

Implementation of postpartum care for women in primary care in the South of Brazil

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Abstract

Objectives: to determine the implementation level and analyze favorable and unfavorable aspects of operationalization women's care in postpartum period in primary care.

Methods: evaluation study of the normative type, performed through a multiple case study in three cities in the South States in Brazil, with a collection of primary and secondary data. The implementation level (classification: satisfactory, partial, incipient, and critical) was determined by the Matriz de Análise e Julgamento (Analysis and Judgment Matrix), consisted of the dimensions of management and execution, and the respective sub-dimensions. Thematic and imbricated analysis of the cases were performed.

Results: postpartum care was incipient in the management dimension for all the cases, with a higher implementation level for the "care coordination and intersectorality mechanisms" (partial) sub-dimension. In the execution dimension in case 3 was partially implemented, and the others were incipient. The breastfeeding sub-dimension had a higher implementation level for all the cases, and the longitudinality, mental health and reproductive planning sub-dimensions had a lower implementation level. Care in relation to domestic violence and mental health occurred unsystematically, and reproductive planning focused on hormonal contraceptive methods.

Conclusion: management does not provide ideal conditions for healthcare professionals' performance; and, in the execution dimension are not incorporated as the main necessity in the health care practice in women's health.

Key words Primary health care, Postpartum period, Women's health, Health evaluation



Introduction

There were 295,000 maternal deaths in 2017, worldwide, corresponding to 211 deaths per 100,000 live births, 57 was the rate in the Americas, and 60 deaths per 100,000 live births in Brazil, of these, the majority occurred in the first 42 days after childbirth.¹

Besides mortality, postpartum is a critical period in women's lives, as they variously experience physical, emotional and social alterations, and the most undergo some kind of situation, such as bleeding, infection, pain (abdominal, perineal and back), headache, thromboembolism, urinary tract complications, breastfeeding difficulties, family conflicts, domestic violence, sexual and mental health problems.²⁻⁴ These problems can be a short transition or persist for years after childbirth, the sooner the women's necessities are met, the better the prevention and resolution of these problems will be.^{5,6}

Reducing maternal morbidity and mortality depends on ensuring access to quality care during prenatal, childbirth and postpartum;¹ however, in general, postpartum care is neglected by health professionals and institutions.⁷ Accordingly, Primary HealthCare (PHC), is due to the fact of being responsible for postpartum follow-up, being closer to women, being the priority gateway to the health system and organizing the healthcare network, must have ideal conditions to provide this care with quality.^{2,7,8}

Therefore, it is necessary to integrate PHC to other points in the healthcare network,⁹ with the city health management being the main responsible for this organization, enabling PHC professionals to provide comprehensive care.^{2,10}

To understand the operation in the municipal health management and the actions developed for women in PHC, it is essential to identify how much postpartum care is operational, and this is possible through an implementation analysis.¹¹ Focused on this study, which was justified by: shortage of evaluative studies besides normative and healthcare aspects, or "cut out" program;¹² being a care that is still neglected by public policies, services and health professionals;⁷ high morbidity and mortality of postpartum women;²⁻⁴ and the necessity of identifying the operationalization in postpartum care, thus, indicating its favorable and unfavorable aspects, which allows to improve the program. The objective was to determine the implementation level and analyze favorable and unfavorable aspects of the operationalization in postpartum women's care in the PHC context in three cities in the South region in Brazil.

Methods

This is a normative study, which addressed the implementation level of postpartum care in PHC and analyzed favorable and unfavorable aspects in the operationalization of this intervention,¹¹ which was carried out from February to June 2019, in a quantitative and qualitative approach.¹³ It was developed through a study of multiple cases^{14,15} by answering the following research question: How is postpartum women's care implemented in PHC?

The selected cases were a city in each state in the South region in Brazil, and were called Case 1, Case 2 and Case 3, according to the following inclusion criteria: more than 100,000 inhabitants, most of them in favorable characteristics for health management;¹⁶ PHC coverage was greater than 80%; more than 80% of the health teams were enrolled in the *Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica* (PMAQ) (National Program for Access and Quality Improvement in Primary Care); more than 80% of the teams were evaluated as "excellent", "very good" and "good" in the PMAQ program. When more than one city met the inclusion criteria, professionals in the PHC technical area and women's health, from the respective *Secretarias Estaduais de Saúde* (State Health Departments), were asked to choose the best case.

