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Health Surveillance and safety in maternal and neonatal care: proposal of logic model

Vigilância Sanitária e segurança da atenção materna e neonatal: proposta de modelo lógico

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ABSTRACT

Introduction: The promotion of patient safety in maternal and neonatal care services is a priority area for health policy in Brazil, because it contributes to reducing the morbidity and mortality of women and newborns. **Objective:** To elaborate a logical model based on the handbook Maternal and Neonatal Care Services: Safety and Quality, in which the National Health Surveillance Agency compiles specific recommendations for services whose target audience is pregnant and puerperal women, as well as their sons and daughters. **Method:** This is a qualitative, descriptive study, which used documentary analysis as a methodological procedure. The normative assessment sought to answer a script with twelve questions prepared by Bezerra et al. for program modeling. **Results:** It was evidenced that the integration between Health Surveillance and obstetric and neonatal care services is necessary, so that the desired effects can be achieved. **Conclusions:** The proposed logical model can be a useful tool, both for the organization and permanent monitoring of services, and for professionals working in Health Surveillance. Additionally, it may enhance the recognition of the health surveillance contribution to the promotion of maternal and infant health.

KEYWORDS: Health Evaluation; Health Surveillance of Health Services; Patient Safety; Maternal and Child Health; Brazil

RESUMO

Introdução: A promoção da segurança do paciente em serviços de atenção materna e neonatal constitui área prioritária para a política de saúde no Brasil, porque contribui para a redução da morbimortalidade de mulheres e recém-nascidos. **Objetivo:** Elaborar um modelo lógico com base no manual Serviços de Atenção Materna e Neonatal: Segurança e Qualidade, no qual a Agência Nacional de Vigilância Sanitária compila recomendações específicas para os serviços cujo público-alvo são mulheres em estado gravídico e puerperal, bem como seus filhos e filhas. **Método:** Trata-se de um estudo qualitativo, descritivo, que utilizou como procedimento metodológico a análise documental. A avaliação normativa procurou responder a um roteiro com doze questões elaboradas por Bezerra et al. para modelização de programas. **Resultados:** Foi evidenciada a necessidade de integração entre Vigilância Sanitária e os serviços de assistência obstétrica e neonatal, para que os efeitos almejados sejam alcançados. **Conclusões:** O modelo lógico proposto pode ser uma ferramenta útil, tanto para a organização e permanente monitoramento dos serviços, como para os profissionais que atuam na Vigilância Sanitária. Além de potencializar o reconhecimento da contribuição da vigilância sanitária para a promoção da saúde materno-infantil.

PALAVRAS-CHAVE: Avaliação em Saúde; Vigilância Sanitária de Serviços de Saúde; Segurança do Paciente; Saúde Materno-Infantil; Brasil

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INTRODUCTION

The promotion of the health of women and newborns during the pregnancy-puerperal cycle requires the performance of different levels of assistance and different bodies from governmental structures. Primary care maintains direct contact with users and their families, is responsible for surveillance of pregnancy and the puerperium, and promotes family planning, childcare, and health education. Tertiary care provides the obstetric and neonatal care necessary in case of complications, as well as childbirth assistance and care in the first hours after birth. Cross-cutting at both levels of care, the health surveillance system aims to promote the protection of the population's health, through sanitary control of the production and circulation of goods and the provision of services, including aspects related to environments, processes, inputs, and technologies[1]. In this broad area of action, specific competencies distinguish the role of health surveillance in order to promote maternal and neonatal health.

The relationship between health surveillance and maternal health, however, is not always evident. The study conducted by Maia et al.[2] interviewed professionals linked to the health departments of state capital cities, one from each region of Brazil. In total, 15 professionals participated, including five women health coordinators, five heads, and five technicians for Health Surveillance (Visa) of health services. The first group of professionals considered the integration between the areas important but difficult to be carried out. From the perspective of Visa workers, working together with the women's health area was only based on specific demands.

The researchers found the fragmentation between Visa's secretarial and isolation areas, with the consequent dissociation between assistance and prevention actions "[...] due to the understanding that one does not depend on the other, or because it was never thought in this possibility of joint work or because there was no presentation from one area to another"[2]. The result is corroborated by the qualitative research by Fernandes and Vilela[3]. The analysis of the interviews with 11 Visa and women's health managers, linked to four municipalities located in the state of São Paulo, concluded that "[...] Visa practices are still isolated from other health practices and that, many times, are identified only as supervisory practices"[3].

