



## Postpartum period: study of guidelines for Primary Health Care

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### Abstract

*Objectives:* to identify convergences and divergences between the recommendations of the World Health Organization and those of the Ministry of Health for postpartum care in Primary Health Care.

*Methods:* descriptive documentary research using institutional documents available electronically carried out through a comparative reading of the recommendations of the World Health Organization and the Ministry of Health between the years 2022-2024; 38 of the 63 recommendations of the World Health Organization were compared, excluding those at the hospital level, central management and those very similar.

*Results:* convergent recommendations were identified: universal eye screening, universal neonatal hearing screening and routine neonatal vaccination; partially convergent recommendations: management regarding breast engorgement, guidance on physical activities and vitamin D supplementation for children; and divergent recommendations: routine pelvic floor muscle training, use of a validated instrument for the screening for depression and anxiety in the postpartum period, vitamin A supplementation in the postpartum period and appropriate time for the newborn's first bath.

*Conclusion:* among the recommendations studied, 31.6% were convergent, 36.8% were partially convergent and 31.6% divergent. The partially convergent and divergent recommendations totaled 68.4%, indicating the need for their revision by the Ministry of Health.

**Key words** World Health Organization, Primary health care, Postpartum period, Newborn, Guidelines as topic



## Introduction

Primary Healthcare (PHC) has the Family Health Strategy (ESF – Portuguese acronym) as its structuring axis, which acts in both prenatal and postpartum periods, as well as in the care provided to pregnant women, mothers, newborns, fathers/partners and to the family.<sup>1</sup> This model is composed of the Family Healthcare Team (eSF – Portuguese acronym), which in turn, is composed of community health agents (ACS – Portuguese acronym), health technician/assistant, nurse and physician; the Oral Healthcare team (eSB – Portuguese acronym), composed of dental technician/assistant and dental surgeon<sup>2</sup> and the Multidisciplinary Primary Healthcare team (eMulti – Portuguese acronym), composed of several professional categories, such as nutritionists, psychologists, social workers, physiotherapists, among others.<sup>3</sup> It has, as one of its characteristics, the bonds between health professionals and individuals, family and community, the execution of collective and individual activities, acting on the healthcare units and outdoor environments.<sup>2</sup>

Puerperal care is important in order to follow-up the health of both mothers and newborns (NB), that is, an assistance that should be valued since the early moments of pregnancy and emphasized by health professionals over the prenatal period.<sup>1</sup> In order to achieve adequate care, the existence of protocols in health services with guidelines to professionals so that they can opt for the most appropriate conduct in several health situations is important, aiming the wellbeing of users and integrative care. Given the above, it is necessary that these guidelines are based on current studies on the subject.

The last publications of the Ministry of Health (MS – Portuguese acronym) for PHC with guidelines on integrative mother and child puerperal care are present on the Primary Care Manuals “Low-risk Prenatal Care” (2012)<sup>1</sup> and “Child health: growth and development” (2012)<sup>4</sup> and in the Protocols of Primary Health (Women’s Healthcare) (2016).<sup>5</sup>

In 2022, the World Health Organization (WHO) updated and expanded its recommendations from 2014 (*WHO recommendations on postnatal care of the mother and newborn*) into the document “*Recommendations on Maternal and Newborn Care for a Positive Postnatal Experience*”.<sup>6</sup> The recommendations aim to contribute with a higher protection for both mother and NB, understanding the puerperium as a critical period for both, as well as for the partner, parents, caregivers and family.<sup>6</sup>

We did not find, in the literature, any article that confronts the guidelines of these two institutions (WHO and MS). Accordingly, the objective of this article was to identify convergences and divergences between recommendations from WHO and MS concerning healthcare in the postpartum period in PHC.

## Methods

Descriptive documentary research of institutional documents available online. The documentary study uses already existent data and relies on all types of documents, which has a very broad conceptualization (a fragment of ceramic, inscriptions in walls, newspapers, among others), some of the most used in surveys are the institutional, personal and legal documents.<sup>7</sup> This study was based on the WHO material “Recommendations on Maternal and Newborn Care for a Positive Postnatal Experience”<sup>6</sup> and the MS materials: “Primary Care Journals, n. 32 – Low-risk prenatal care”,<sup>1</sup> “Primary Care Journals, n. 33 – Child health: growth and development”<sup>4</sup> and “Protocols of Primary Health: Women’s Healthcare”.<sup>5</sup> The standards of the Ministry of Health were assessed, considering as gold-standard the recommendations from WHO, in order to verify its adequacy (normative assessment). It was elaborated in the period between October 2022 and March 2024, period that comprised the reading of material, selection of recommendations related to PHC in the WHO document, the search for correspondent guidelines in the MS material, as well as in other scientific publications concerning the subjects approached.

We classified the recommendations as convergent, partially convergent and divergent, which was used for the structuring of the demonstrations in Tables.

The WHO material is composed of 55 items, some with sub items a, b, and c, totaling 63 recommendations. This study excluded those hospital-based, those very similar and those focused on central management, comparing 38 of the 63 recommendations. The descriptions in tables occurred according to the translation of Ocean Translation,<sup>8</sup> in which the WHO enumeration was maintained, also kept in this study.

## Results and Discussion

### Converging recommendations

Among the 38 recommendations compared, 12 were convergent to the MS recommendations, corresponding 31.6% of the total of those assessed, according to Table 1.

The WHO recommends psychosocial and/or psychological interventions as prevention of anxiety and postpartum depression (recommendation 19).<sup>8</sup> Among the psychosocial ones, are the household visitations, social support and psycho-educational strategies; among the psychological ones are the cognitive behavioral therapy, interpersonal psychotherapy and mind-body interventions.<sup>6</sup> Thereby, the MS recommends psychosocial interventions as preventive actions for postpartum depression and anxiety,<sup>1,5</sup> according to the alternative indicated by WHO.