The units of analysis were the city health management and a family health team from each city. The city health management was asked to indicate a family health team with PHC considered as exemplary, among those with "excellent" and "very good" evaluations in the PMAQ program.

The informants were professionals from the city administration, professionals from the PHC teams and puerperal women cared for by these teams. Professionals from the city management of the women's health and PHC areas and professionals from the minimum family health team (physician, nurse, nursing technician/assistant and community health worker), were selected, those who had more than one year of experience in the same workplace.

Professionals on vacation or leave were excluded. Regarding to the puerperal women, women who had at least one puerperal consultation up to 42 days, and who were at six months postpartum were selected, in order to reduce memory bias about the received care. A survey of eligible women was carried out, followed by a random drawing, were interviewed until the occurrence of data saturation.

Six managers participated in the study (1 Case 1; 3 Case 2; 2 Case 3), 4 physicians (1 Case 1; 1 Case 2; 2 Case 3), 4 nurses (1 Case 1; 1 Case 2; 2 Case 3), 2 nursing technicians (1 Case 1, 1 Case 2), 18 community health

workers (6 Case 1; 9 Case 2; 3 Case 3) and 31 puerperal women (10 Case 1, 11 Case 2 and 10 Case 3). A nursing technician in Case 3 who was on vacation was excluded, six puerperal women refused to participate and three could not be contacted.

Primary and secondary data were collected. The primary data collection took place through interviews with selected informants, in each unit of analysis, with a semi-structured script. The interviews were scheduled with the professionals in their respective work environments and the women chose the health unit or their homes. Secondary data were collected through the analysis of medical records of selected puerperal women, documentary analysis (city documents: Annual Health Program, protocols, technical standards, etc.), microdata from the external evaluation of the third cycle of the PMAQ program, besides the information systems of the Departamento de Informática do SUS (Public Health Informatics Department). The instruments for collection were developed based on the theory of the postpartum care program for women in PHC.17A pilot case study was conducted in a city that was not part of this study.¹⁴

The *Matriz de Análise e Julgamento* (MAJ) (Analysis and Judgment Matrix) was designed, consisting of dimensions and sub-dimensions,¹³ defined through the *Teoria do Programa*¹⁷ (Theory Program) and validated by the consensus conference technique¹⁸ with experts in the field and stakeholders (interested in the evaluation), being: four women representatives for women's movement, five professionals in PHC area and management in women's health in Paraná, Santa Catarina and Rio Grande do Sul States, in addition to three professionals with experience in PHC.

The MAJ design was used to determine the implementation level of postpartum care and to identify the factors that explain the different implementation levels. It was composed by two dimensions of analysis, management and execution, broken down into three sub-dimensions (material and physical financial resources; human resources; and mechanisms for coordination in care and intersectorality) and seven sub-dimensions (longitudinality; access; physical health; mental health; domestic violence; breastfeeding and reproductive planning), respectively. Each sub-dimension has a maximum score, distributed among the criteria/indicators that constitute it.

The proportion of the sum of the observed scores (OS) in the dimensions/sub-dimensions in relation to the expected score (ES) determined the judgment value for the implementation level: $IL(\text{implementation level}) = (\sum OS / \sum ES) \times 100$. The proportions were stratified into quartiles for classification of the Implementation Level, namely: satisfactory implementation (76% to 100%); partial

implementation (51% to 75%); incipient implementation (26% to 50%); and critical implementation (below 26%).¹⁹

The individual analysis of cases was carried out through thematic analysis²⁰ with triangulation of data from different sources of evidence, using a pre-defined list of codes²⁰ according to the MAJ design, with the aid of NVivo software, version 11. From the thematic analysis, a judgment value was held based on the rationale¹³ of each criterion/indicator and discussed among the authors to attribute the score in each case. In order to perform the imbricated analysis, a thorough examination of the dimensions and sub-dimensions was carried out, verifying the convergences, divergences, favorable and unfavorable aspects among them.

This study was approved by the Ethics Committee for Research with Human Beings at the *Universidade Federal de Santa Catarina* (Opinion document number 3.036.173/2018).

