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Nutritional care during prenatal and postpartum periods: A report of experiences in a city on São Paulo's coast

A atenção nutricional ao pré-natal e puerpério: relato de experiência em um município do litoral Paulista

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ABSTRACT

The purpose of this study is to present a report of the experiences of the adoption of the Approach to Nutritional Care during Prenatal and Postpartum Periods, resulting from a partnership between the university and the municipal primary health care system of Santos, SP, Brazil. This approach was developed through joint work plans based on the need to incorporate nutritional care into the prenatal and postpartum care. All stages of design and implementation and the results of this strategy were documented in a field diary. This approach was adopted in two basic health units between 2010 and 2014. The stages of this process were planned in conjunction with health care teams and consisted of putting together interdisciplinary groups for nutrition education during the prenatal period. Interdisciplinary educational group meetings were held focusing on listening to the needs of pregnant women, the provision of prenatal nutritional care, and on the project to monitor the nutritional status of newborns through home visits up to the 15 days of postpartum. The interdisciplinary activities strengthened the bond between the users and the health care team members, contributing to the provision of effective care and promoting integrality. Home visiting contributed to encourage exclusive breastfeeding.

Keywords: Breast feeding. Food and nutrition education. Nutrition, public health. Prenatal care. Primary health care.

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RESUMO

O objetivo deste artigo é relatar a experiência de implantação de Estratégia de Atenção Nutricional ao Pré-natal e Puerpério, resultante de parceria entre universidade e serviço público municipal de atenção básica de Santos (SP). Para tanto, planejou-se conjuntamente o trabalho partindo da necessidade de incorporar a atenção nutricional ao pré-natal e puerpério. Construiu-se Diário de Campo no qual registraram-se a concepção, o processo de elaboração e os resultados desta Estratégia. Desenvolveu-se o trabalho em duas Unidades Básicas de Saúde, no período de 2010 a 2014. As etapas desse processo foram construídas conjuntamente com as equipes de saúde e consistiram na criação de grupo educativo interdisciplinar em nutrição no pré-natal. Desenvolveram-se reuniões educativas interdisciplinares, com foco na escuta às necessidades das gestantes, na implantação do acompanhamento nutricional Pré-natal e no projeto de vigilância nutricional dos recém-nascidos, em visitas domiciliares até o 15º dia pós-parto. As ações interdisciplinares estreitaram o vínculo entre usuárias e equipes, favorecendo a efetivação da linha do cuidado e fomentando a integralidade. O apoio domiciliar contribuiu para o incentivo ao aleitamento exclusivo.

Palavras-chave: Aleitamento materno. Educação alimentar e nutricional. Nutrição em saúde pública. Cuidado pré-natal. Atenção primária à saúde.

INTRODUCTION

Prenatal and postpartum care aims to give support to women through pregnancy, contributing to the birth of a healthy infant and to maternal and neonatal well-being. Therefore, a high-quality and humanized prenatal and postpartum care is recommended for a more comprehensive view of the health/disease process that considers the person as a whole and to establish a new basis for a cooperative relationship between the various subjects involved - health care professionals, users, and managers¹.

According to Ayres², providing health care implies taking into account the experience of the individuals and attentive listening to understand their life plans and the situation they are going through. Listening helps the individual to reflect and focus on a co-responsible care that fosters autonomy.

In Brazil, since the 1980s, there have been several problems affecting prenatal and postpartum care³. Despite the increase in prenatal care services and programs⁴, the quality of care provided has been affected, and only some of the pregnant women enrolled benefit from the minimum actions carried out in the program^{1,5-7}. This suggests inadequacy of the care provided by those services, not only in terms of the number of prenatal visits, but also in terms of the quality

of those visits; this situation is even worse for low-income women⁶.

The provision of nutritional care is an important part of prenatal care due the importance and influence of pre-pregnancy and pregnancy nutritional status on maternal and newborn health, especially fetal growth and birth weight⁸. According to recommendations of the Brazilian Ministry of Health, prenatal nutritional care should start at the early stages of pregnancy together with educational activities to be undertaken in groups or individually, enabling the exchange of information and knowledge between the women and the health care professionals and facilitating the understanding of the pregnancy process¹.