Table 1

Convergent recommendations about postnatal care between the World Health Organization and the Ministry of Health.		
Puerperal Woman Assessment		
Category of recommendation	World Health Organization	Ministry of Health
Recommended	19. Psychosocial and/or psychological interventions during the antenatal and postnatal period are recommended to prevent postpartum depression and anxiety. <sup>8</sup>	Prevention of postpartum depression, early identifying manners of mental suffering of the woman with previous assistance, highlight the importance of the support network in the prevention. <sup>1</sup> Observe carefully the psychic and social conditions of the woman, as well as the presence of anxiety. <sup>5</sup>
Context-specific recommendation	20. Oral iron supplementation, either alone or in combination with folic acid supplementation, may be provided to postpartum women for 6-12 weeks following childbirth for reducing the risk of anemia in settings where gestational anemia is of public health concern. <sup>8</sup>	Prescription of iron supplementation (40mg/day), up to three months after delivery, for women with and without anemia diagnosis. <sup>1,5</sup>
Recommended	24. Provision of comprehensive contraceptive information and services during postnatal care is recommended. <sup>8</sup>	To investigate reproductive planning, whether the woman intend to have more children, if she intends to use contraceptive methods, which were the already used ones and which one she prefers. <sup>1</sup> To guide about the return of sexual activities and clarify uncertainties. <sup>5</sup>
Newborn Care		
Recommended	26. Universal newborn screening for abnormalities of the eye is recommended and should be accompanied by diagnostic and management services for children identified with an abnormality. <sup>3</sup>	To verify the execution of the Red Reflex Test. <sup>5</sup> To assess pupillary light reflex with the red reflex test or Bruckner test. <sup>5</sup> In case of abnormality, the assessment with an ophthalmologist should occur urgently. <sup>4</sup>
Recommended	27. Universal newborn hearing screening (UNHS) with otoacoustic emissions (OAE) or automated auditory brainstem response (AABR) is recommended for early identification of permanent bilateral hearing loss (PBHL). UNHS should be accompanied by diagnostic and management services for children identified with hearing loss. <sup>8</sup>	To guide the family for performing Universal Neonatal Hearing Screening (UNHS) or newborn hearing screening. <sup>4</sup> To verify the execution of newborn hearing screening. <sup>5</sup>
Recommended	34. Newborn immunization should be promoted as per the latest existing WHO recommendations for routine immunization. <sup>8</sup>	To identify whether doses of BCG and HBV vaccines were provided in the maternity hospital, referring to its execution if necessary. <sup>1,4,5</sup>
Recommended	37. Gentle whole-body massage may be considered for term, healthy newborns for its possible benefits to growth and development. <sup>8</sup>	The habit of performing massages may help the child with a quieter sleep. <sup>4</sup> Shantala massage contributes to the strengthening of the mother and baby bond, helps with the reestablishment of normal functions and soothing, eases abdominal cramps and improves sleep, promoting mother and child health. <sup>1</sup>
Recommended	41. Psychosocial interventions to support maternal mental health should be integrated into early childhood health and development services. <sup>8</sup>	Psychosocial maternal assistance is provided by eSF, which is also responsible by the management of infant growing and development. <sup>1,4,5</sup> The mother with high-risk of postpartum depression should be referred to specialized care. <sup>1,5</sup>
Recommended	43b. Health-facility staff who provide infant feeding services, including breastfeeding support, should have sufficient knowledge, competence and skills to support women to breastfeed. <sup>8</sup>	The puerperium assistance in PHC is provided by eSF. <sup>1,4,5</sup> composed of professionals with presumed knowledge and technical skill to guide about breastfeeding and mother and child nutrition.
Health Systems and Health Promotion Intervention		
Recommended	48. Home visits during the first week after birth by skilled health personnel or a trained community health worker are recommended for the postnatal care of healthy women and newborns. Where home visits are not feasible or not preferred, outpatient postnatal care contacts are recommended. <sup>8</sup>	Home visits (HV) in the first week after birth. <sup>1,4</sup> HV and return of the mother and NB to the healthcare services within seven and ten days after birth. <sup>1</sup>
Recommended	50a. Task sharing the promotion of health-related behaviors for maternal and newborn health to a broad range of cadres, including lay health workers, auxiliary nurses, nurses, midwives and doctors, is recommended. <sup>8</sup>	The care provided to puerperal women and NBs in PHC is performed by the eSF. <sup>1,4,5</sup>
Recommended	50b. Task sharing the provision of recommended postpartum contraception methods to a broad range of cadres, including auxiliary nurses, nurses, midwives and doctors, is recommended. <sup>8</sup>	The actions related to contraceptive methods/reproductive planning are performed by the eSF. <sup>1,5</sup>

NB=newborn; eSF=Family Healthcare Team (*equipe de Saúde da Família*); PHC=Primary Healthcare.

The WHO recommends oral iron supplementation, isolate or in combination with folic acid, to postpartum women, for six to 12 weeks, in order to reduce risk of anemia in locations where anemia in pregnancy is a public health problem (recommendation 20),<sup>8</sup> that is, in places whose prevalence of pregnant women with anemia is 20% or higher.<sup>6</sup> In Brazil, the prevalence of anemia in pregnancy is 23%.<sup>9</sup> Converging with this datum and the WHO recommendation, the MS recommends oral iron supplementation for up to three months after birth for women with or without anemia diagnosis.<sup>1,5</sup> In Ceará, it was observed that the use of iron supplementation by postpartum women was not following the MS recommendations, which guide the use for 100% of puerperal women,<sup>10</sup> that is, only 20% women in the postpartum period used the supplementation, whilst 80% did not. In comparison, 83.3% of pregnant women used iron supplementation and 16.7% did not.<sup>10</sup> Of pregnant and puerperal women who received prescription of iron supplementation by professionals, 67.5% performed the use.<sup>10</sup> Of the 32.5% that did not use, 17.5% were due to the lack of prescription and orientation of the professional and we conclude that the non-prescription, by the professional, of iron supplementation, is a determining factor for the non-use.<sup>10</sup> Thereby, it is necessary to assess and manage the actions guided by the MS, aiming to prevent diseases and to recognize the results obtained.

The WHO recommends the provision of information and broad contraceptive services, with sharing of tasks in the provisions of contraceptive method to a broad range of cases (recommendation 24).<sup>8</sup> In agreement with these recommendations, such information and services are made available by means of the reproductive planning, performed in PHC by the eSF, which among other attributions, should recognize women of childbearing age in the territory and those who desire or have children.<sup>1</sup>

The WHO recommends neonatal universal screening for ocular abnormalities, diagnosis services and treatment for children identified with abnormalities (recommendation 26).<sup>8</sup> Thereby, the MS recommends the execution of the red reflex test in the first consultation of the NB in the PHC, and again at four, six, 12 months and at two years of age.<sup>4</sup> The preterm newborn of 32 weeks or less and/or under 1500g should be examined with pupil dilation by an ophthalmologist in the sixth week and followed up according to the clinical condition.<sup>4</sup>

The Universal Newborn Hearing Screening (UNHS) is recommended by WHO (recommendation 27),<sup>8</sup> the MS recommends its execution in the first week of the NB's life.<sup>1</sup> Authors of a study carried out with data of three public maternity hospitals from Rio Grande do Norte, from 2015 to 2019, observed an increase in UNHS execution.<sup>11</sup> The year 2015 demonstrated the lowest coverage, when

48.9% of babies were screened, and the highest in 2019, with 89.4% of babies.<sup>11</sup> In these five years, 71.9% of babies underwent the UNHS, demonstrating that, in spite of the increase in the coverage observed in the period, it did not reach universality (100% of babies screened),<sup>11</sup> indicating a necessary effort for the improvement in the access to this assistance.