With regard to neonatal care, the research by Tomazoni et al.[4] evaluated 12 dimensions of patient safety from the perspective of 181 professionals from nursing and medical teams in neonatal intensive care units. The dimensions with predominantly positive responses were: "expectations and actions of the supervisor/manager to promote patient safety" (61%); "Organizational learning - continuous improvement" (59%); "Teamwork in the unit" (57%); "Openness to communication" (55%). Other dimensions with greater proportions of negative responses: "non-punitive response to the error" (58%), most respondents stated that, in the event of a notified error, the employee is exposed and not the problem; "Support from hospital management for patient safety" (51%), most disagreed that their managers encourage actions to promote safety; "Staff", considered by a significant part of the professionals to be insufficient for the demand (43%); "Teamwork" between hospital units (42%), many respondents assessed that there was no interaction between the different units in the hospital. The results of the research indicate that the organizational culture interferes in the promotion of patient safety in neonatal care services and reinforces the need to expand studies on the subject.

Although health surveillance has a strategic character to protect the health of the population - acting in the elimination, reduction, and prevention of health risks -, there is no specific public policy for the area in Brazil[5,6]. It appears that the breadth of Visa's spectrum of activity and the absence of a specific policy for the sector contribute to the difficulties of integrating the area with other segments of health management, especially with maternal and perinatal health. In addition, the lack of clarity as to the goals to be achieved and health indicators related to Visa's activities made it impossible to carry out the assessment step relevant to the public policy cycle.

Based on this observation and in order to elucidate the theory and logic underlying the National Health Surveillance System (SNVS), Felisberto et al.[6] carried out an evaluative modeling project with a focus on building indicators of health surveillance actions. First, the theoretical model of intervention was constructed, understood as "an organized system of action, constituted from the prioritization of those more representative activities being executed by the System [...]"[6]. The theoretical model seeks to identify how an intervention works and the contextual factors that can influence its functioning. Thus, it was defined that SNVS is the intervention responsible for the set of "Health Surveillance Actions", integrated by five components: management; regulation; health control; monitoring of health risk; information, communication, and health education. The theoretical model also points out the impacts, that is, the results at a long-term population level, expected with activities developed by Visa: reduction of morbidity and mortality; health protection and promotion; Visa social recognition.

The logical model described by Felisberto et al.[6] complements the theoretical modeling synthesized above, in that it establishes the connections between the components, subcomponents, activities, intermediate effects, impacts, and health indicators linked to Visa's operations. It is recommended to view the schematic drawing of the SNVS, resulting from the evaluative modeling undertaken, in the final document entitled "Evaluation of Health Surveillance Actions: a theoretical-methodological proposal"[5]. The referred theoretical-logical model[5] allows a new level for the discussion and evaluation of the pertinent attributions to Visa.

Based on this assumption and on the premise that Visa's performance contributes to the improvement of health indicators related to the quality and safety of obstetric and neonatal care services, this study aimed to present a logical model of the

manual entitled "Maternal and Neonatal Care Services: Safety and Quality"[7]. The purpose of the manual is to guide measures to increase patient safety and the quality of health services, specifically in the context of maternal and neonatal care.

METHOD

This study was dedicated to analyzing the recommendations for the implementation of a Program for the Promotion of Quality and Safety in Maternal and Neonatal Care (PPQSAMN). The recommendations are available in the manual of the National Health Surveillance Agency (Anvisa), entitled Maternal and Neonatal Care Services: Safety and Quality, which was published in 2014. It is, therefore, a qualitative study that used documentary research as a methodological procedure.

A program is constituted by an organized system of actions directed to intervene, in a specific period of time, in a problematic situation limited to a certain context[8]. Bearing in mind that not all programs bring the theoretical-logical model explicitly, as is the case with PPQSAMN[7], modeling is considered an essential step in the literature for conducting evaluative studies[8,9,10,11,12].

The questions formulated by Bezerra et al.[8] for the modeling of programs served as a basic guide for analyzing the parameters recommended for the institution of a PPQSAMN in maternity care services[7]. The script covered the following aspects: 1) the problem situation that the program demanded; 2) description of the program instituted to face the problem; 3) objectives, goals, and target audience of the program; 4) components; 5) necessary structure; 6) planned actions; 7) expected products/results; 8) internal and external factors that influence the achievement of results.