Among the strategies with empirical evidence of the effectiveness of breastfeeding promotion are prenatal groups, home visits, mothers' groups, and individual lactation consultations during the prenatal and postpartum periods focusing on health education^{9,10}.

In terms of nutritional care, the promotion of self-care and autonomy are central elements of *Educação Alimentar e Nutricional* (EAN, Food and Nutrition Education). Therefore, prenatal and postpartum care requires continuous and permanent EAN practices including problem-posing and active approaches enabling the dialogue focused on listening to the users needs^{11,12}.

Therefore, the objective of this study is to present a report of the experiences of the adoption of the Approach to Nutritional Care during Prenatal and Postpartum Periods focused on EAN as an element of comprehensive care.

METHODS

This study consists of a report of the experiences of the adoption of the Approach to Nutritional Care during Prenatal and Postpartum Periods between 2010 and 2014, resulting from a partnership between the university and the Municipal Secretariat of Health of *Santos*.

The city of *Santos* has 419,400 inhabitants and an area of 281km² with high population density in the insular area (1,492 inhabitants/km²)¹³. *Santos* is the largest port in Latin America, reason for the city original urban occupation¹⁴.

With regard to the public health system, low risk prenatal care is provided in 29 Basic Care Units (BCU) spread in four different regions that comprise the insular area of the city: *Morros* (Hillside area), *Zona Noroeste* (Northwest Zone), *Centro* (Downtown), and *Orla* (Shoreline). There are 9 BCU in the Hillside area, 9 in the Northwest Zone, 5 in the Downtown area, and 6 along the Shoreline.

The partnership between the *Universidade Federal de São Paulo campus Baixada Santista* (Federal University of *São Paulo, Santos Campus Unifesp*), and the Municipal Secretariat of Health in the Hillside area was established in 2009 involving education, research, and extension programs. Since then, Social Nutrition Internship programs have been carrying out interdisciplinary actions in conjunction with health care teams, constituting an innovative element of health care activities in the city¹⁵.

There are Social Nutrition Internship programs in 6 Family Health Units (FHU) in three of the four health regions of *Santos*: Hillside area, Northwest Zone, and Downtown area. The internships are taken up during the 7th and 8th

semesters and are organized in three terms that last three months each, with a total workload of 320 hours, with 30 hours per week. Professors are responsible for supervising the internship program during four hours per week; the remaining hours are supervised by preceptors, health care professionals, and graduate students enrolled in the Program in Social Nutrition Internship.

The Social Nutrition Internship Program activities were carried out and planned in conjunction with the health care teams of the units based on the identification of the health needs of each region.

The report was prepared according to the records that were kept in the field diary during the entire strategy development process. It was written by the interns and the dietitian preceptor and was used as an analysis tool, enabling interpretation and evaluation of the practices, i.e., it included a more comprehensive assessment rather than a simple description of the actions undertaken. A content analysis was carried out including the scanning and skimming reading of the records to understand the meanings of the experience of the adoption of this approach. The material gathered in each internship term was passed on to the next interns to ensure the actions would be continued. Moreover, the diary records supported the procedural evaluation of the internship by the professors supervising the internship program¹⁵.

In the present study, it was assumed that the actions would be based on the principles of food and nutrition education, which aims to promote autonomy and the voluntary adoption of healthy eating practices using strategies and problem-posing educational resources that would allow the participant pregnant women to reflect upon their dietary practices and find ways to improve their eating habits. Among these features, is the use of group dynamics, such as "*monte seu prato*" (make your own plate), a practical demonstration of the amount of sodium present in their daily diet, and ingredient

substitution tips to make the recipes brought by them healthier among others. In all of the actions, the interactions and meanings of their eating behavior were taken into account instead of normative and prescriptive actions^{11,16}.