The WHO recommends for all newborns vaccination against hepatitis B, preferentially in the first 24h; BCG vaccine in countries with high incidence of tuberculosis and/or leprosy and the bivalent oral polio vaccine, in countries in which the disease is endemic or with high-risk of importation<sup>6</sup> (recommendation 34).<sup>8</sup> The PHC professionals should verify whether the application of BCG and hepatitis B vaccines were performed at the maternity hospital, if not, in the first opportunity, registered in the medical records, and in the Child Health Booklet,<sup>1</sup> observing that Brazil is among the 30 countries with highest tuberculosis load in the world<sup>12</sup> and leprosy is still a public health problem in Brazil.<sup>13</sup> The vaccination against poliomyelitis is started only after two months of age with the inactivated poliovirus vaccine (IPV),<sup>14</sup> observing that poliomyelitis is currently considered endemic only in Afghanistan and Pakistan.<sup>15</sup> The MS recommends to update the vaccination of mothers, if necessary.<sup>5</sup> Thereby, we observed that the MS is in agreement with the WHO recommendations for neonatal routine immunization, according to the epidemiological characteristics of the country. However, we draw attention to the distribution of neonatal deaths, according to the group of avoidable causes by intervention of the Unified Health System (SUS – Portuguese acronym).<sup>16</sup> Among the main causes of death and the respective group of avoidable causes stood: neonatal tetanus (reducible by actions of immunoprevention) respiratory distress syndrome (reducible by adequate care provided to women during pregnancy), perinatal asphyxia (reducible by adequate care during delivery), bacterial sepsis of the NB (reducible by adequate care to the fetus and NB), non-specific pneumonia (reducible by adequate diagnosis and treatment) and sudden infant death syndrome (reducible by actions of health promotion).<sup>16</sup> We highlight the importance of vaccination against tetanus, mainly in the puerperal-pregnancy cycle with doses of the adult double diphtheria and tetanus vaccine (DT), if necessary, and a dose of the DTaP vaccine, each pregnancy, from the 20<sup>th</sup> week up to the puerperal period (45 days after delivery), regardless of the previous vaccination.<sup>14</sup> It is necessary that professionals emphasize the importance of vaccination in the diverse life cycles (childhood, adolescence, pregnancy, puerperium, adulthood and elderly), as well as providing means to ease the access to the general population. Besides informing parents about general care to the NB, alerting

about signs of severity so that they can identify them and act in each situation.

The WHO recommends a gentle massage of full body for healthy NBs born at term (recommendation 37),<sup>8</sup> MS mentions the benefits of *Shantala*, a massage for babies from India, and informs that the Integrative and Supplementary Practices may be used in several life stages, including puerperium<sup>1</sup> and childhood.<sup>1,4</sup> We highlight that self-care and care to the NB is influenced by the puerperal women's reality, life conditions, family and support network, emotional status, having other children or not, time and quietness, are situations that may contribute, impair or even avert the development of some actions of women in the postpartum period.

The psychosocial interventions for supporting mothers should be integrated to children healthcare services, according to WHO recommendations (recommendation 41).<sup>8</sup> In the PHC both are performed at Basic Health Units (UBS – Portuguese acronym) by the same professionals.<sup>1,4,5</sup> Among the interventions for mental disorders common at puerperium (depression and anxiety) are the routine questionnaires (about mental status and social wellbeing of women) and the psychosocial support in each postnatal consultation, including fathers/partners/caregivers with the intent of identifying risks for both mother and baby, such as violence and absence of fathers in the parental care.<sup>6</sup>

Knowledge on nutrition and breastfeeding by health professionals is necessary, as WHO recommends (recommendation 43b).<sup>8</sup> Similarly, these orientations are conducted by the eSF in the MS, composed of mid-level practitioners (health technicians/assistants, ACS) and higher education professionals (nurses, physicians), with potential support from the eSB (oral health technicians/assistants, dental surgeon)<sup>2</sup> and from the eMulti (with possibility of a nutritionist).<sup>3</sup>

The WHO recommends home visitation (HV) in the first week after birth (recommendation 48)<sup>8</sup>, as well as the MS. If the NB is of risk, the MS recommends that it occurs in the first three days.<sup>1,5</sup> HV is an attribution of the ACS generally, however, it is a practice to be performed by all the eSF team, as the first consultation of the puerperal woman and NB may be performed at home, by a physician or nurse.<sup>4</sup> In an integrative review, the distance between the healthcare unit and the residence stood as one of the most frequent difficulties concerning HV implementation<sup>17</sup> and there were no agreement concerning the ideal moment for this visitation, although the emphasis for it to occur as soon as possible was unanimous.<sup>17</sup> The MS itself recommends three distinct manners for HV execution: in the first week after birth,<sup>1,4</sup> in the first week after newborn hospital discharge,<sup>1,5</sup> and between seven and ten days after birth.<sup>1</sup>

The WHO recommends the share of tasks for maternal and neonatal health promotion to a large range of cases

(recommendation 50a).<sup>8</sup> Among these tasks are postpartum care, reproductive planning, nutritional guidance, basic care to the NB, exclusive breastfeeding, immunization, among others.<sup>6</sup> In relation to the MS, the sharing of these tasks occurs within eSF members,<sup>1,4,5</sup> with potential support of the eSB<sup>2</sup> and eMulti.<sup>3</sup>

The WHO also recommends the sharing of provision of contraceptive methods (recommendation 50b)<sup>8</sup> among which are to start and maintain injectable contraceptive methods, implantation of intrauterine devices (IUD) and implants.<sup>6</sup> The contraceptive methods provided by the MS are also provided by eSF professionals.<sup>1,5</sup>

### Partially convergent recommendations

Table 2 presents 14 of the 38 WHO recommendations that were considered partially convergent, comprising 36.8% of the analyzed recommendations.

The WHO recommends, as a preventive measure, HIV tests to puerperal women that did not perform the contact test in the prenatal period or at the third semester, in regions with high indexes of HIV (recommendation 2a).<sup>8</sup> The MS also recommends its execution at the postpartum period, however for those who were not tested during pregnancy or delivery,<sup>1</sup> the WHO does not mention the moment of delivery.

In the treatment of blocked milk duct (recommendation 8) and the prevention of postpartum mastitis (recommendation 10), the WHO recommends the use of hot and cold compresses, according to the preference of women,<sup>8</sup> whilst MS recommends only the use of cold compresses,<sup>5</sup> and does not indicate the use of hot compress as an option of care.

