each Health Unit. Sometimes we get there and there is no doctor. The Agents have an important function, but they don't always show up. There are many things that can be improved (G11).

For each demand identified and analyzed, improvement strategies were collectively discussed, with a view to implementing the São-Borjense Mother-Baby Strategy. These strategies were brought to the attention of local managers and validated by them. They agreed on new agreements related to the (re)organization of network points and the need to think about a maternal and child health center in the municipality.

#### Implementation of actions of the São-Borjense Mother-Baby Strategy

The implementation of the Strategy in the maternal and child health network of the aforementioned municipality took place in a constructive and collaborative way, with the participation of all actors involved in the initial stages. After raising the awareness of health professionals and pregnant women, as active players in the process of building the proposal and identifying the demands, we sought to set collective goals in the short, medium, and long term. Among the goals were: 100% adherence to the six recommended prenatal visits; 90% reduction in cesarean rates; 100% reduction in maternal and infant mortality; and recognition of the Mother-Baby Strategy in the national context.

In this direction, it was initially necessary to organize the network of care for pregnant women, the management and care processes, so that each professional and user felt as an integral part of the qualification journey of the maternal and child health care network. In this (re)organizational process of the network, the identified demands and the management and care strategies previously outlined by managers, professionals, and users were considered.

A priori, the sensitization of CHAS, considered as the "gateway" to the system, was carried out in order to promote mediation between the health units and pregnant women. The goal set for this was to reach 100% adherence of pregnant women to prenatal appointments, according to the norms established by the Ministry of Health (start prenatal care in the first trimester of pregnancy with at least six appointments for usual risk pregnancies). Additionally, for each goal achieved, pregnant woman should receive the complete "baby kit," sponsored by local investors, at the time of delivery.

In continuity, the teams of the basic units and FHSs were qualified through permanent education processes, with themes suggested by the participants and carried out with the support of the Municipal Health Secretariat. Themes associated to prenatal consultation, types of delivery, immunization, and basic child health care were addressed, based on the guidelines of the Ministry of Health.

The groups for pregnant women were qualified, aiming at the development of a new obstetric culture, through the protagonism of the pregnant woman as the author of her own choices and decisions. The groups for pregnant women, conducted through reflective approaches, resulted in greater commitment and empowerment, although complaints related to the delay of exams and the lack of an obstetrician in some health units have still been recurrent.

The "radar" was installed in the municipal laboratory, aiming at monitoring indicators associated to maternal and child health, such as the number of lab exams, number of deliveries, number of vaccines performed, and, in cases of premature birth, signaling to local managers. In addition, the local registration system and the user satisfaction questionnaire were qualified, aiming at the continuous qualification of the process.

Systematically, new pacts among those involved were necessary in order to strengthen initiatives, recognize advances, and consider the weaknesses along the way. The presentation of the partial results to the local managers raised the need to review the logistics and physical spaces of the network in order to delimit specific areas for the resolute care of mothers and babies' health.

### Discussion

The implementation of the Research Priorities Agenda of the Ministry of Health (APPMs, Axis 14 — Maternal and Child Health) requires managers and health professionals to transpose the traditional model of intervention by implementing horizontalized and participatory approaches (14). This movement of translation of knowledge and practices, however, will only be possible through political will and the cooperation of all social actors, as results already evidenced by the Paranaense Mother Network Program (15).

The Ministry of Health stimulates researchers, managers, professionals, and health users to take a leading role regarding the use of new tools and strategies of intervention, by overcoming reductionist and assistencialist practices. Health professionals need, from this understanding, not only to create new ventures/technologies, but to prospect sustainable projects, aiming at the expansion of access to health promotion, instead of only investing in pathological processes and interventions with high therapeutic cost. Transposing the focus of the disease and investing in people's health requires, therefore, proactive and entrepreneurial professional postures (16, 17). Likewise, overcoming assistance models and leading new theoretical and methodological approaches of intervention in the maternal and child health area requires, on the part of managers and professionals in general, the ability to establish innovative and systemic processes, with ethical principles and human and social values (18).

Studies have recognized that the area of maternal and child health has made important advances, especially in recent decades. Such advances are related, in particular, to the overcoming of the vertical and medicalized model of intervention. In this process, the pregnant woman has been gaining space and empowerment as the protagonist and author of her decision-making process (15-18). Despite the advances achieved, however, maternal mortality remains unacceptable, with about 280,000 maternal deaths worldwide each year. At the national level, maternal and perinatal results continue to be far below those in developed countries. Caesarian section rates in Brazilian private services reach percentages higher than 80%, which corresponds to the highest rate on the planet. Besides maternal mortality rates, that are still high, early neonatal mortality is the component of infant mortality that has shown the smallest decline in recent years and reflects, in part, the poor quality of obstetric care (1, 6).

There is evidence of an intense movement, both within Brazil and globally, to achieve the 2030 goals. While in Brazil the goal is to reduce maternal mortality to 20 deaths per 100,000 live births, at the global level the goal is 70 maternal deaths per 100,000 live births (3, 4, 18, 19). Then, the following question arises: How to achieve this goal in peripheral municipalities of Brazil and the world?