This study was approved by the Research Ethics Committee of the *Universidade Federal de São Paulo* (Unifesp, Federal University of São Paulo), Protocol nº 32900.

RESULTS AND DISCUSSION

This strategy used was implemented in two basic health units in the Hillside area of *Santos* (SP), from 2010 to 2014, during the internship terms. The work process for the development of the Approach to Nutritional Care during Prenatal and Postpartum Periods consisted of two stages.

The first stage was the proposal of forming an interdisciplinary group for nutrition education that would evaluate and monitor the participant's nutritional status and their dietary practices during pregnancy. The group was also responsible for the implementation of actions that promoted food and nutrition education during pregnancy aiming to achieve better health outcomes for the mother-infant dyad and encourage Exclusive Breast Feeding (EBF) in the first six months.

Before forming the group, meetings were held between the university and the health care units over a three-month period in order to identify the needs to be addressed in the educational practices and to develop integrated work strategies. Challenges related to the participation of the pregnant women and health care teams in the program activities were also discussed. Examples of these challenges are time conflicts between prenatal appointments and group activities and the lack of team members' recognition of the importance of educational activities.

The following professionals participated in the planning process: nutrition interns, preceptor dietitian, unit manager, and health care team members (nurses, gynecologists, pediatricians,

community health agents, and nurse technicians). The action plan, an adequate physical space, the update of medical records system records, and the joint work between team members and the nutrition interns were discussed and defined. Moreover, a protocol (Annex 1) was developed containing socioeconomic status and past pregnancy and health history to characterize the population served and support the planning of educational activities.

Educational activities were carried out in weekly group meetings on the day of prenatal visits. Four group meetings were held monthly during the course of nine months of pregnancy, totaling an average of 36 meetings per year. Each group was composed of approximately 10 pregnant women who were asked to arrive an hour before their doctor's appointment to participate in the group meetings, which lasted 40-60 minutes. The groups also included the following professionals: dietitians, nurses and nursing assistants, Community Health Agents (CHA), social workers, and nutrition interns. All of these professionals and the students participated in the group meetings every week, except for the nurses and social workers whose frequency of participation varied.

Aiming at a closer relationship between the professionals and encouraging the participation of pregnant women in this educational activity, nutrition interns and nursing assistants carried out a weekly evaluation of the women in each group half an hour before their scheduled prenatal visit, which consisted of measurements of weight, height, and blood pressure, and questions about their health and socioeconomic status. Those data were analyzed and entered into their maternity record card. The Monitoring of Prenatal Nutritional Status procedure was adopted for the first time in those health care units, which strengthened the bonds and increased participation of the women in the group meetings.

A preliminary evaluation carried out during the first stage of implementation of this strategy¹⁷ revealed that a total of 48 pregnant women were

monitored through the educational groups; 35% of those women had started the prenatal care during the first trimester of pregnancy. As for their nutritional status, most of them were eutrophic (45%), 25% were overweight, and 66.6% carried the pregnancy to term.

The evaluation and the diagnosis of the nutritional status through anthropometric measurements are recommended for an effective nutritional monitoring of pregnant women due to its importance for the prevention of perinatal morbidity and mortality, prognosis of fetal development, and promotion of women's health¹⁸. Health problems during pregnancy related to pre-gestational weight gain have been reported in the literature, especially hypertensive disorders of pregnancy and low birth weight¹⁹⁻²⁰. These findings demonstrate the importance of monitoring weight gain during the prenatal period and the identification of pregnant women at nutritional risk.

Studies addressing the quality of nutritional care during the prenatal period reveal that the weight and blood pressure measurements are routine procedures during prenatal visits^{21,22}. However, other studies have reported the lack of height measurements, provision of educational activities, diet guidance, and evaluation of Body Mass Index (BMI)/gestational age^{7,21,23-25}.