Results

The results show that postpartum care was incipient in the management dimension for all the cases. In the execution dimension, Case 3 had partial implementation (57%), while the others had incipient implementation (Table 1).

Table 2 shows MAJ design of the management dimension and its respective sub-dimensions.

In the "Financial, material and physical resources" sub-dimensions there was a critical implementation for Case 2 and incipient implementation for the others. The main weaknesses are reflected in the lack of proper scheduling of actions for postpartum women; unavailability of contraceptives in the health units, mainly because they do not perform insertion of intrauterine devices in the PHC area; inadequate physical space, referring to the lack of space for educational activities and adequate spaces and equipment for people with disabilities.

Case 2 was partially implemented in the "Human Resources" dimension (60%). Cases 1 and 3 had critical (10%) and incipient (30%) implementations, respectively. None of the studied cases did the professionals receive updates about postpartum care.

Postpartum care was partially implemented in the "Mechanisms for coordination in care and intersectorality" sub-dimension for all the cases which revealed referral and counter-referral mechanisms, puerperal women's access to other health care points, specialists' support for PHC professionals and participation of managers in meetings of the *Comissão Intergestora Regional* (Regional Inter-Management Committee). The main weaknesses were the timely access for sterilization and vasectomy, and to psychiatrists and intersectoral articulation.

Table 1

Implementation level on postpartum care for women in primary care in three cities in the South Region, Brazil, 2019. in bays along the Cuiabá River, Pantanal of Barão de Melgaço, Mato Grosso.

Dimension	Case 1			Case 2		Case 3	
	ES (%)	OS	IL (%)	OS	IL (%)	OS	IL (%)
Management	30 (100.0)	11.5	38.3	15.0	50.0	11.0	36.7
Execution	35 (100.0)	13.8	39.6	9.9	28.4	19.9	57.0

ES = Expected score; OS = Observed score; IL = Implementation level (Satisfactory implementation: 76% to 100%; partial implementation: 51% to 75%; incipient implementation: 26% to 50%; and critical implementation: below 26%).¹⁹

Table 2

Analysis and judgment matrix of postpartum care for women in primary care: management dimension and its sub-dimensions in three cities in the South Region, Brazil, 2019.

Sub dimension	Criterion or indicator	ES	OS Case 1	OS Case 2	OS Case 3
Financial, material and physical resources (10 points)	Actions for postpartum women's health contemplated in the Programação Anual de Saúde (Annual Health Program) and executed in the last year	2	0	0	0
	Execution of the state and federal transfer resources for PHC in the last year	2	2	0	2
	Availability of essential equipment in PHUs	1	0	1	0
	Availability of contraceptives in PHUs	1	0	0	0
	Availability of essential medications for puerperal women in PHUs	1	1	0	0
	Availability of materials for cytopathological collection and gynecological examination in puerperal women in PHUs	1	1	1	1
	Adequacy of physical space: adequate spaces for waiting, as well as for clinical and educational care	1	0	0	0
	Adequacy of physical space: adequate spaces for people with disabilities	1	0	0	0
	IL = (ΣOS/ΣES*100)	100%	40%	20%	30%
Human Resources (10 points)	Primary care coverage	2	1	2	1
	Family Health Strategy Teams	2	0	2	0
	Professional qualification: Professionals (physicians and nurses) who participated in courses/meetings/educational actions to update on women's health in the last year	2	0	1	2
	Professional qualification: Professionals (physicians and nurses) who participated in courses/meetings/educational actions to update on postpartum care in the last year	2	0	0	0
	Protocol and/or clinical guidelines for women's healthcare that include postpartum care formally implemented and available to be used by health professionals	2	0	1	0
		IL = (ΣOS/ΣES*100)	100%	10%	60%
Mechanisms for coordination in care and intersectorality (10 points)	Existence of referral and counter-referral mechanisms among different points of healthcare	1	1	1	1
	Follow-up of indicators on postpartum care	1	1	0	0
	Scheduling the first postpartum consultation	2	1	2	1
	Access for puerperal women to other points of available and facilitated healthcare (when necessary) (Psychosocial Care Center/Hospital/Emergency Care Units) through a network and formalized flows	1	1	1	1
	Access to a referral service for sterilization and vasectomy in a timely manner (60 days)	1	0	0	0
	Specialized care: PHC teams receive support from other professionals to help or provide support in the resolution of cases considered complex	1	1	1	1
	Specialized care: Timely access to specialized psychiatrists- less than 30 days	1	0	0.5	0
	Attendance of the manager or his/her representative at meetings of the Regional Inter-Management Committee in the last year	1	1	1	1
	PHC actions coordinated with other sectors of society through a network and formalized/implemented flows	1	0.5	0.5	0
	IL = (ΣOS/ΣES*100)	100%	65%	70%	50%