It is recommended by the WHO for counseling about family diet with information on constipation (recommendation 12);<sup>8</sup> this recommendation is present in MS materials,<sup>1,5</sup> however it does not show details about how the nutrition of the puerperal woman should be and its relation to constipation.

With regard to the practice of physical activities in the puerperium recommended by the WHO (recommendation 22),<sup>8</sup> the MS recommends different activities at each postpartum stage (immediate, late and remote), observing that the late puerperium include the performance of exercises for the pelvic floor,<sup>5</sup> which WHO does not recommend.

Concerning the WHO recommendation that signs such as fever, convulsion history, fast breathing, among others, should be observed in each contact (recommendation 25),<sup>8</sup> the MS does not specify these recommendations similarly, however it recommends to be aware of signs of alert in the first consultation of the NB, drawing attention to jaundice and signs related to respiratory distress.<sup>4</sup>

Table 2

Partially convergent recommendations about postnatal care between the World Health Organization and the Ministry of Health.

Puerperal Woman Assessment		Ministry of Health
Category of recommendation	World Health Organization	
Context-specific recommendation	2a. In high HIV burden settings, catch-up postpartum HIV testing is needed for women of HIV-negative or unknown status who missed early antenatal contact testing or retesting in late pregnancy at a third trimester visit. <sup>8</sup>	To offer HIV testing with pre and post test counseling to women who did not perform it during pregnancy and delivery. <sup>1</sup>
Recommended	8. For treatment of breast engorgement in the postpartum period, women should be counseled and supported to practice responsive breastfeeding, good positioning and attachment of the baby to the breast, expression of breastmilk, and the use of warm or cold compresses, based on a woman's preferences. <sup>8</sup>	To examine breasts, verifying the presence of engorgement or scars that impair breastfeeding. <sup>1</sup> To observe and assess breastfeeding for the search for a good positioning and latch. <sup>1</sup> To guide towards the manual expression of breastmilk, the storage and the donation of exceeding breastmilk to a Breastmilk Bank <sup>1</sup> . In case of engorged breasts, always perform the manual expression of the breastmilk to ease the latch and avoid scars. <sup>1</sup> To guide the execution of soft massages with circular movements; frequent breastfeeding without pre-established schedule; use of nursing bra with large and firm straps; use of cold compress, and painkillers in case of pain <sup>5</sup>
Recommended	10. For the prevention of mastitis in the postpartum period, women should be counseled and supported to practice responsive breastfeeding, good positioning and attachment of the baby to the breast, hand expression of breastmilk, and the use of warm or cold compresses, based on a woman's preferences. <sup>8</sup>	To clarify about care with breasts in order to avoid mastitis, <sup>5</sup> whenever possible, to guide the mother to maintain breastfeeding in the impaired breast <sup>1,5</sup> and to start the breastfeeding by the non-affected breast, to express adequately the breasts with manual expression. <sup>5</sup> The latch and positioning should be corrected if necessary. <sup>1</sup> Offer emotional support, maternal rest and abundant hydration. <sup>5</sup> In case of pain or fever, prescribe medication. <sup>5</sup> Perform antibiotic therapy. <sup>5</sup> Prevention is similar of those cases of breast engorgement and scars. <sup>5</sup> Mastitis demands medical assessment for the definition of the adequate drug treatment. <sup>1</sup>
Recommended	12. Dietary advice and information on factors associated with constipation should be offered to women for the prevention of postpartum constipation. <sup>8</sup>	To investigate and guide about nutrition, <sup>1</sup> frequent hydration, adequate nutrition in small portions. <sup>5</sup>
Recommended	22. All postpartum women without contraindication should <sup>8</sup> : <ul style="list-style-type: none"><li>• undertake regular physical activity throughout the postpartum period;</li><li>• do at least 150 minutes of physical activity throughout the week for substantial health benefits; and</li><li>• incorporate a variety of physical and muscle-strengthening activities; adding gentle stretching may also be beneficial.</li></ul>	To guide the practice of physical activities, <sup>1,5</sup> breathing, posture and muscle strengthening exercises, including exercises for the pelvic floor. <sup>5</sup>
Newborn Care		
Recommended	25. The following signs should be assessed during each postnatal care contact, and the newborn should be referred for further evaluation if any of the signs is present: not feeding well; history of convulsions; fast breathing (breathing rate >60 per minute); severe chest indrawing; no spontaneous movement; fever (temperature >37.5°C); low body temperature (temperature< 35.5°C); any jaundice in the first 24 hours after birth, or yellow palms and soles at any age. The parents and family should be encourage to seek health care early if they identify any of the above danger signs between postnatal care visits. <sup>8</sup>	To assess and orient parents about danger signs in the children under 2 months and the need for seek health care. <sup>4</sup> To observe danger signs to the health of children in all HV. <sup>4</sup> Children under 2 months may get sick and die fast. <sup>4</sup> It is necessary the urgent referral to a health care service for babies that demonstrate signs such as: food rejection (does not drink water or cannot be breastfed), important vomits, convulsions or apnea, heart rate under 100 bpm, lethargy or unconsciousness, fast breathing (higher than 60 breaths per minute), diminished activity, presence of subcostal retractions, nose flaring, fever (from 37.5°C), hypothermia (under 35.5°C), visible jaundice below the belly or in the first 24 hours of life, among other signs
Recommended	32a. Clean, dry umbilical cord care is recommended. <sup>8</sup>	To guide about care with umbilical cord that should be maintained clean and dry and fall within two weeks. <sup>4</sup> To observe characteristics of the umbilical stump. <sup>1,5</sup> Daily clean with 0.5% chlorhexidine or 70% ethyl alcohol should be maintained up to the fall. <sup>1</sup> To guide about care. <sup>5</sup>
Context-specific recommendation	32b. Daily application of 4% chlorhexidine (7.1% chlorhexidine digluconate aqueous solution or gel, delivering 4% chlorhexidine) to the umbilical cord stump in the first week after birth is recommended only in settings where harmful traditional substances (e.g. animal dung) are commonly used on the umbilical cord. <sup>8</sup>	No specification of the population that will use chlorhexidine, the same recommendation for the general population.

