

NUTRITIONAL GUIDANCE DURING PRENATAL CARE IN PUBLIC HEALTH SERVICES IN RIBEIRÃO PRETO: DISCOURSE AND CARE PRACTICE¹

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This study aimed to verify if pregnant women attended in prenatal care services at Basic Health Units in Ribeirão Preto-SP, Brazil, received nutritional guidance and if this guidance was pertinent to their nutritional status. Ninety-one pregnant women participated. The pregnant women were classified according to their nutritional condition, using a weight, height and pregnancy stage table established by the Brazilian Health Ministry's technical prenatal care manual. We found pregnant women with weight under (13.19%) and exceeding normal levels (37.36%). Independently of their nutritional condition, most of them (60.43%) declared they did not receive nutrition guidance. The mean number of prenatal visits did not influence the nutritional status. The results reveal deficiencies in the contents and quality of nutritional care. This suggests the need for care changes so as to turn discourse into practice.

DESCRIPTORS: pregnancy; prenatal care; nutritional status; nutrition education; nursing

ORIENTACIÓN NUTRICIONAL EN EL PRENATAL EN SERVICIO PÚBLICO DE SALUD DE LA CIUDAD DE RIBEIRÃO PRETO: EL DISCURSO Y LA PRÁCTICA ASISTENCIAL

La finalidad del presente estudio fue verificar las orientaciones nutricionales dadas a mujeres gestantes que recibían atención en el prenatal de las Unidades Básicas de Salud de la ciudad de Ribeirão Preto-SP, y si las orientaciones eran pertinentes al estado nutricional. Participaron de la investigación 91 gestantes. Clasificamos a las gestantes de acuerdo con el estado nutricional, usando la tabla de peso/altura según la edad gestacional sugerida por el manual técnico de asistencia prenatal del Ministerio de la Salud de Brasil. Encontramos gestantes con peso inferior (13,19%) y superior al normal (37,36%). Independiente del estado nutricional, la mayoría de las gestantes (60,43%) relató no haber recibido orientación sobre nutrición. El número medio de consultas no influyó el estado nutricional. Los resultados indican deficiencias en el contenido y en la calidad de la atención nutricional, sugiriendo la necesidad de adecuación de la atención, transformando el discurso en una práctica real.

DESCRIPTORES: embarazo; atención prenatal; estado nutricional; educación nutricional; enfermería

ORIENTAÇÃO NUTRICIONAL NO PRÉ-NATAL EM SERVIÇOS PÚBLICOS DE SAÚDE NO MUNICÍPIO DE RIBEIRÃO PRETO: O DISCURSO E A PRÁTICA ASSISTENCIAL

O objetivo deste estudo foi verificar as orientações que as gestantes atendidas no pré-natal das Unidades Básicas de Saúde do Município de Ribeirão Preto-SP, Brasil recebiam sobre nutrição, e se estas orientações eram pertinentes ao seu estado nutricional. Participaram da pesquisa 91 gestantes. Classificamos as gestantes de acordo com o estado nutricional usando a tabela de peso/altura segundo a idade gestacional preconizada pelo manual técnico de assistência pré-natal do Ministério da Saúde do Brasil. Foram encontradas gestantes tanto com peso inferior (13,19%) como superior ao normal (37,36%). Independentemente do estado nutricional a maioria das gestantes (60,43%) relatou não ter recebido orientação sobre nutrição. O número médio de consultas não influenciou no estado nutricional. A maioria das gestantes iniciou o pré-natal em momento adequado para realizar intervenções nutricionais. Os resultados apontam para deficiências no conteúdo e na qualidade do cuidado nutricional sugerindo a necessidade de adequação da assistência transformando o discurso em uma prática real.

DESCRIPTORES: gravidez; cuidado pré-natal; estado nutricional; educação nutricional; enfermagem

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INTRODUCTION

Adequate nutrition is fundamental in any stage of the lifecycle to promote, prevent, maintain and recover health⁽¹⁾. During pregnancy, nutritional needs change to permit the development of the fetus, as well as to supply women's nutritional needs.