The application of the script was presented in the form of a diagram to optimize communication with possible actors involved in the planning, execution, monitoring, and evaluation of maternal care services in Brazil[11]. In addition, it dialogues with the theoretical-logical model of health surveillance actions present in Anvisa's recommendations[5].

The analysis of Anvisa's manual for the implementation of PPQSAMN was complemented by the consultation with other normative sources of support: a) Ordinance Cabinet of the Minister/Ministry of Health (MS) No. 529, of April 1, 2013[13], which instituted the National Patient Safety Program (PNSP); b) Anvisa's Resolution of the Collegiate Board (RDC) nº 36, of July 25, 2013[14], regarding actions for patient safety in health services; c) Anvisa's RDC nº 36, of June 3, 2008[15], which provided for the technical regulation for the operation of obstetric and neonatal care services.

These standards were consulted to the extent that they support the recommendations for maternal and neonatal safety. GM/MS Ordinance No. 529/2013[13] is cited in the introduction of the analyzed manual to indicate Anvisa's responsibility in coordinating the implementation of PNSP. Of the actions provided in Anvisa's RDC nº 36/2013[14], the recommendation for the institution and functioning of the Patient Safety Centers in health services stands out. In addition, the structural resources necessary for the operation of obstetric and neonatal care services are presented in the manual in accordance with the quality, safety and humanization standards set out in RDC Anvisa nº 36/2008[15]. Therefore, the standards consulted subsidize PPQSAMN, whose logical model is presented and discussed below.

RESULTS AND DISCUSSION

SNVS is coordinated by Anvisa, the regulatory agency created by Law No. 9,782, of January 26, 1999[1], under a special autonomy regime characterized by financial autonomy, administrative independence, and stability of its leaders, linked to the Ministry of Health. Among the attributions provided for by law, Anvisa is responsible for "establishing standards, proposing, monitoring, and executing health surveillance policies, guidelines, and actions", with coverage throughout the national territory. In this way, the agency is responsible for the national health surveillance policies that impact the health promotion of several population groups, specifically, for the purpose of this article, the health of women during the pregnancy-puerperal cycle and the neonate.

Anvisa establishes parameters, laid down in rules and guidelines, for the operation of establishments and services that provide obstetric and neonatal care. The publication entitled Maternal and Neonatal Care Services: Safety and Quality[7], carried out by the agency in partnership with the Pan American Health Organization (PAHO), presents a set of recommendations and lists the necessary steps for the implementation of a PPQSAMN. The program is applicable "to any place where maternal and neonatal care is offered", regardless of the legal regime, including primary care services - such as basic health units, outpatient clinics, normal birth centers, hospital services, and assistance spaces such as Homes for Pregnant Women, Babies, and Children. Considering the specificities and the context of each service, adaptations to the program proposed by Anvisa can be considered by the respective local teams[7].

The context in which the manual was elaborated refers to the concern with preventing errors in the care process that may cause harm to health service users. The World Alliance for Patient Safety was launched in 2004 by the World Health Organization (WHO) as a way to obtain the commitment of the signatory states, including Brazil, with the institution of measures to improve the quality of services and increase the safety of the patient in the respective health services. With an international incentive, the subject of patient safety guided health surveillance actions at the federal level, with the preparation of the PNSP[13]; the approval of Anvisa's RDC nº 36/2013[15] - which provides for patient safety actions in health services; and the elaboration of safety and quality recommendations for the Maternal and Neonatal Care Services[7].

In the theoretical-logical model of health surveillance actions, the "health risk monitoring" component covers the patient safety

subcomponent[5]. From this chain, it appears that maternal safety and neonatal safety branch from patient safety, as specialties inherent to services that target pregnant women and puerperal women, as well as their newborn children, but with actions coordinated by Visa.

Maternal and neonatal care is a priority area with regard to patient safety[7]. This is because there are about three million births per year in Brazil[16], with 98.5% being performed in hospitals or maternity hospitals[17]. Therefore, the population exposed to procedures related to maternal and neonatal care services corresponds to approximately six million women and children. Data reported in the document analyzed also refer that obstetric procedures corresponded to the third cause of hospital admissions in the Unified Health System (SUS) in 2012; the year when 218,418 hospitalizations were computed due to problems arising from the perinatal period[7].