In a recent study, Niquini *et al.*²⁶ evaluated the nutritional care in the prenatal period in 7 FHUs in *Rio de Janeiro*, Brazil. In terms of the quality of the nutritional care provided, the authors found that only 45.0% of the pregnant women's maternity record card had updated information¹, including the BMI/gestational age curve, and 90.7% of the maternity cards did not have any BMI/gestational age curve updates. Pregestational weight and height records were present in 65.9% and 57.7% of the maternity cards, respectively. The authors also pointed out that less than 40.0% of the pregnant women received specific nutritional counseling on diet, weight gain, and use of supplementation during pregnancy²⁶.

The absence of information on height was also reported in other studies^{21,23,24}, suggesting the disregard of the nutritional monitoring of pregnant women hindering the evaluation of the initial nutritional status, the monitoring of weight gain during pregnancy, and the updates on the BMI/gestational age curve. It is important to mention that those studies did not consider the measurement of height as part of the essential procedures of nutritional care during the prenatal period.

In contrast, the actions undertaken with the implementation of the strategy discussed in the present study contributed to the effective provision of the nutritional care during the prenatal period. This could be observed by the adoption of anthropometric evaluation as an essential procedure, including weight, height, and pregestational weight measurements, enabling nutritional monitoring, maternity record card updates, and the identification of risks. These procedures were not part of the routine prenatal care in the health care unit investigated before the implementation of this strategy.

Like the investigation carried out by the authors of the present study, Siqueira²⁷ investigated the prenatal care provided in another BCU in the city of *Santos* and found that of the 366 medical records evaluated only one had an updated BMI/gestational age curve, which was actually only partially updated. The author believes that this finding is due to the lack of nutritional status assessment and the health professionals' disregard for it, suggesting that they were not aware of the clinical value of this information.

In another study by the authors of the present study, carried out during the implementation of the strategy in question²⁸, maternal and infant health risks and poor monitoring of prenatal and postpartum periods and infant's health were identified, reinforcing the need to improve the care provided to this population, according to guidelines issued by the "*Política Nacional de Alimentação e Nutrição*"²⁹.

The educational actions carried out as part of the strategy investigated in this study were focused on listening, the establishment of trust based relationships, and the acknowledgment of the pregnant women needs. Therefore, workshops and rounds of conversation were held in a private room, where the participants could share their experiences, strengthening the bonds between pregnant women and the health care teams. Based on the field diary records, it was observed that these women felt comfortable sharing their experiences and feelings with each other. Primiparous women talked to multiparous women expressing their doubts and fears related to the arrival of the baby, recognizing their knowledge and experiences of previous pregnancies. There were moments of emotional ventilation and confessions that strengthened the bonds between the participants.

The activities were designed according to the demand observed in the initial diagnosis. Some of the topics addressed were: healthy eating, weight gain, sodium intake, hydration, supplements, baby care, rights, and breastfeeding, following the recommendations of the *"Manual Técnico de Pré-natal e Puerpério do Ministério da Saúde"* (Prenatal and Postpartum Technical Manual by the Ministry of Health)¹.

According to Freire³⁰, "...to teach is not to transfer knowledge but to create the possibilities for the production or construction of knowledge" The educational group activities were focused on encouraging talking and experience exchange, as well as on fostering a trust based relationship between the group members. The professionals and interns involved acted as facilitators, avoiding the use of the lecture-style during the meetings, which is unproductive and that overshadows the underlying issues that may be more relevant to the participants than a pre-established script.

Other actions resulting from forming the interdisciplinary group for nutrition education were: a bulletin board was collectively (health care teams/women) made with proper identification of the participant women and pictures of their

babies, and the newborn health surveillance project was developed.

The second stage of the development of the Approach to Nutritional Care during Prenatal and Postpartum Periods was integrated with the prenatal groups. In other words, the bonding established in the educational groups led to the development of the newborn health surveillance project, which emerged to enable continuity of care and consisted of Home Visits (HV) during 15 days of postpartum. This project was focused on encouraging Exclusive Breastfeeding (EBF) for up to six months and on counseling techniques, according to the *"Dez Passos para o Sucesso do Aleitamento Materno"* ("Ten Steps to Successful breastfeeding")³¹. Therefore, a protocol (Annex 2) containing sociodemographic data and information about birth, birth weight, household hygiene, breastfeeding techniques, mother's health and diet, and identification of potential risks to the health of newborns was used. In conjunction with the health care team, all births occurred in that region were mapped for the planning of home visits to all participants of the prenatal care program.