Recommended	33. Putting the baby to sleep in the supine position during the first year is recommended to prevent sudden infant death syndrome (SIDS) and sudden unexpected death in infancy (SUDI). <sup>8</sup>	Guiding parents and caregivers for putting the baby to sleep in supine position and its relation with the protection to the nursing against sudden death. <sup>4</sup> Alerting about risk of sudden death within the first year of life, especially in the first six months.
Context-specific recommendation	36. Vitamin D supplementation in breastfed, term infants is recommended for improving infant health outcomes only in the context of rigorous research.	Indicated in case of prematurity, dark skin, inadequate sunlight exposure and children of strict vegetarian mothers being breastfed. <sup>4</sup> There is no recommendation concerning universal supplementation. <sup>4</sup>
Recommended	42. All babies should be exclusively breastfed from birth until 6 months of age. Mothers should be counseled and provided with support for exclusive breastfeeding at each postnatal contact <sup>8</sup> .	Guiding exclusive breastfeeding up to six months. <sup>1,4,5</sup> without need for teas, water or other food <sup>1</sup> and without unnecessary prescription of other milks. <sup>4</sup> To encourage and help the family with barriers in breastfeeding <sup>4,5</sup> emphasizing its benefits and importance. <sup>5</sup>
<b>Health Systems and Health Promotion Intervention</b>		
Recommended	44. A minimum of four postnatal care contacts is recommended. If birth is in a health facility, healthy women and newborns should receive postnatal care in the facility for at least 24 hours after birth. If birth is at home, the first postnatal contact should be as early as possible within 24 hours of birth. At least three additional postnatal contacts are recommended for healthy women and newborns, between 48 and 72 hours, between 7 and 14 days, and during week six after birth. <sup>8</sup>	HV in the first week after birth. <sup>1,4</sup> HV in the first week after baby hospital discharge. <sup>1,5</sup> HV and return of the mother and NB to the healthcare service within seven and ten days after birth <sup>1</sup> Puerperal consultation in up to 42 days after birth. <sup>1,5</sup>
Recommended with targeted monitoring and evaluation	52. Interventions to promote the involvement of men during pregnancy, childbirth and after birth are recommended to facilitate and support improved self-care of women, home care practices for women and newborns, and use of skilled care for women and newborns during pregnancy, childbirth and the postnatal period, and to increase the timely use of facility care for obstetric and newborn complications. These interventions are recommended, provided they are implemented in a way that respects, promotes and facilitates women's choices and their autonomy in decision-making, and that supports women in taking care of themselves and their newborns. <sup>8</sup>	The eSF professionals who work in prenatal and postpartum care play an important role in including the father (or partner) and the family <sup>4</sup> in the care during these periods. <sup>1</sup> The partner and people close to the mother and baby are important in the development of the trust relationship. <sup>1</sup> The support of the partner, family and friends acts preventively against mental suffering in the postpartum period. <sup>1</sup> The support of the family and the health team contributes to a more satisfactory postpartum period. <sup>1</sup> Care for the postpartum woman should include the father, the family (in its various configurations) and the entire related social network. <sup>5</sup> Pregnant women are referred for prenatal care with a specialist if they present gestational risk factors or risk situations, also in case of obstetric emergency. <sup>1,5</sup> The child is also referred to a specialist, according to the signs presented. <sup>4</sup>
Recommended	53. The use of home-based records, as a complement to facility-based records, is recommended for the care of pregnant and postpartum women, newborns and children, to improve care-seeking behavior, men's involvement and support in the household, maternal and child home care practices, infant and child feeding, and communication between health workers and women, parents and caregivers. <sup>8</sup>	*The terms family, partner and father in this text are considered broadly, considering several existing configurations of family organization. <sup>1</sup> There is no specific guidance with regard to the registry of consultations that occurred by means of home visitation.

HIV= Human immunodeficiency virus; HV= home visits; eSF= Family Healthcare Team (*equipe de Saúde da Família*).



Regarding the umbilical stump, the WHO recommends to maintain it clean and dry (recommendation 32a) with daily application of 4% chlorhexidine in the first week in specific situations (recommendation 32b);<sup>8</sup> similarly, the MS recommends clean and dry umbilical stump,<sup>4</sup> however recommending daily cleaning with 0.5% chlorhexidine or 70% ethyl alcohol until the decrease of the situations in general.<sup>1</sup> The orientation of 70% alcohol in the umbilical stump is considered a routine type of care.<sup>18,19</sup> However, washing and drying the umbilical stump did not demonstrate inferior results for the prevention of omphalitis in developed countries, compared to the use of antiseptic.<sup>20</sup>

The WHO recommends putting the baby to sleep in supine position during the first year after birth (recommendation 33);<sup>8</sup> the MS, in turn, does not clarify the age range in which this recommendation should be followed.

Concerning vitamin D, WHO recommends the supplementation only for nurslings in the context of a thorough research (recommendation 36);<sup>8</sup> the MS, in turn, in spite of recommending supplementation for a specific population,<sup>4</sup> does not mention the fact that its definition is based on a thorough research, observing that the MS material is from 2012. However, oral supplementation seems to be the most efficient method for obtaining, sufficiently, the serum vitamin D concentration, with recommended dose between 400 and 1200 daily IU for children aged from zero to five years, and between 800 and 2000 daily IU for pregnant women, especially on the third semester.<sup>21</sup>

The WHO recommends exclusive breastfeeding up to six months (recommendation 42),<sup>8</sup> as well as the MS,<sup>1,4,5</sup> which also recommends support to the family in difficulties,<sup>4,5</sup> however it does not highlight that mothers should be counseled and supported at each postnatal consultation regarding exclusive breastfeeding.

The WHO recommends at least three additional postnatal consultations, between 48 and 72 hours, between seven and 14 days and at the sixth week after birth, (recommendation 44);<sup>8</sup> the MS, in turn, two consultations (HV in the first week<sup>1,4</sup> and puerperal consultation up to 42 weeks after birth<sup>1,5</sup>). The periods indicated are not similar, although there is a possibility for them to occur in the same interval.

The WHO recommends the involvement of the father in the period of pregnancy, birth and after birth, since he respects, promotes and favors the choices of the woman and her autonomy (recommendation 52).<sup>8</sup> The MS also recommends this involvement,<sup>1,5</sup> however it does not highlight that the choice and autonomy of women should be prioritized in all of these stages (pregnancy, birth and puerperium), being important to consider the frequent

violence against women, making it necessary that the health professional is aware of its diverse forms and in all stages of the life of women.

With regard to the household registries recommended by the WHO (recommendation 53)<sup>8</sup>, in spite of the MS recommends the recording of anthropometric data,<sup>4</sup> vaccination, alteration of health conditions of women and NBs,<sup>1</sup> the type of food of the child,<sup>5</sup> among others, there is no specific recommendation or a reinforcement for the registries of consultations occurred in home visitation.

## Divergent recommendations

The divergent recommendations between WHO and MS comprised 31.6%, 12 of the 28 that were part of this study, described in Table 3. We considered recommendations present in the WHO material that were not approached in the MS material as divergent.