As this action research project indicates, the goal can be followed by joint efforts of people from various sectors/services, including universities, research centers, and others. It is an effort, therefore, not only made in government offices, but, behind the scenes of everyday life, to overcome interventionist models and allow for the translation of knowledge and practices through prospective and resolutive investigative processes. It is argued that this 'paradigmatic' movement can only be achieved by the protagonism of professionals who envision innovative approaches, that is, prospective strategies conceived and implemented with the participation of different social actors.

(Re)thinking the intervention model in maternal and child health, however, should be considered a task for all professionals and sectors of society, as well as a commitment of public agencies, according to the results demonstrated in this study. It was with this commitment that the managers of the municipality of São Borja sought initiatives and signed partnerships, following the example of a strategy previously implemented in another Brazilian municipality (15), to institute a new model of obstetric intervention. Although it is a long and complex path, initiatives such as those led by the aforementioned municipality can encourage other regions to follow similar paths.

One of the main weaknesses identified in the present study is related to the insufficient number of obstetricians to meet the demands of peripheral municipalities. From this point of view, studies demonstrate that nurse midwives, similarly to what has already been occurring in other European (Germany, Switzerland, United Kingdom, and others) and North American countries (Canada and the United States), has the potential to induce improvements in the obstetric area, especially through the expansion of medical coverage in remote areas (20-22). Another study demonstrates, in this same direction, that the outcomes of users accompanied by nurse midwives have presented equivalent and, in some cases, better outcomes than the care provided exclusively by physicians (23).

In this process of advances and improvements, the aforementioned European and North American countries can serve as an example for Brazil. In these countries, pregnancy and assistance to women during prenatal care, labor, delivery, and puerperium are considered in their natural physiological process, and not as an interventionist pathological process. In these countries, natural physiological childbirth is considered a priority attribution of nurse midwives, who have access to medical support whenever necessary. This management and intervention model, if strategically considered by Brazil, may result in the reduction of unnecessary obstetric interventions, lower costs for the national health system, and greater satisfaction for users, among other benefits (24, 25).

While recognizing that this study is of interest to the community of health professionals linked to maternal and child health, and describing an experience that can be reproduced in other peripheral municipalities, it is necessary to consider the cultural specificities of each region. The main limitation found in the implementation process of the São-Borjense Mother-Baby Strategy is related to the reduced number of physicians and nurses trained in obstetrics, which negatively impacted the comprehensive flowchart and users' satisfaction.

### Conclusions

Based on the path outlined from conception to implementation of the São-Borjense Mother-Baby Strategy, it is concluded that leading innovative processes and transposing traditional models of intervention is possible through the interaction, sharing, and translation of knowledge and practices among academic agents, managers, professionals and health users.

The proposal successfully implemented in São-Borja has shown that it is possible to lead innovative health management processes, as long as they are conceived and aligned in a collaborative way with the different actors and health services involved. It was necessary, along this path, to negotiate and overcome verticalized models of intervention, reduce unnecessary and uncritical interventions, and decrease the percentage of cesarean sections in order to achieve the proposed goals in the short and medium term. In this journey, the role of the nursing professional was critically important.

Developing new strategies of intervention in maternal and child health focused on local and regional demands, and based on participatory processes and constructivist methodologies, constitutes, in short, a prospective and transforming strategic tool. The proposal, however, cannot be considered conclusive, but rather in continuous (re)creation and qualification toward achieving the 2030 Agenda Goals.

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### References

(1) República Federativa do Brasil. Ministério da Saúde. Portaria N.º1.130.5 de agosto de 2015. https://bit.ly/3mBrwFM

(2) Brito MAMM; Macêdo MB; Brito JMM; Lima LHO; Pires CF; Macêdo PS; Campelo V *et al.* Obstetric profile of perinatal deaths on a capital of the Northeast of Brazil. Rev Bras Saude Mater Infant. 2019;19(1):249-257. http://doi.org/10.1590/1806-93042019000100013

(3) Kuruvilla S; Bustreo F; Kuo T; Mishra CK; Taylor K; Fogstad H *et al.* The Global strategy for women's, children's and adolescents' health (2016-2030): A roadmap based on evidence and country experience. Bull World Health Organ. 2016;94:398-400. http://doi.org/10.2471/BLT.16.170431

(4) Gomes SC; Teodoro LPP; Pinto AGA; Oliveira DR; Quirino GS; Pinheiro AKB. Rebirth of childbirth: Reflections on medicalization of the Brazilian obstetric care. Rev Bras Enferm. 2018;71(5):2594-2598. http://doi.org/10.1590/0034-7167-2017-0564