In addition, it is argued that the prevailing obstetric care model in Brazil recommends the routine performance of interventions (such as episiotomy, cesarean section, and use of oxytocin) in the parturition process that expose women and children to unnecessary risks, which may culminate in maternal deaths and neonatal care that could be avoided by adequate care[7,18]. The quality of care becomes one of the main determinants of maternal and perinatal health outcomes, given that almost all women have access to pregnancy and childbirth care services in Brazil[19].

The studied Anvisa document offers guidelines for the construction and renovation of maternal and neonatal care units, organization and structuring of these services, and the development of patient safety systems. The purpose of the guidelines is "to promote quality obstetric and neonatal care that reduces the damage resulting from the reproductive process itself and minimizes the damage related to the care process"[7]. Achieving this objective presupposes overcoming the security versus humanization dichotomy. Because, the transversal concept to all the recommendations prescribed in the document is that maternal and neonatal safety should include aspects of an emotional, social, and cultural order. With this assumption, the definition of damage resulting from the assistance process is expanded, as shown below:

> In maternal and neonatal care, a multidimensional conception should prevail where both adverse events that compromise the structure or function of the body, such as injuries, disability or dysfunction, or even death, as well as social, psychological, moral, and cultural suffering must be framed in the category of damage to the patient[7].

With a focus on safety and humanization, Anvisa's goal is "[...] to contribute to government efforts to reduce maternal and neonatal mortality and morbidity in the country, in addition to reducing physical or psychological damage resulting from errors and inappropriate practices assistance services". PPQSAMN is divided into two components: maternal safety and neonatal safety[7].

The content of PPQSAMN is anchored in the triad: structure, processes, and results, proposed by Avedis Donabedian to assess the quality of health care. With these elements demarcated by the logical model proposed here (Figure), the structural elements necessary for the operation of the PPQSAMN were identified and grouped into four types of resources: 1) approved and current procedures and instructions; 2) an adequate environment for the services provided in accordance with legislation relevant to the level of service complexity; 3) qualified and trained personnel; 4) financial resources, equipment, supplies, materials, and logistical support according to the legislation applicable to the type of establishment/service. The elements that make up each type of resource are described in the Table.

When examining the availability and quality of the structural elements, it is possible to detect possible problems and analyze how these difficulties affect the provision of care and care processes[7]. The qualitative research by Maia et al.[20] conducted interviews with a person in charge and a Visa technician from health services and a coordinator of the women's health area from the health department of three municipalities, located in the North, Northeast, and South of Brazil. The content analysis, related to the answers to the question about characteristics of the quality of services that serve women's health, used the categories of structure, process, and result. The interviewees emphasized aspects related to the structure, both in terms of inputs and the human resources needed for assistance. The research findings are an indication that there is a need to train professionals to recognize other elements that make up the quality of health services, especially those related to practices and activities that can contribute to maternal and neonatal safety.

Specifically regarding the assistance provided in the context of neonatal intensive care units, a study by Tomazoni et al.[21] with 28 nursing and medical professionals found that there is a recognition of the importance of patient safety and understanding that work routines can expose newborns to risks. Among the factors that interfere with patient safety, from the perspective of professionals, are the inadequate infrastructure of the hospital environment, old and maintenance-free materials and equipment, and difficulty in replacing professionals who are absent from the service - which leads to an increase in work and fatigue. The interviewees also pointed out that there is no incentive for the communication of failures occurred by the management and that, in the event of an error, spaces for discussion and collective learning are not provided.

The processes, in turn, bring together the set of activities performed by the various professionals involved directly or indirectly with obstetric and neonatal care. The recommendations for the implementation of PPQSAMN include retrospective actions, in the sense of examining practices already carried out to diagnose failures, and prospective actions, to improve the performance of assistance according to standards based on scientific evidence and on the human rights of the users. In addition, strategies can be devised to incorporate technological innovations and research.