During the home visits, the nursing mothers felt comfortable talking about breastfeeding difficulties, allowing observation of the practice. Thus, it was possible to identify problems related to the care of the newborns, such as challenges associated with breastfeeding techniques or early introduction of complementary foods, and to identify the most common difficulties encountered by the mothers.

The interns, the dietitian preceptor, and the community health agent were present in every home visit. The visits included counseling on breast hygiene, proper breastfeeding latch, complete emptying of the breast, importance of exclusive breastfeeding for six months, and instructions to avoid the use of pacifiers, bottles, and bottle nipples. The mothers were also encouraged to have a postpartum check-up in the health care unit. When problems related to exclusive breastfeeding and its techniques were identified, another home visit was scheduled and

these cases were then discussed with the health care team aiming at a more systematic and integrated monitoring.

Preliminary results¹⁷ showed that 42 out of the 48 pregnant women in the groups received home visits until the 15th day of child birth. Their average age was 27 years (standard deviation 7.7); the majority (83.3%) of the women were exclusively breastfeeding their babies, and 16.7% were following the predominant breastfeeding pattern. However, 40.5% of these women reported not having received any counseling on breastfeeding after delivery. Breastfeeding difficulties were reported by 21.4% of the mothers, especially problems related to nipple soreness or trauma, and during breastfeeding observation, 26.2% showed inadequate breastfeeding techniques, especially not emptying the breasts effectively during breastfeeding. These results indicated ineffective actions to encourage breastfeeding, mainly during the first days of the baby's life in maternity wards, reinforcing the importance of EAN actions that address breastfeeding based on counseling during the prenatal and postpartum periods.

In terms of comprehensive care, home visits are considered an important health protection measure, especially if carried out frequently, seeking to strengthen the bond between pregnant women/nursing mothers and the health care unit, with comprehensive approach including the woman and her family in their social context^{1,32}. For an effective breastfeeding support, the first home visit should occur within the 14 days of postpartum because this is a critical period for the adoption of this practice due to common breastfeeding challenges. On the other hand, this is a period that involves the need to absorb a great deal of new information, and therefore it is a window of opportunity to encourage breastfeeding and to establish a close relationship between the mother and the health care professionals³³.

In a study based on interviews with pregnant women and health care professionals, Zampieri & Erdmann³⁴, reported that educational practices and home visits are considered humanized actions by pregnant women.

According to the women interviewed, they increase knowledge, support decisions, prepare for childbirth, and contribute to claim their rights for care. Analyzing these issues in terms of comprehensive care, nutritional care should not be based only on technical and scientific knowledge. Dietary counseling can be defined as a kind of dialogic support, aimed at the individuals' autonomy in decision-making, considering their organic, emotional, and sociocultural characteristics³⁵.

Educação Alimentar e Nutricional (EAN, Food and Nutrition Education) has been the subject of much debate, and some actions carried out in the country have been recognized as ineffective. Analyzing recent studies on educational programs, Santos *et al.*²⁴ observed the predominance of lectures and courses as intervention model programs. Thus, in the approach discussed in this study, the EAN practices were developed aiming at the women's autonomy to adopt healthy eating habits, considering their living conditions and their cultural background. Based on these goals, the group dynamics and rounds of conversation were focused on experience exchange between the participant women during pregnancy and breastfeeding. For example, the 'make your own plate' dynamics stimulated reflections about their own eating habits.

According to the literature on the main prenatal care characteristics and those observed in the health care services of Santos, it can be said that the routine prenatal visits in primary health care are focused on procedures only, without offering opportunities for knowledge and experience sharing²⁸. Besides good quality prenatal care, humanized care is the first step towards a healthy birth and a healthy and safe pregnancy³⁴. Accordingly, it is worth highlighting the important role of nutritional education as a way to promote individuals' autonomy and comprehensive care²⁸.