(5) Lansky S; Friche AAL; Silva AAM; Campos D; Bittencourt SDA; Carvalho ML *et al*. Birth in Brazil survey: Neonatal mortality, pregnancy and childbirth quality of care. Cad Saúde Pública. 2014;30(supl. 1):S192-207. https://doi.org/10.1590/0102-311X00133213 (6) Martins ACS; Silva LS. Epidemiological profile of maternal mortality. Rev Bras. Enferm. 2018;71(Supl 1):677-683. http://doi.org/10.1590/0034-7167-2017-0624

(7) Backes DS: Zamberlan C: Colomé J: Souza MT: Marchiori MT; Lorenzini EA; Salazar MAM. Interatividade sistêmica entre os conceitos interdependentes de cuidado de enfermagem. Aquichán. 2016;16(1):24-31. http://doi.org/10.5294/aqui.2016.16.1.4

(8) Silva MCN; Machado MH. Health and Work System: Challenges for the Nursing in Brazil. Ciênc Saúde Coletiva. 2020;25(1):7-13. http://doi.org/10.1590/1413-81232020251.27572019

(9) Carryer J; Adams S. Nurse practitioners as a solution to transformative and sustainable health services in primary health care: A qualitative exploratory study. Collegian. 2017;24(6):525-531. https://doi.org/10.1016/j.colegn.2016.12.001

(10) Manfra MM. Action research and systematic, intentional change in teaching practice. RRE. 2019;34(1):163-196. https://doi.org/10.3102/0091732X18821132

(11) Kinalski DDF; Paula CC; Padoin SMM; Neves ET; Kleinubing RE; Cortes LF. Focus group on qualitative research: Experience report. Rev Bras Enferm. 2017;70(2):424-429. http://doi.org/10.1590/0034-7167-2016-0091

(12) Instituto Brasileiro de Geografia e Estatistica. Brasil: Censo demográfico 2010. 2016. https://bit.ly/39XpfxD

(13) Bardin L. Análise de conteúdo. Lisboa: Edições 70;2015.

(14) Brasil. Ministério da Saúde. Agenda de Prioridades de Pesquisa do Ministério da Saúde. 2018. https://bit.ly/3dQiNcV

(15) Santos DR; Viera CS; Guimarães ATB; Toso BRGO; Ferrari RAP. Avaliação da eficácia do Programa Rede Mãe Paranaense. Saúde Debate. 2020;44(124):70-85. https://doi.org/10.1590/0103-1104202012405

(16) Vega CEP; Soares VMN; Nasr AMLF. Mortalidade materna tardia: comparação de dois comitês de mortalidade materna no Brasil. Cad Saúde Pública. 2017;33(3):e00197315.

https://doi.org/10.1590/0102-311x00197315

(17) Demiti JMG; Gasquez ASA. Rede Mãe Paranaense: análise comparativa da mortalidade materno infantil entre estado e município. Revista Uningá Review. 2017;30(1):6-10. https://bit.ly/3d3OLmX

(18) Franco MMS; Hashimoto M. Liderança empreendedora e práticas de gestão de pessoas: um estudo sobre a eficácia na promoção do empreendedorismo corporativo. Rev Empreendedorismo Gest Micro Pequenas Empresas. 2014;3(3):104-128. https://doi.org/10.14211/regepe.v3i3.121

(19) Cha S. The impact of the worldwide Millennium Development Goals campaign on maternal and underfive child mortality reduction: 'Where did the worldwide campaign work most effectively?' Glob Health Action. 2017;10(1):1267961.

https://doi.org/10.1080/16549716.2017.1267961

(20) Souza JP. A mortalidade materna e os novos objetivos de desenvolvimento sustentável (2016-2030). Rev Bras Ginecol Obstet. 2015;37(12):549-551. https://doi.org/10.1590/SO100-720320150005526

(21) Buerhaus PI; Des-Roches CM; Dittus R; Donelan K. Practice characteristics of primary care nurse practitioners and physicians. Nurs Outlook. 2015;63(2):144-153. http://doi.org/10.1016/j.outlook.2014.08.008

(22) Chin WY; Lam CLK; Lo SV. Quality of care of nurseled and allied health personnel-led primary care clinics. Hong Kong Med J. 2011;17(3):217-230. https://pubmed.ncbi.nlm.nih.gov/21636870/

(23) Newhouse RP; Stanik-Hutt J; White KM; Johantgen M; Bass EB; Zangaro G et al. Advanced practice nurse outcomes 1990-2008: A systematic review. Nurs Econ. 2011;29(5):230-250. https://pubmed.ncbi.nlm.nih.gov/22372080/

(24) Kurtzman ET; Barnow BS. A comparison of nurse practitioners, physician assistants, and primary care physicians' patterns of practice and quality of care in health centers. Med Care. 2017;55(6):615-622. http://doi.org/10.1097/MLR.00000000000689

(25) Andriola IC; Sonenberg A; Lira ALBC. Enfermagem de Prática Avançada: estratégia para melhorar o cuidado materno-infantil no Brasil. Acta Paul Enferm. 2020:33:eAPE20190235.

https://doi.org/10.37689/acta-ape/2020ar02356