PHC = Primary HealthCare; PHU= Primary Health Unit; ES = Expected score; OS = Observed score; IL = Implementation level (Satisfactory implementation: 76% to 100%; partial implementation: 51% to 75%; incipient implementation: 26% to 50%; and critical implementation: below 26%).¹⁹

Table 3

Similarities and differences between favorable and unfavorable aspects for the postpartum care implementation: management dimension in three cities in the South Region, Brazil, 2019.

Case (s)	Favorable Aspects	Unfavorable Aspects
1, 2 and 3	Availability of materials Institutionalized referral and counter-referral mechanisms Access to other healthcare points Matrix support Manager's participation in Regional Inter-Management Committee meetings	Lack of programming actions for postpartum women Inadequacy of physical space Lack of essential equipment for obese women Lack of timely access to long-term contraceptive methods Lack of professional qualification for the postpartum issue
1 and 2	Articulation with social work for specific cases	Lack of continuing education
1 and 3	Full execution of state and federal transfer resources	Low FHS coverage Lack of clinical protocol for postpartum care Lack of timely access to psychiatrists
2 and 3		Lack of follow-ups on postpartum indicators
1	Management has good registrations, knows and works based on the follow-up of postpartum indicators; electronic medical charts integrated with the whole city network	
2	Availability of essential equipment Good FHS coverage Clinical protocol for nursing postpartum care Women leave the maternity hospital with a scheduled postpartum consultation Access to psychiatrists in less than 60 days	Partial execution of state and federal transfer resources; Lack of antibiotics
3	Encouragement of professional qualification (continuing education)	Lack of medications Lack of formal articulation with social work

FHS = Family Health Strategy.

Table 3 shows the specificities of each analyzed case in relation to the favorable and unfavorable aspects of the postpartum care implementation in the management dimension.

Regarding to the favorable aspects, it should be highlighted that Cases 1 and 2 are linked to social work; however, only for specific situations (homeless people – Case 2 and violence against women and children – Case 1), thus, indicating the necessity to improve the intersectoral action for all the cases.

Case 1 deserves to be highlighted for the quality of the registrations with electronic medical charts integrated throughout the city network, which enables the continuity in care. In addition, this case monitored the consultation indicator up to 42 days postpartum, although, this is not the indicator contained in the *Programação Anual de Saúde* (Annual Health Program).

Case 2 was the only one that had a clinical protocol for postpartum care; however, only for nurses' performance, showing that the three cases needed improvement in this aspect. In addition, Case 2 had good articulation with the referred maternity hospital, which made it possible for women to leave the hospital with a scheduled postpartum consultation.

In relation to Case 3, it is important to emphasize its concern with the continuing education for professionals, since this is part of the primary care teams' routine, with space to discuss in team meetings and with a continuing education center established in the city, which allows a constant professional improvement according to their needs.

In regard to unfavorable aspects, it should be highlighted the lack of Continuing Education (Cases 1 and 2), the low coverage of FHS, which would be essential for strengthening the PHC network, and the lack of access to psychiatrists in a timely manner, which hinders the resoluteness and continuity of care in the PHC for women with postpartum depression (Cases 1 and 3).

Table 4 shows the MAJ design of the execution dimension and its respective sub-dimensions.

The "longitudinality" sub-dimension had critical implementation for Cases 1 and 2, while it was incipient for Case 3. The main weaknesses of the three cases were related to the lack of use of clinical protocols, lack of care in the remote puerperal period and postpartum care plan. Cases 1 and 2 had difficulties in involving families and/or partners to care for these women.

Regarding to "access", Cases 1 and 2 had incipient implementation, while Case 3 had partial implementation. The main weaknesses are in terms of having six or more prenatal consultations and two postpartum consultations. Only Case 3 accomplishes the sufficient number of home visits in the first week of postpartum.