Despite the importance of the report of the experiences of the adoption of the Approach to Nutritional Care during Prenatal and Postpartum Periods, in order to adequately understand the theory and level of the adoption of this

approach³⁶, it is necessary to evaluate the results of this intervention. Thus, further studies are suggested to investigate the impact of these actions on the promotion of maternal and infant health and to identify problems and propose solutions for the improvement of food and nutrition policies in primary health care.

Although this experience proved to be successful, it is important to point out its limitations and challenges, such as the difficulty of some professionals in recognizing the role of nutritional care as part of routine prenatal care, which has long been limited to medical appointments only. As previously mentioned, the planning meetings were very important to raise awareness among the health care team, but the participation of some professionals was irregular affecting communications and leading to, in some occasions, differences in practices between dietitians and doctors. Another limiting factor is that the frequency of the group meetings became irregular during the university vacation periods, indicating low level of involvement of the health care team in this process.

To combat these limitations, we recommend the inclusion of training workshops with the health care professionals during the process planning to enable sharing knowledge and Food and Nutrition Education actions and the use of theoretical frameworks to provide guidance to those involved.

On the other hand, from the interns' perception, this experience increased their level of commitment to the services provided and to pregnant and postpartum (puerpera) women. Moreover, according to them, it also promoted the teaching-learning process. The health care professionals involved believe that the involvement of the university, including professors, students, and the internship preceptor, contributed to improve the nutritional care offered in these health care units and to increase knowledge about food and nutrition. These findings demonstrate the importance of this experience, reaffirming the role of the partnership between university and health care service.

CONCLUSION

The partnership between the university and the health care system promoted closer attention to the need for monitoring during the prenatal period, and the interdisciplinary actions strengthened the bonds between pregnant women/mothers and health care teams, paving the way for effective care promoting integrality. The use of the field diary proved to be important to systematize the records and for activity evaluations. Home care support during the postpartum period contributed to encourage exclusive breastfeeding. Further studies are needed to assess the impact of the actions of the Approach to Nutritional Care during Prenatal and Postpartum Periods and to investigate the implementation of this project in other primary health care units, improving the quality of health care provided in *Santos*.

CONTRIBUTORS

ASC LAPORTE-PINFILDI contributed to the project conception and design, and data analysis and the writing of the manuscript. MAT MEDEIROS contributed to the project conception and design, and data analysis and the final review of the manuscript.

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Annex 1
SOCIAL NUTRITION INTERNSHIP PROGRAM - HILLSIDE AREA

Date: ____ / ____ / ____

Medical Record: _____

User's Identification

Name: _____ // Birth date: ____ / ____ / ____ // Age: ____ years

Marital Status: _____ Receive financial assistance from companion/spouse or family members? : _____

Pregnancies: ____ Deliveries: ____ Type of delivery: Vaginal deliveries: ____ Abortions/miscarriages: ____ Cesarean deliveries: ____ .

Date of last menstrual period (LMP): _____ Estimated date of delivery (EDD): _____

Gestational age: _____

Reason for the appointment/Patient profile: _____

Lifestyle

- Tabagism: () Yes () No Number of cigarettes/day: ____ // Alcohol consumption: () Yes () No // Frequency: _____ Quantity: _____
- Physical activity () Yes () No // Type: _____ Duration: _____ Freq./week.: _____
- Hours of sleep: _____ // Frequent partygoer: _____
- Place of meals: _____ // Eat alone () Eat in the company of others () // Time of the day when feel most hungry: _____
- Who prepares the meals? _____ // Who shops for food? _____
- Food preferences: _____
- Food aversions: _____
- Bowel habits: _____ Urinary habits: _____
- Water intake: _____