PROGRAM FOR THE PROMOTION OF QUALITY AND SAFETY IN MATERNAL AND NEONATAL CARE (PPQSAMN)

MATERNAL AND NEONATAL CARE SERVICES

COMPONENTS
MATERNAL SAFETY
NEONATAL SAFETY

OBJECTIVES
REDUCE THE HARMS RESULTING FROM THE OWN REPRODUCTIVE PROCESS
MINIMIZE DAMAGES RELATED TO THE ASSISTANCE PROCESS

RESOURCES
APPROVED AND CURRENT PROCEDURES AND INSTRUCTIONS
ENVIRONMENT SUITABLE FOR SERVICES PROVIDED
QUALIFIED AND TRAINED STAFF
FINANCIAL SERVICES, EQUIPMENT, SUPPLIES AND LOGISTIC SUPPORT

PROCESSES
INSTITUTE THE PATIENT SAFETY CENTER
IMPLEMENT SURVEILLANCE OF INFECTION CONTROL AND ADVERSE EVENTS
IDENTIFYING HIGHER VOLUME PROCEDURES AND DEFINING SENTINEL EVENTS OR INCIDENTS
CHOOSE SOURCES FOR DATA COLLECTION, SET REFERENCE STANDARDS TO EVALUATE PERFORMANCE, AND FORMULATE INDICATORS
ESTABLISH ACTIONS AND CHANGES FOR IMPROVEMENT
EFFECTIVE TEAMWORK
TRAIN TEAMS IN SIMULATED SITUATIONS
IMPLEMENT OPTIMIZED PROTOCOLS AND SECURITY LISTS FOR COMBINED INTERVENTIONS
PERFORM CONTINUING EDUCATION AND SECURITY ROUTES
INTEGRATING PATIENTS AND COMMUNITY IN SAFETY ACTIONS

RESULTS
PROMOTION OF PATIENT SAFETY CULTURE
ASSISTANCE BASED ON EVIDENCE AND USER RIGHTS
IMPROVING COMMUNICATION BETWEEN PROFESSIONALS AND JOINING THE NETWORK
REDUCING THE SUBNOTIFICATION OF ADVERSE EVENTS
REDUCING THE SUBNOTIFICATION OF HEALTHCARE-RELATED INFECTIONS
EDUCATIONAL AND NFORMATIONAL ACTIVITIES FOR USER AND FAMILY ENGAGEMENT

IMPACTS
IMPROVING THE QUALITY AND SAFETY OF MATERNAL AND NEONATAL CARE SERVICES
REDUCING MATERNAL MORBIDITY AND MORTALITY
REDUCING NEONATAL MORBIDITY AND MORTALITY
REDUCING PHYSICAL, SOCIAL, OR PSYCHOLOGICAL DAMAGE RESULTING FROM MISTAKES AND INAPPROPRIATE PRACTICES OF ASSISTANCE SERVICES
SOCIAL RECOGNITION OF HEALTH SURVEILLANCE FOR THE PROMOTION OF MATERNAL AND NEONATAL HEALTH

CONTEXT OF THE SERVICE

Source: Anvisa, 2014[7].

Figure. Logical model of the Program for the Promotion of Quality and Safety in Maternal and Neonatal Care.

It should also be noted that the "focus of activities is on the system and teamwork and not on individuals. Sanctions and punishments are not adequate, and they are not effective"[7]. In other words, it is encouraged that the care processes are verified in order to generate learning that is valid for the service as a whole. Safety, as an attribute of quality, is provided both by actions to prevent adverse events and damages caused by the care process, as well as by positive actions that seek to implement improvements and changes that reinforce the reliability of workers and users in maternal and neonatal care services.

It is with this in mind that the Patient Safety Center (NSP) should be created, focused on maternal and neonatal care[13,15]. Its composition must be multidisciplinary and meet the necessary conditions to coordinate retrospective and prospective actions that culminate in the promotion of a safety culture in services. NSP is responsible for notifying adverse events (for example adverse reaction to medication, incident related to the assistance process) and technical complaints about products subject to health surveillance (for example vaccines, medical articles, and equipment). The notification to Visa does not release the responsibility for the epidemiological investigation and taking measures to control the situation.

Among the listed strategies, it is first suggested the identification of improvement priorities, based on the verification of

Table. Resources necessary for the operation of the Program for the Promotion of Quality and Safety in Maternal and Neonatal Care.