The "physical health" sub-dimension was partially implemented for Cases 1 and 3, but it was incipient for Case 2. All the cases showed weaknesses in terms of attention to common postpartum problems and warning signs, especially regarding to signs of pre-eclampsia/eclampsia, infection and thromboembolism, as well as guidelines on physical activity. Case 1 had better adequacy in the continuity of care in relation to complications in the prenatal and postpartum.

Table 4

Analysis and judgment matrix of postpartum care for women in primary care: execution dimension and its sub-dimensions in three cities in the South Region, Brazil, 2019.

Sub dimension	Criterion or indicator	ES	OS 1	OS 2	OS 3
Longitudinality (5 points)	Involvement of families and/or partners in the women's healthcare from prenatal to postpartum	1	0.25	0	1
	Establishing care over time	1	0.5	0.8	0.7
	Performing a postpartum care plan	1	0	0	0.2
	Continuity of care in the remote puerperal period	1	0.4	0	0.2
	Use of clinical protocols/guidelines for postpartum care for women	1	0	0	0
	IL = ($\sum OS / \sum ES * 100$)	100%	23%	16%	42%
Access (5 points)	Welcoming on spontaneous demand	1	1	1	1
	Pregnant women followed-up in prenatal care**	1	0	0	0
	Home visit in the first week	1	0	0	1
	Postpartum consultations	1	0.3	0.3	0.7
	Active search for women who missed postpartum consultations	1	1	1	1
	IL = ($\sum OS / \sum ES * 100$)	100%	46%	46%	74%
Physical health (5 points)	Investigation on complications/severities in prenatal care and childbirth and intervention for continuity of care when necessary	1	0.8	0.2	0.5
	Guidance, prevention, identification and intervention on common postpartum problems, as required	1	0.4	0.2	0.5
	Guidance, identification and intervention on postpartum warning signs, as required	1	0.4	0	0.4
	Advice on nutrition/hygiene/physical activity	1	0.4	0.5	0.5
	Iron supplementation 3 months of postpartum	1	1	1	1
	IL = ($\sum OS / \sum ES * 100$)	100%	60%	38%	58%
Mental health (5 points)	Investigation on family and social support during prenatal and postpartum	1	0.4	0.2	0.7
	Investigation on the history of mental illness/injury during prenatal and postpartum	1	0.8	0.4	0.6
	Investigation of emotional state during postpartum	1	0.2	0.2	0.5
	Guidance on common postpartum emotional alterations	1	0	0	0.5
	Applying PPD Diagnosis Scale when identifying warning signs	1	0	0	0
	IL = ($\sum OS / \sum ES * 100$)	100%	28%	16%	46%
Domestic violence (5 points)	Guidance on domestic violence	1.5	0.2	0.2	0.5
	Identification and attention on women in situation of domestic violence	2	0.8	0.8	1.5
	Notification on domestic violence cases	1.5	0.5	0	0.75
	IL = ($\sum OS / \sum ES * 100$)	100%	30%	20%	55%
Breastfeeding (5 points)	Recommendation and promotion of exclusive breastfeeding until 6 months	2	1	1	1.5
	Prevention, identification and treatment of problems related to breastfeeding	2	1.2	0.6	1.7
	Drug therapy (if any) is reviewed, paying attention to contraindications due to BF	1	1	1	1
		IL = ($\sum OS / \sum ES * 100$)	100%	64%	52%
Reproductive planning (5 points)	Providing sexual health advice	1.7	0.3	0.3	0.6
	Recommendation and guidance on reproductive rights and planning	1.7	0.8	0.25	1
	Involvement of the partner (if any) in reproductive planning.	1.6	0.2	0	0.4
	IL = ($\sum OS / \sum ES * 100$)	100%	26%	11%	40%

PPD = Postpartum Depression; ES = Expected score; OS = Observed score; IL = Implementation level (Satisfactory implementation: 76% to 100%; partial implementation: 51% to 75%; incipient implementation: 26% to 50%; and critical implementation: below 26%);¹⁹ **Indicator calculation data not available in PHUs. City data used.

Regarding “mental health”, all the cases showed weaknesses, with critical implementation for Case 2 and incipient implementation for the others.