Socioeconomic Data

- Educational Level: _____ // Student: () Yes () No
- Work outside the home? () Yes () No Formal work? () Yes () No // Occupation: _____
- When will return to work after giving birth: _____ months. Who will take care of the baby? _____
- Education level of household head: _____ years. Occupation of household head: ____ . Formal work? () Yes () No
- Own a house () Rent a house () // Basic sanitation: ____ // Number of rooms: ____ Garbage collection: ____ times/week.
- Number of persons in the household: ____ adults ____ children // Relationship to you: _____
- Family relationships (psychosocial aspects and behavior dynamics: calm persons; tense persons, communication pattern, difficulties)

Family Health history (diseases):

- Hypertension: Yes () No () Who? _____
- Dyslipidemia: Yes () No () Who? _____
- Diabetes: Yes () No () Who? _____
- Obesity: Yes () No () Who? _____
- Cancer: Yes () No () Who? _____
- Heart diseases: Yes () No () Who? _____

Personal health record: _____

- **Presence of:** () nausea () vomiting () heartburn () others
- **Treatment with the use of medications/supplements** _____
- **Laboratory tests:** _____

Access to Family Food and Nutrition Programs:

1. Beneficiary of the *Programa Bolsa Família* (Family Allowance Program)? () Yes Number of beneficiaries: _____ children
 _____ adults () No () do not know
2. Beneficiary of the *Programa Viverite* (Milk Program) () Yes Number of beneficiaries: _____ children
 _____ adults () no () do not know
3. Beneficiary of other types of cash transfer or assistance programs? () Yes () *vale refeição* (meal ticket) () *cesta básica* (food aid) () *Bom Prato (1 real)* (Government funded meals served at a specific restaurant at R\$1,00) () No () do not know

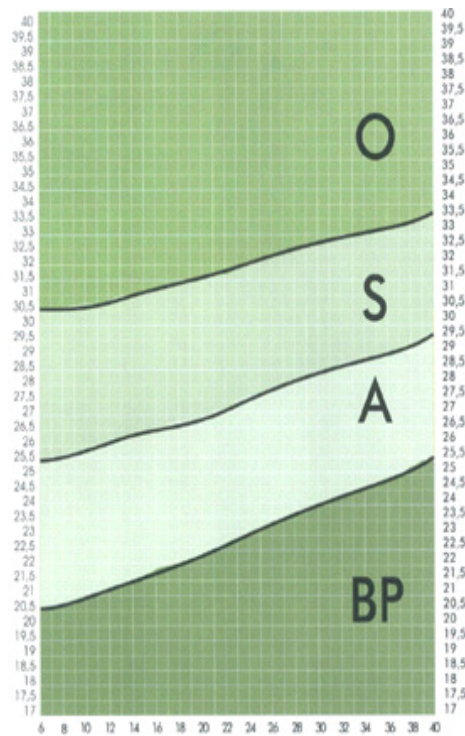
Anthropometric Data

Pre-gestational weight: _____ Kg Height: _____ cm Pre-gestational BMI: _____ Kg/m²

Initial Nutritional Status: _____ (IOM,1990)

Pregnancy weight gain recommendation: from _____ to _____ Kg

Atalah Classification criteria:



Nutritional Diagnostic Hypothesis: _____

Daily Eating Habit (Time and quantities)

Frequency of Consumption (daily, weekly and/or monthly):

Red meat	Bean	Olive oil	Tea
White meat	Vegetable	Sauce	Coffee
Pork meat	Leaf veg.	Ind.condiments	Sweetener
Fish	Fruit	Mayonnaise	Home made desserts
Hard-boil./fri. Eggs Coz./Frito	Pasta/pastries	Encased meats	Indust. desserts and
Whole/skim milk	Margarine	Canned food	Sweets/candies
Cheese	Butter	Fruit juice	Cookies/crackers
Yogurt	Lard	Soft drinks	
Rice	Fried foods	Alcoh. Beverage	

Monthly Consumption (verify whether oil is reused):

Food	Consumption	Per capita (g)	Ideal Consumption per capita
Oil			30mL
Salt			4 – 6g
Sugar			20 – 30g

TEE: _____ // TEV: _____]

Evaluation (psychosocial and dietetic):

Nutritional Plan:

Scheduled return appointment ____ / ____ / ____

Annex 2
SOCIAL NUTRITION INTERNSHIP PROGRAM- HILLSIDE AREA

Date: ____ / ____ / ____ Family Data: _____

I - Puerpera Identification

Name: _____ Age: _____ years. _____
 Address: _____
 Father's name: _____ Complement: _____ Phone: _____
 Pregnancies: _____ Deliveries: _____ Type of delivery: Vaginal deliveries: _____ Abortions/miscarriages: _____
 _____ Cesarean deliveries: _____ .