Approved and effective procedures and instructions	• updated health license, issued by local Visa and updated data in the National Register of Health Facilities • updated bylaws or equivalent • outsourced activities/services formalized by contract with providers holding a sanitary license • written and updated technical standards, protocols, and routines based on scientific evidence, easily accessible to the entire health team • commissions and committees functioning according to legislation (for example: maternal, fetal, and neonatal mortality committee) • formal document on referral and counter-referral services • mechanisms for identifying and controlling access to workers, patients, companions, and visitors • organization, maintenance, and availability of the establishment's documentation • organization of information for users' care (medical records, etc.)
Adequate environment for services provided according to legislation	• basic architecture project approved by Visa • building installations according to technical notes • accessibility • quality/continuity of water supply • guarantee of continuity of electricity • pest and vector control • waste management according to the health service waste management plan • cleaning indoor/outdoor spaces
Qualified and trained personnel	• technical responsible and substitute qualified by the respective class councils • team sized according to current rules/laws • legally qualified professionals • permanent education • assessment and periodic recording of workers' occupational health • guidance for preventing the risks of accidents at work • training of the team for humanized and safe assistance, performance based on institutional protocols, identification, and management of obstetric complications, care for urgencies and emergencies
Financial, equipment, supplies, materials, and logistical support according to legislation	• personal protective equipment • information systems • inputs according to the level of complexity and demands of the service • guaranteeing full-time access to care, diagnostic and therapeutic support resources

Source: Anvisa, 2014[7].

higher volume procedures, such as the average number of normal and cesarean deliveries performed by the establishment. According to Anvisa[7], it is important to define sentinel events or incidents, the causes of which need to be investigated and analyzed and require notification. Among the suggested maternal sentinel events are scheduled elective delivery; unplanned maternal readmission within 14 days postpartum; organ removal, injury, or unplanned repair; anesthetic complications; maternal death, etc. Fetal/neonatal sentinel events may include fetal injury in cesarean section, undiagnosed fetal anomaly, fetal and neonatal deaths weighing less than or equal to 500 grams, among others. It is also recommended to define sentinel events related to the organization of the service that can compromise the quality of care, for example, medical records not available, user complaints, infections related to care. Sentinel events must be congruent with the level of complexity and demand for services.

Other activities recommended by Anvisa[7] involve the verification of the sources available for data collection (information systems, medical records, manifestations in the ombudsman, etc.), the establishment of reference standards for assistance, and decision regarding the indicators that make it possible to evaluate the service performance. The indicators can contemplate the resources, processes, and desired results, as long as there is consistency with the established reference standards. Examples of relevant indicators: "death rate due to failure during care", "percentage of incidents by degree of damage", "incidence of surgical site infection by cesarean section"[5].

The study by Moraes et al.[22], carried out in a teaching hospital in the interior of the state of São Paulo, found together with the NSP data that, among the 89 reports of adverse events, 30.3 % were related to nipple trauma, 25.8% to communication failures, 20.2% to medication administration and 14.6% to identification. The study also concluded that the lack of indicators to assess the performance of maternal and neonatal care makes it difficult to implement a safety culture in the institution.

In the event of failures or assistance provided below the predefined parameters, it is recommended to investigate and monitor the causes that contributed to the negative outcome. Most adverse events or incidents have multifactorial causes, recognizing them from an institutional point of view is more effective than seeking culprits individually. Following Anvisa's theoretical-logical model[5], this process involves "monitoring the levels of infection related to health care" and "monitoring adverse health care events". There are several methodologies that can be useful to the investigation and monitoring processes, and the Anvisa document[7] offers the seven steps for Root Cause Analysis as a suggestion.

Continuous monitoring, actions, and changes for improvement must be established. These actions result from a series of concomitant activities dependent on effective teamwork; training

in simulated situations; development of evidence-based clinical guidelines; implementation of optimized protocols, security lists, and combined interventions; and processes of continuing education and security rounds[7].

Multiprofessional work is essential but still incomplete without the integration and engagement of patients, families, and the community for the realization of a culture of safety. Although this action is not actually listed as part of the strategies for guaranteeing PPQSAMN, it is clear from reading the entire document[7], the need to integrate patients, families, and the community in safety actions. This can occur through educational activities on the safe use of medications, hand hygiene, cough with etiquette, and prevention and infection control. Furthermore, in addition to what is in the document, it is useful to establish a culture of identification and notification by patients, with active ombudsman services and effective possibilities for the inclusion of the community in security management processes[23,24].