In the “domestic violence” sub-dimension, Case 3 was partially implemented, surpassing the others by looking at this issue in the healthcare routine of all professionals, in addition to allowing discussions among team members

about compulsory notification. The main weakness of all the cases is the lack of guidance to women and the focus of attention on physical violence.

“Breastfeeding” had a satisfactory implementation for Case 3 and a partial implementation for Cases 1 and 2, with the main weaknesses of these being concentrated in the continuous support and guidance to women, in addition to

Table 5

Similarities and differences between favorable and unfavorable aspects for postpartum care implementation: execution dimension in three cities in the South Region, Brazil, 2019.

Case (s)	Favorable Aspects	Unfavorable Aspects
1, 2 and 3	Encouragement for breastfeeding Supplementation with ferrous sulfate	Lack of use of clinical protocol Lack of care in the remote puerperal period and postpartum care plan Low coverage of prenatal and postpartum consultations Complaint-based attention to common problems Lack of routine postpartum mental healthcare Lack of attention to domestic violence routine Reproductive planning focused on the use of hormonal contraceptive methods
1 and 2	-	Lack of routine for discussing clinical cases in a team meeting Low coverage of home visits in the first week of postpartum Lack of involvement of families/partners in healthcare
1 and 3	Institutionalization of postpartum consultation in the first 10 days	-
2 and 3	-	Difficulties in providing continuity of care in situations that occur during prenatal care and childbirth
1	Specialized physician in family health Physician takes advantage of the children's follow-up meetings to help women in the remote puerperal period Two postpartum consultations recommended Physician shows concern with comprehensive care for women's health. City program to encourage breastfeeding	Aspects of good quality of postpartum care are related to the physician's profile on care, not a practice of the entire team
2	The team is always available for women to be welcomed on spontaneous demands Breastfeeding space CHWs have a form for postpartum home visits	First consultation usually occurs after 30 days of postpartum Lack of postpartum nursing consultation
3	Health unit with advanced welcoming access Alignment among the services provided by different professionals Team meeting for case discussion Continuing education The team seeks to involve families/partners in healthcare Group of pregnant women Physicians and nurses specialized in family health Physicians and nurses show concern for comprehensive healthcare for women according to their needs	-

CHW = Community health worker.

pre-scheduled consultations and complaints. All the cases had weaknesses in the encouragement and preparation of women for breastfeeding since prenatal care.

The "reproductive planning" sub-dimension had critical implementation for Case 2 and incipient for the others. There was a focus in care on hormonal contraceptive methods, lack of approach to sexual health and involvement of partners in the choice of a method.

Table 5 describes the favorable and unfavorable aspects of the postpartum care implementation in relation to the execution dimension.

As for the favorable aspects, Case 3 stands out, which obtained the highest implementation level, especially for implementing the welcoming in the sense of advanced access in the health unit, holding a team specialized in family health and aligned between actions and concern with comprehensive care offered to women and involvement of families/partners in healthcare, carrying out discussions on cases, having Continuing Education present in the work routine and conduct a group of pregnant women.

In Case 1, the medical professional had a similar profile to the team in Case 3, which favored a positive evaluation of some criteria/indicators in both cases. In addition, this professional took advantage of the children's follow-up meetings to help women in the remote puerperium. It is noteworthy that the quality of postpartum care was considered an unfavorable aspect for being centered on the profile of a single professional, and not being an institutionalized practice.

For Cases 1 and 3, it is worth to emphasize the institutionalization of postpartum consultation in the first 10 days, a period of utmost importance to identify women's health needs in a timely manner, and this aspect was favored in both cases, a better implementation of the physical health and breastfeeding sub-dimensions.

With regard to unfavorable aspects, Case 2 stands out, which performs the first consultation only by a medical professional, generally after 30 days of postpartum.

Lack of use of clinical protocol, low coverage of prenatal and postpartum consultations, complaint-based attention to common problems, lack of mental health care routine and domestic violence in the postpartum and

reproductive planning care with a focus on the use of hormonal contraceptive methods were items considered unfavorable aspects for the three cases.

Discussion

The current study showed that postpartum care for women is not satisfactorily implemented in the PHC of the three studied cases.