II - Socioeconomic Data

Mother's education level: _____ years. Student: () Yes () No
 Mother works outside the home? () Yes () No. Formal Work? () Yes () No
 When will return to work after giving birth: _____ months. Who will take care of the baby? _____
 Father's education level: _____ years. Student: () Yes () No
 Occupation of household head: _____ . Formal Work? () Yes () No
 Number of persons in the household: _____ How many work? _____
 Own a house: () Yes () No. Basic sanitation : () Yes () No. Garbage collection _____ times/week.

III - Household Hygiene (interviewer observations):

Clean: () Yes () no
 Clean backyard: () Yes () no
 Clean kitchen: () Yes () no
 Presence of flies and other insects: () Yes () no
 Proper ventilation: () Yes () no
 Natural light: () Yes () no
 Moisture in walls: () Yes () no
 Finished floor: () Yes () no
 Animals inside the house: () Yes () no
 Type: _____

IV - Newborn Data (check vaccination record card):

Name: _____ Birth date: ____ / ____ / ____ .
 Birth weight: _____ g. Length: _____ cm. Head circumference: _____ cm.
 Chest circumference: _____ cm. Apgar score at the 1st min.: _____ at the 5th min.: _____
 Delivery: () Vaginal () Cesarean () Forceps
 Place of delivery: _____
 Fetal Age:
 () < 22 weeks () 22 to 27 weeks () 28 to 31 weeks () 32 to 36 weeks
 () 37 to 41 weeks () 42 weeks and over () no answer.
 Pregnancy Complications: () Diabetes () Hypertension () Other: _____ Weight gain during pregnancy (ask about pregestational data: weight and length): _____
 Received prenatal care: () yes () no Place: _____ number of prenatal visits: _____
 Difficulties encountered by the mother: _____
 Who helps taking care of the baby: _____
 Good personal hygiene: () yes () no. If not, describe the problem: _____
 Give baby daily baths: () yes () no Who bathes the baby: _____
 Umbilical cord stump: _____ Baby is dressed adequately according to the weather: () yes () no

V - Breastfeeding data:

Breastfeeding patterns: Exclusive breastfeeding () Predominant breastfeeding () Complementary feeding ()
 Baby formula or others: () Yes () No
 Type: _____ Started at: _____ days
 Reason: _____
 Dilute baby's formula: () Yes () No
 Proportions of powdered formula to water: _____
 Introduced:
 Plain water: () Yes () No
 Sugar water: () Yes () No
 Honey: () Yes () No Tea: () Yes () No Type: _____
 Reason: _____
 Small size bottle/regular size bottle: () Yes () No. Pacifier: () Yes () No. When: _____
 Received instructions on breastfeeding in the place of birth? () Yes () No
 Instructions given: _____

Breastfeeding Techniques (interviewer observations):

Proper latch-on involving the areola: () Yes () No. Empty the breasts: () Yes () No
 Correct breastfeeding position: () Yes () No. Interval between feedings: _____
 Nipple trauma: () Yes () No. Use of ointment: () Yes () No
 Mother diet: _____
 Mother water intake: _____

VI - Health Care:

The infant will receive care at: () BCU () FHU () Health plan assistance () Other
 Vaccines: BCG () Yes () No. Hepatitis () Yes () No.

VII - Problems identified and instructions given to the mothers:

 Postpartum check-up at the BCU/FHU (verify): _____; Date: ____ / ____ / ____
 Home visit support team: (identify all)