The WHO does not recommend the execution of routine physical exercises for the pelvic floor during the postpartum period (recommendation 7),<sup>8</sup> since there is no sufficient evidence of its effects after six months.<sup>6</sup> The early pelvic floor muscle training (PFMT) in the pregnancy probably prevents urinary incontinence in the late pregnancy period and reduces the risk of postpartum incontinence, particularly between three and six months.<sup>6</sup> On the other hand, in spite of the PFMT onset in the postpartum period is not recommended as a preventive measure, women with involuntary loss of small volumes of urine after delivery should be oriented with regard to its potential benefits.<sup>6</sup> In the absence of stronger evidence, it is agreed that PFMT performed at home, without supervision, can be beneficial and probably will not cause negative effects to these women, as well as being positive for the postpartum sexual function and promoting self-care.<sup>6</sup> In a systematic review, the authors concluded that PFMT resulted in positive effect for the prevention of urinary incontinence, with a significant increase of muscular strength in the immediate and late postpartum period,<sup>22</sup> a timespan not superior to that referred to by the WHO.

The WHO recommends pre-exposure prophylaxis (PrEP), to be started or continued by puerperal and/or lactating women with high-risk of HIV infection, as a combined strategy of prevention (recommendation 17), however, in the MS material, this strategy is not approached.

The WHO recommends the use of a validated tool to the screening for postpartum depression and anxiety (recommendation 18),<sup>8</sup> the MS mentions the tool called Edinburgh Postnatal Depression Scale (EPDS), and although it informs that postpartum depression can be identified more frequently by these instruments than clinical assessment,<sup>1</sup> it is not available and its use is



Table 3

Diverging recommendations about postnatal care between the World Health Organization and the Ministry of Health.		
Puerperal Woman Assessment		
Category of recommendation	World Health Organization	Ministry of Health
Not Recommended	7. For postpartum women, starting routine pelvic floor muscle training (PFMT) after childbirth for the prevention of postpartum urinary and fecal incontinence is not recommended. <sup>8</sup>	Recommending in the late puerperium frequent and gradual pelvic floor muscle training, in order to promote awareness and strengthening. <sup>5</sup>
Context-specific recommendation	17. Oral pre-exposure prophylaxis (PrEP) containing tenofovir/emtricitabine (TDF) should be started or continued as an additional prevention choice for postpartum and/or lactating women at substantial risk of HIV infection as part of combination HIV prevention approaches. <sup>8</sup>	Does not mention pre-exposure prophylaxis (PrEP).
Recommended	18. Screening for postpartum depression and anxiety using a validated instrument is recommended and should be accompanied by diagnostic and management services for women who screen positive. <sup>8</sup>	Asking all women about issues concerning humor alteration, sleep, appetite, pleasure and feelings related to their babies. <sup>1</sup> Referral of women with high-risk of postpartum depression to specialized treatment <sup>1,5</sup> or when portray several mental suffering. <sup>5</sup>
Not Recommended	21. Vitamin A supplementation in postpartum women for the prevention of maternal and infant morbidity and mortality is not recommended. <sup>8</sup>	All puerperal women residing in locations considered endemic for vitamin A deficiency, should receive, in the immediate postpartum, a megadose (200,000 IU, an oral route capsule) of vitamin A in the maternity hospital. <sup>1,4,5</sup>
Newborn Care		
Recommended	30. The first bath of a term, healthy newborn should be delayed for at least 24 hours after birth. <sup>8</sup>	Guiding about the bath of a child, water temperature around 37°C, not using talcum powder and not letting the child alone even with little water. <sup>4</sup>
Not Recommended	35a. Routine neonatal vitamin A supplementation is not recommended to reduce neonatal and infant mortality. <sup>8</sup>	Oral route administration of a megadose of vitamin A for residents of settings considered of risk.
Context-specific recommendation	35b. In settings with recent (within the last five years) and reliable data that indicate a high infant mortality rate (greater than 50 per 1000 live births) and a high prevalence of maternal vitamin A deficiency ( $\geq 10\%$ of pregnant women with serum retinol concentrations). <sup>8</sup>	Vitamin A megadose is recommended for children within six and 59 months, who reside in settings considered of risk <sup>4</sup> . Children within 6 and 11 months - 1 megadose of 100,000 IU. Children within 12 and 59 months - 1 megadose of 200,000 IU each six months.
Recommended	38. All infants and children should receive responsive care between 0 and 3 years of age; parents and other caregivers should be supported to provide responsive care. <sup>8</sup>	We could not find any content concerning responsive care.
Recommended	39. All infants and children should have early learning activities with their parents and other caregivers between 0 and 3 years of age; parents and other caregivers should be supported to engage in early learning with their infants and children. <sup>8</sup>	Early learning activities are not mentioned.
Recommended	40. Support for responsive care and early learning should be included as part of interventions for optimal nutrition of newborns, infants and young children. <sup>8</sup>	No content regarding responsive care and early learning being used as a strategy for optimal nutrition.
Recommended	43a. Facilities providing maternity and newborn services should have a clearly written breastfeeding policy that is routinely communicated to staff and parents. <sup>8</sup>	No recommendation for Basic Health Units to have a clearly written breastfeeding policy.
Context-specific recommendation	54. WHO recommends digital targeted client communication for behavior change regarding sexual, reproductive, maternal, newborn and child health, under the condition that concerns about sensitive content and data privacy are adequately addressed. <sup>8</sup>	No recommendation regarding digital targeted client communication.

not stimulated. EPDS is validated in Brazil and has a version in Portuguese.<sup>23</sup> Authors of a research carried out with puerperal women assisted by eSF, with the EPDS, identified that 39.13% of them had higher probability of developing postpartum depression,<sup>24</sup> demonstrating the importance of previous investigation. In an integrative review, the most mentioned risk factors for postpartum depression were the lack of family or partner support, and unintended pregnancy,<sup>25</sup> which highlights the need for effective care concerning reproductive planning and the awareness of the support network of the puerperal woman, baby and family to the subject. Depression is silent and silenced many times and strategies that contribute to its identification are important to increase the possibility of treatment and relief of suffering, providing higher safety and wellbeing to both mother and baby, and the divulgation of a validate instrument among health professionals is positive.

Vitamin A supplementation in the puerperium is not recommended by the WHO (recommendation 21),<sup>8</sup> which currently recommends the encouraging of a balanced and healthy diet for women consumption, considering that the recommendation of vitamin A in the postpartum period was based in low-quality evidence.<sup>6</sup> On the other hand, the MS recommends that puerperal women residing in areas considered endemic for vitamin A deficiency receive in the immediate postpartum period a megadose of vitamin A.<sup>1,4,5</sup>

The WHO recommends that the first bath of the healthy newborn at term should not occur before 24 hours after birth (recommendation 30).<sup>8</sup> Bathing in the first hours of life is associated with hypothermia in neonates,<sup>26,27</sup> with lower rates of hypothermia when the bath is performed after 24 hours and up to 48 hours of life.<sup>27</sup> Notwithstanding, the MS does not inform when this should occur.