The management dimension is important because it offers the necessary conditions for PHC professionals in providing quality care, had an incipient implementation. The absence of action programming for postpartum women was identified, being that the *Programação Anual de Saúde* (Annual Health Program) of the three realities, in the women's health category, prioritizes pregnant women and the follow-up on the child's growth and development.

Concerning material and physical resources, the current study found data similar to the literature.²¹ The lack of timely access to long-term contraceptive methods should be highlighted. These aspects have a direct impact on the performance of PHC professionals, who are unable to offer comprehensive care and adequate reproductive planning, which could allow women and partners to choose from different options.^{10,22}

Despite the movements over the years in Brazil in establishing comprehensive care for women's health, it can be seen that the focus of the organization of actions is still on the maternal-child and reproductive component.¹² In order to overcome this situation, it is essential to implement mechanisms that encourage the qualification of professionals in the routine of primary care services.^{9,23}

In Case 3, there is a constant concern with professional qualification, offering continuous spaces for continuing education; however, none of the cases promoted specific updates on postpartum issues.

Another way to qualify care is through the use of clinical guidelines based on the best available scientific evidence.^{9,24} Nevertheless, only Case 2 was going through a process of implementing a clinical protocol for nurses that included postpartum care.

The "mechanisms for coordination of care and intersectorality" sub-dimension had the highest implementation level for the three cases. It is noteworthy that Case 1 had as a favorable aspect on the follow-up of indicators of postpartum consultations, which can help in health planning for women.

In Case 2, it is worth underlining the good articulation between PHC and the maternity hospital, allowing women to leave the hospital with their first postpartum consultation scheduled at the health unit, a strategy indicated in the literature as an importance to increase women's adherence to the consultations and enable

continuity of care.⁶ Accordingly, it is the responsibility of the city management to ensure communication between the maternity and the PHC teams, in addition to provide organizational conditions for the early recruitment of postpartum women by the PHC staff.¹⁰

In addition to the good flow of the healthcare network, it is important that the city health management makes articulations with different sectors of the society, in order to provide comprehensive care for women and aid in the resolution of complex problems, especially with social workers. Of the analyzed cases, only two have established flows for specific cases (homeless people and violence against women and children).

As for the execution dimension, it should be highlighted that the training for professional to work in a multidisciplinary way is one of the essential requirements for the PHC staff to fulfill its objectives within the health system, in addition to the importance of having a professional training plan and paying attention to the specificities in PHC,⁹ therefore, implying for a better care for postpartum women. In the current study, it was possible to evidence this aspect for Cases 1 and 3, where the implementation level was favored by the professional's profile, consisted of specialists in family health. Moreover, in Case 3, there was the continuing education routine instituted in the team.

Another important aspect is that at least one postpartum consultation of up to 42 days is necessary,¹⁰ ideally at least two postpartum contacts, one in the first week and another at the end of 42 days, in order to meet the main needs of these women in this period, thus enabling health promotion, disease prevention and timely care.^{2,7,10} It was identified that only Cases 1 and 3 have institutionalized the first consultation in the first 10 days.

In addition, in order to optimize postpartum care, early guidance should begin during pregnancy, with the development of a postpartum care plan that addresses emotional health, maternity challenges and postpartum recovery, thus discussing the purpose and the importance of postpartum care, as well as the types of services and support available.²⁵ In the three analyzed cases, women's healthcare is provided by the same professionals, but longitudinality is undermined by the lack of preparation of a postpartum care plan and follow-up in the remote puerperal period.

Care must go beyond the first weeks of postpartum, where the follow-up of children's growth and development in the first year of life is an opportunity for health professionals to assist women's health needs,²⁶ an opportunity that is used in some situations perceived in Case 1 by the individual initiative of the family physician.

When analyzing the "access" sub-dimension, Cases 1 and 2 did not reach the expected score for the number

of postpartum consultations and home visits. Moreover, Case 2 performs the first consultation around 30 days of postpartum, which undermines timely care, especially in situations that must be managed in the first days after childbirth.^{2,7,10,27}

All the cases reached the maximum score in the criterion “iron supplementation 3 months of postpartum”, which is an established protocol in postpartum care; and, in general, physical health had a systematic care in all the cases. In addition, the sub-dimension with the highest implementation level was “breastfeeding”, an issue that is constantly addressed in professional practice – through qualifications – and in health planning. These aspects reinforce the importance of adopting clinical protocols and continuing education. On the other hand, these results may be related to the normative nature of actions, as well as a focus on child’s health, in the case of breastfeeding.