Other actions can be performed, depending on the type and demand of the service, also considering the Safe Assistance manual: a theoretical reflection applied to the practice[25].

From these processes, the results include the short and medium-term effects. Results include the reduction of underreporting of infections related to health care and the reduction of underreporting of adverse events, which will contribute to the "reduction in the number of health services classified as medium-high and high risk" at the national level[5]. Other results related to the set of processes that make up the program are improved communication between service professionals, the articulation of the care network, and the engagement of patients, family members, and the community[5,7,13].

The implementation of PPQSAMN in maternal and neonatal care services aims to promote a culture of patient safety and the humanization of obstetric and neonatal care - which presupposes evidence-based care with respect for the human rights of women, newborns, and their families. According to the concept formulated by Pittrof et al.[26], the quality of maternal care services involves the combination of "minimal care" for most women and newborns and highly complex for those who need it. Bearing in mind that most pregnancies, deliveries, and births take place without the need for interventions, the "minimum care" corresponds to the good practices of obstetric and neonatal care, which recommend non-invasive posture and the performance of interventions when there is an evidence-based indication. This is because the routine practice of invasive procedures exposes the woman and the baby to greater risks of adverse events related to care. Whatever the level of complexity of care, social, cultural, and emotional aspects related to birth must be considered.

The improvement in communication between professionals is also scored as an expected result. This is because the effectiveness of the actions listed recommends teamwork. Cooperation between professionals in different hierarchical positions and functions is a permanent challenge for health services. Strengthening teamwork is an essential strategy for fostering a culture of safety, given that uncoordinated actions and communication difficulties among professionals are at the heart of many adverse events or incidents in the context of maternal and neonatal care[7].

From the articulation between adequate resources, processes consistent with patient safety, and the humanization and expected results at the institutional level, it is possible to foresee impacts for the population in general. These are effects that demonstrate how each institution can contribute, in a broad sense, to: a) improving the quality and safety of maternal and neonatal care services; b) reduction of maternal and neonatal morbidity and mortality; c) reduction of physical, social, or psychological damage resulting from errors and inadequate practices of assistance services; and d) social recognition of health surveillance to promote maternal and neonatal health. The entire constitution of the logical model reinforces the need for integration between Visa agencies and maternal and neonatal care services.

CONCLUSIONS

The constitution of the presented logical model sought to integrate one of the attributions of health surveillance to promote maternal and neonatal health, specifically, patient safety provided for in Anvisa's theoretical-logical model[5]. The analysis focused on the document Maternal and Neonatal Care Services: safety and quality, which proposes a PPQSAMN[7].

In the same way that PPQSAMN can be performed by the obstetric and neonatal care services, through adaptations according to the level of complexity and demands of the service, it is expected that the logical model now proposed can contribute to the assessment activities of the management teams of the relevant services.

The model was built based on the triad structure, processes, and results, according to Donabedian, and sought ways to synthesize and organize the set of recommendations for maternal and neonatal safety. It was concerned with realizing the importance of multi-professional work and the integration of patients, family members, and the community for the promotion of a patient safety culture.

Although not explored in depth in the base document[7], it is believed that the strengthening of social control can enhance the processes of service evaluation, as well as the recognition and social appreciation of Visa for maternal and neonatal health promotion. The experience of the "active ombudsman's offices" can contribute to the monitoring mechanisms, for example, of incidents or adverse events related to health care.

Finally, the need to articulate and complement Visa services and obstetric and neonatal care is highlighted. It should be noted that the Visa recommendations analyzed are in line with the National Policy for Comprehensive Care for Women's

Health and the National Policy for Comprehensive Care for Child Health. Mainly with the Humanization Program in Prenatal and Birth, which proposes obstetric and neonatal practices based on the best scientific evidence and with the centrality of women and their families, with effective respect for the human rights of users.

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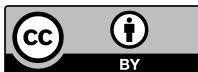
Author's Contributions

Bourguignon AM - Conception, planning (study design), acquisition, analysis, data interpretation, and writing of the work. Hartz Z, Moreira D - Conception, planning (study design), acquisition, analysis, and data interpretation. All authors approved the final version of the work.

Conflict of Interests

The authors inform that there is no potential conflict of interest with peers and institutions, politicians, or financial in this study.



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