Neonatal vitamin A routine supplementation is not recommended by the WHO (recommendation 35a),<sup>8</sup> but only for environments with reliable data from the last five years demonstrating high infant mortality rate and high prevalence of maternal vitamin A deficiency (recommendation 35b).<sup>8</sup> Thus, even though the MS recommends the supplementation for specific areas/population,<sup>4</sup> it cannot be affirmed that it is based in data from the last five years, since the material is from 2012. There is also a divergence in the administered dose and the child's age. The WHO recommends a single 50,000 IU dose in the first days of life,<sup>8</sup> whilst the MS recommends a 100,000 IU megadose between six and 11 months of life of the children and a 200,000 IU megadose per each six months for children between 12 and 59 months of life.<sup>4</sup> In a publication of 2019, concerning a research carried out in Ceará, the authors reported that vitamin A supplementation demonstrated benefits in infant development, however when it was applied in

malnourished children, it did not demonstrate significant results, indicating the need for improving the nutritional status, besides the supplementation itself, which is positive and should be maintained.<sup>28</sup> Notwithstanding, in spite of the time elapsed since the implementation of vitamin A supplementation in Brazil (1983), its deficiency is still prevalent in some states.<sup>29</sup>

The WHO recommends that babies and children receive responsive care between zero and three years old (recommendation 38),<sup>8</sup> the MS, in turn, does not approach this practice. This care consists of identifying and respond to manifestations of the child by means of moves, gestures, sounds and verbal requests, and is the basis for a good learning, protection of the children, trust building and social relationships, as well as to perceive and treat illnesses.<sup>30</sup> It demands to observe the tips of the child, interpret what he or she needs and wants, answering in an adequate and consistent manner. It also encompasses the responsive feeding.<sup>30</sup>

It is also in this manner that the WHO recommends early learning activities for all babies and children (from zero to three years old) with their parents and other caregivers (recommendation 39),<sup>8</sup> which is not present in the MS materials.

It is even recommended by the WHO that the support for responsive care and early learning should be included as part of the interventions for NB, babies and children nutrition (recommendation 40),<sup>8</sup> which is not present in MS recommendations.

With regard to breastfeeding, beyond the abovementioned recommendations, the WHO recommends that the facilities that offer maternity and newborn healthcare services have a clearly described breastfeeding policy (recommendation 43a),<sup>8</sup> which is not found in materials regarding assistance provided in the PHC of the MS.

The WHO recommends digital communication for behavioral change since there are concerns with the sensitive content and data privacy (recommendation 54),<sup>8</sup> although it is a subject not mentioned in the research material from the MS.

We highlight that the eSB and the eMulti are provided for in the ESF, providing assistance to the same population and they may act together in subjects related to oral and mental health, breastfeeding, nutrition, physical activity, reproductive planning, among others.

We mention as a limitation of this study the fact that it is a comparison of broad descriptive materials, which impairs the discussion of all subjects approached, as well as the possibility of bias since it compares uncertain data, liable to the understanding of the readers/authors. Moreover, another limitation is the investigation of existing recommendations, but not of their actual

implementation. On the other hand, the strength of this study is to identify, in an unprecedented way, the recommendations that would need to be reviewed for a more effective care in the puerperium.

Among the compared recommendations, 31.6% were considered convergent, 36.8% partially convergent and 31.6%, divergent. Those partially convergent with the divergent summed 68.4%, signaling the importance of adopting regular reviews of the Manuals and Protocols of PHC elaborated by the MS, observing that they are a referential for teaching, research and assistance in this level of care. By means of its publications, the MS launches the implementation of national health practices and policies, necessary for the improvement of prenatal and puerperal care, among others.

We intend, with this study, to contribute to a reflection of professional practices in the puerperium, as well as drawing awareness of the importance of updating the materials that guide this assistance.

### Authors' contribution

Santos EG: data analysis, writing and reviews of the manuscript. Rattner D: intellectual proposition of the article, study design, critical review. All authors approve the final version of the article and declare no conflicts of interest.

### References

1. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Atenção ao pré-natal de baixo risco. Cad Atenção Básica nº 32. Brasília (DF): Ministério da Saúde; 2012. [Internet]. [access in 2024 Jan 4]. Available from: [http://bvsms.saude.gov.br/bvs/publicacoes/cadernos\\_atencao\\_basica\\_32\\_prenatal.pdf](http://bvsms.saude.gov.br/bvs/publicacoes/cadernos_atencao_basica_32_prenatal.pdf)
2. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Portaria GM nº 2.436, de 21 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS). Brasília (DF): DOU de 22 de setembro de 2017. [Internet]. [access in 2023 Out 18]. Available from: [https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436\\_22\\_09\\_2017.html](https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436_22_09_2017.html)
3. Ministério da Saúde (BR). Portaria GM/MS nº 635, de 22 de maio de 2023. Institui, define e cria incentivo financeiro federal de implantação, custeio e desempenho para as modalidades de equipes Multiprofissionais na Atenção Primária à Saúde [Internet]. Brasília (DF): DOU 22 de maio de 2023. [access in 2024 Jan 27]. Available from: <https://www.in.gov.br/en/web/dou/-/portaria-gm/ms-n-635-de-22-de-maio-de-2023-484773799>
4. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde da criança: crescimento e desenvolvimento. Cad Atenção Básica nº 33 [Internet]. Brasília (DF): Ministério da Saúde; 2012. [access in 2024 Jan 4]. Available from: [https://www.gov.br/saude/pt-br/acao-a-informacao/acoes-e-programas/rami/testes-rapidos-de-hiv-e-sifilis-na-atencao-basica/diagnostico/caderno\\_33.pdf/view](https://www.gov.br/saude/pt-br/acao-a-informacao/acoes-e-programas/rami/testes-rapidos-de-hiv-e-sifilis-na-atencao-basica/diagnostico/caderno_33.pdf/view)
5. Ministério da Saúde (BR). Protocolos da Atenção Básica: Saúde das Mulheres / Instituto Sírio-Libanês de Ensino e Pesquisa. [Internet]. Brasília (DF): Ministério da Saúde; 2016. [access in 2024 Jan 4]. Available from: [https://bvsms.saude.gov.br/bvs/publicacoes/protocolos\\_atencao\\_basica\\_saude\\_mulheres.pdf](https://bvsms.saude.gov.br/bvs/publicacoes/protocolos_atencao_basica_saude_mulheres.pdf)
6. World Health Organization (WHO). WHO recommendations on maternal and newborn care for a positive postnatal experience. Geneva: WHO; 2022. 242 p. [Internet]. [access in 2024 Jan 4]. Available from: <https://www.who.int/publications/i/item/9789240045989>
7. Gil AC. Como Elaborar Projetos de Pesquisa. 7th ed. Barueri: Atlas; 2022.
8. World Health Organization (WHO). Recomendações da OMS sobre cuidados maternos e neonatais para uma experiência pós-natal positiva: sumário executivo. Geneva: WHO; 2022. 12 p. [Internet]. [access in 2024 Jan 4]. Available from: <https://www.who.int/pt/publications/i/item/9789240044074>
9. Biete A, Gonçalves VSS, Franceschini SCC, Nilson EAF, Pizato N. The prevalence of nutritional anaemia in brazilian pregnant women: a systematic review and meta-analysis. *Int J Environm Res Public Health*. 2023; 20: 1519.
10. Moura OCU, Nóbrega ACO, Vasconcelos IN, Freitas AC. Adesão à suplementação de ferro na gestação e no pós-parto em um centro de saúde do município de Pacatuba-CE. *RBONE* 2022; 16 (101): 374-81.
11. Dutra MRP, Cavalcanti HG, Ferreira MAF. Neonatal hearing screening programs: quality indicators and access to health services. *Rev Bras Saúde Mater Infant*. 2022; 22 (3): 593-9.
12. World Health Organization (WHO). Global tuberculosis report. Geneva: WHO; 2023. [access in 2023 Dec 15]. Available from: <https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2023>
13. World Health Organization (WHO). Organização Pan-Americana da Saúde (PAHO). Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Doenças transmissíveis e análise de situação saúde. Relatório