Regarding to the “mental health” and “domestic violence” sub-dimensions, they were identified that they are healthcare practices that are not part of the postpartum care routine, and their approach depends on the sensitivity and individual knowledge on the professionals’ behalf.

Emotional changes and signs of postpartum depression (PPD) are empirically identified, with insufficient knowledge on the issue and lack of use of a systematic instrument to track PPD, which corroborates in the literature.²⁸ The prevalence of PPD varies from 10 to 15%, being higher in developing countries,^{5,28,29} and approximately 90% of the cases can be managed in PHC,²⁹ which indicates the urgency of qualifying professionals to deal with this kind of problem.

As for domestic violence, this study found that there is greater attention to the physical dimension; and, in all the cases, professionals do not address this issue in the postpartum care plan. A Brazilian study identified that 30% of the surveyed women suffered some form of physical violence with an intimate partner in the first months after childbirth.⁴ This data highlights the magnitude of the issue and the need to fight the problem,⁴ in regard to all types of violence, since this constitutes a risk factor for PPD^{4,5} and also for the onset of problems during the follow-up of a child’s growth/development.⁴

Regarding reproductive planning, it is fundamental that professionals minimally advise on the resumption of sexual activity, libido alterations, dyspareunia, prevention and diagnosis of sexually transmitted infections, and on the free exercise of sexuality and pleasure,^{2,7,10} in addition to providing guidance on reproductive rights, including access and the right to choose different contraceptives according to clinical conditions, and involving partners in the decision-making process.^{10,22} Due to the respect on this issue, this study identified that, in all the cases, care

is directed in the definition of contraceptive method, with a focus on hormonal methods.

Studies have found a 40% prevalence of women with sexual health problems up to one year of postpartum³ and a 27.2% prevalence of rapid repeat pregnancy, which is less likely to occur with long-term contraceptive use,³⁰ issues that were neglected in the studied cases.

As limitations of this study, the lack of generalization of the data should be highlighted, but the case study allows theoretical generalization, while the replication to other units of analysis leads to the external validity of the study.¹⁴ Furthermore, the study analyzed broad and complex dimensions and sub-dimensions, having as a limitation of the impossibility to deepen the analysis and discussion of each one of them, but the triangulation of the gathered data helped in the elaboration of the judgment value, in order to ensure that the main results were not neglected.¹⁵

In order to strengthen the internal validity of the study, the following items were used: consensus conference for MAJ validation;¹⁸ triangulation of data from different sources of evidence, allowing verification of the reliability and interpretation of the collected data;^{14,15} pilot testing of data collection instruments; and rigor in the analysis according to the theory program.¹⁷

As the final considerations, it was found that there was incipient implementation of postpartum care for the management dimension, as well as incipient (Cases 1 and 2) and partial implementation (Case 3) for the execution dimension in the three analyzed cases, making it possible to identify the main gaps in the program, which, being ideally implemented, has the potential to reduce maternal morbidity and mortality and help women from the perspective of comprehensive care, with a focus on their health needs.

It was identified that management does not provide the ideal conditions for PHC in most of the analyzed criteria/indicators, and the dimension “execution” does not incorporate the main women’s health needs.

As the main recommendations, this study indicates that there should be: follow-ups for indicators and action planning on postpartum care; implementation of clinical guidelines; continuing qualification of health professionals, with a view in providing comprehensive care for women, especially in order to overcome the focus on physical health and maternal-child care; and timely supply of long-acting contraceptive methods. These aspects are directly related to the performance of the city health management, which is responsible for providing the ideal healthcare conditions.

This study showed that the proposed theoretical model¹⁷ has the potential to be replicated in other places, both in Brazil and in other countries, as health necessities

for postpartum women are common in different realities, there are specificities.

Author's contribution

Baratieri T contributed to the design, structuring, analysis and interpretation of data, writing of the article and the approval of the final version. Natal S contributed to the design, structuring, analysis, interpretation of data, critical review of the article and the approval of the final version. The authors declare no conflict of interest.

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