- Técnico do Termo Cooperação Nº 71 - Malária, Hanseníase e outras doenças em eliminação. [Internet]. Washington (DC): WHO; 2019. [access in 2023 Dec 9]. Available from: <https://www.paho.org/pt/documentos/relatorio-tecnico-do-termo-cooperacao-no-71-malaria-hansenias-e-outras-doencas-em-0>
14. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde e Ambiente. Departamento de Imunizações e Doenças Imunopreveníveis. Manual dos Centros de Referência para Imunobiológicos Especiais. 6ª ed. Brasília (DF): Ministério da Saúde; 2023. [Internet]. [access in 2023 Nov 26]. Available from: [http://bvsms.saude.gov.br/bvs/publicacoes/manual\\_centros\\_referencia\\_imunobiologicos\\_6ed.pdf](http://bvsms.saude.gov.br/bvs/publicacoes/manual_centros_referencia_imunobiologicos_6ed.pdf)
  15. World Health Organization (WHO). Polio Eradication Strategy 2022–2026: delivering on a promise. [Internet]. Geneva: WHO; 2021. [access in 2023 Nov 11]. Available from: <https://www.who.int/publications/i/item/9789240031937>
  16. Prezotto KH, Bortolato-Major C, Moreira RC, Oliveira RR, Melo EC, Silva FR, et al. Mortalidade neonatal precoce e tardia: causas evitáveis e tendências nas regiões brasileiras. *Acta Paul Enferm.* 2023; 36: eAPE02322.
  17. Soares AR, Guedes ATA, Cruz TMAV, Dias TKC, Collet N, Reichert APS. Tempo ideal para a realização da visita domiciliar ao recém-nascido: uma revisão integrativa. *Ciênc Saúde Colet.* 2020; 25 (8): 3311-3320.
  18. Linhares EF, Dias JAA, Santos MCQ, Boery RNSO, Santos NA, Marta FEF. Memória coletiva de cuidado ao coto umbilical: uma experiência educativa. *Rev Bras Enferm.* 2019; 72 (Suppl. 3): 360-4.
  19. Vasconcelos ML, Pessoa VLMP, Chaves EMC, Pitombeira MGV, Moreira TMM, Cruz MR, et al. Care for children under six months at domicile: primiparae mother's experience. *Esc Anna Nery.* 2019; 23 (3): e20180175.
  20. Silva CS, Carneiro MNF. Pais pela primeira vez: aquisição de competências parentais. *Acta Paul Enferm.* 2018; 31 (4): 366-73.
  21. Campos MG. Intervenções para prevenção e controle da deficiência de vitamina D em menores de cinco anos: revisão sistemática [dissertação]. [Internet]. Niterói (RJ): Instituto de Saúde Coletiva da Universidade Federal Fluminense; 2020. [access in 2023 Dec 16]. Available from: <https://app.uff.br/riuff/handle/1/22954>
  22. Saboia DM, Bezerra KC, Vasconcelos Neto JA, Bezerra LRPS, Oriá MOB, Vasconcelos CTM. Eficácia das intervenções realizadas no pós-parto para prevenir incontinência urinária: revisão sistemática. *Rev Bras Enferm.* 2018; 71 (Suppl. 3): 1460-8.
  23. Santos IS, Matijasevich A, Tavares BF, Barros AJD, Botelho IP, Lapolli C, et al. Validation of the Edinburgh Postnatal Depression Scale (EPDS) in a sample of mothers from the 2004 Pelotas Birth Cohort Study. *Cad Saúde Pública.* 2007; 23 (11): 2577-88.
  24. Teixeira MG, Carvalho CMS, Magalhães JM, Veras JMMF, Amorim FCM, Jacobina PKF. Detecção precoce da depressão pós-parto na Atenção Básica. *J Nurs Health.* 2021; 11 (2): e2111217569.
  25. Souza ER, Araújo D, Passos SG. Fatores de risco da depressão pós-parto: revisão integrativa. *Rev JRG.* 2020; 3 (7): 463-74.
  26. Ruschel LM, Pedrini DB, Cunha MLC. Hipotermia e banho do recém-nascido nas primeiras horas de vida. *Rev Gaúcha Enferm.* 2018; 39: e20170263.
  27. Silva MPC, Rezende LV, Oliveira ALR, Santos FHR, Ruiz MT, Contim D. Banho do recém-nascido a termo: revisão de escopo. São Paulo: *Rev Recien.* 2022; 12 (40): 257-65.
  28. Correia LL, Rocha HAL, Campos JS, Silva AC, Silveira DMI, Machado MMT, et al. Interaction between vitamin A supplementation and chronic malnutrition on child development. *Ciênc Saúde Colet.* 2019; 24 (8): 3037-46.
  29. Santos LMP, Martins MC, Almeida ATC, Diniz AS, Barreto ML. Pesquisa translacional em vitamina A: do ensaio randomizado à intervenção e à avaliação do impacto. *Saúde Debate.* 2019; 43 (spe. 2): 19-34.
  30. World Health Organization (WHO); United Nations Children's Fund (UNICEF); World Bank Group. Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential. [Internet]. Geneva: WHO; 2018. [access in 2023 Dec 16]. Available from: <https://iris.who.int/handle/10665/272603>

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