Among pregnant women with nutritional alterations, the following appear more frequently: infections, parasitoses, hemopathies (anemia), hypertensive syndromes, placental insufficiency, obesity; greater chances of hemorrhage during delivery and puerperal infection; as well as the possibility of premature infants, with intrauterine growth restriction (IUGR), presenting greater possibilities of neonatal infections, respiratory diseases and increasing perinatal death statistics⁽²⁾.

Assessing body weight and surveying eating habits during prenatal care are important strategies to identify pregnant women's nutritional conditions and permit individualized nutritional guidance with a view to optimizing the mothers' nutritional status, improving maternal conditions for delivery and adapting the infant's weight⁽³⁾.

The Brazilian Health Ministry (MS) determines the understanding of the multiple meanings of pregnancy for these women and of the context they are inserted in. This makes prenatal care a privileged moment to discuss and clarify each woman's unique questions⁽³⁾. Thus, nutritional guidance should be offered in accordance with each patient's economic, social and cultural possibilities⁽⁴⁾, which implies the need to adequately prepare health professions about this subject⁽¹⁾.

Health professionals in this care context can assume an important role in guidance, in encouraging pregnant women about healthy living and nutritional aspects, in identifying pregnant women at nutritional risk by assessing their nutritional condition, as well as in referring pregnant women to social assistance programs when situations of need are diagnosed.

During care delivery to pregnant women taking part in the *Nascer* ("Birth") Project maintained by the Ribeirão Preto Municipal Health Secretary (SMSRP), we identified a considerable number of women who mentioned they had not received any nutritional guidance until that stage in their pregnancy; as well as the absence of nutritional status records on the prenatal cards.

The mother's nutritional condition is determinant for fetus growth and the infant's (RN)

weight. There is concrete evidence that weight gain during pregnancy serves as a prognosis for the RN's weight at birth, which can be affected by the mother's nutritional status and size before pregnancy.

This is important from a public health perspective, since birth weight is one of the parameters that is most associated with RN survival, growth and mental development.

We departed from the premise that the pregnant women who were receiving prenatal care in the Ribeirão Preto public health services, were neither being assessed nor adequately advised about nutritional aspects. Our initiative to realize this study was motivated by the need to intensify nutritional actions and care with a view to high-quality prenatal care.

OBJECTIVE

This study aimed to verify if pregnant women attended in prenatal care services at Basic Health Units in Ribeirão Preto-SP, Brazil, received nutritional guidance and if this guidance was pertinent to their nutritional status.

METHODOLOGY

This is a descriptive, exploratory and cross-sectional study. Data were collected at a philanthropic maternity hospital located in Ribeirão Preto, a city in the interior of São Paulo State, Brazil, which was called the Airport Complex Maternity - MATER. This institution exclusively attends women in the Single Health System (SUS). It is accredited in the context of the SMSRP's *Nascer* Project and constitutes a referral center for 13 Basic Health Units. MATER offers prenatal care to low-risk pregnancies from the 36th week onwards, and provides integration between the prenatal, delivery and puerperal periods.

Participants were 91 pregnant women referred by Basic Health Units in the city, who attended their first visit at MATER's prenatal service. The choice of women who registered at this service was motivated by our intent to identify the guidance they had received at the health service of origin. Thus, we excluded pregnant women who had already received prenatal care at MATER, as this institution has made efforts in this sense by introducing protocols, besides granting basic food packages to the neediest pregnant women.

Data were collected in January and February 2003, using a structured form, and obtained directly from the pregnant women (age, obstetric history, previously received nutritional orientation, use of food supplements and life habits) and from their pregnancy card (last menstrual period, gestational age, laboratory test results (hemoglobin and hematocrit), attendance to prenatal care visits, size and gestational age in weeks during the first visit carried out at the service of origin, weight during the first prenatal visit at MATER.

After data collection, we analyzed the pregnant women's nutritional condition, i.e. the weight/height index, following the weight-height table according to gestational age established by the MS when the pregnant woman does not know her weight before pregnancy, available from the Technical Prenatal Care Manual and from the Prenatal and Low-Birth Delivery Care Manual by the Latin American Perinatology and Human Development Center (CLAP)⁽⁵⁻⁶⁾. The nutritional status was assessed after surveying the pregnant woman's size and weight during the first prenatal visit at the maternity hospital, consulting her pregnancy card, and after determining the gestational age (from the 13th week of pregnancy onwards), observing weight (10th and 90th percentiles) on the intersection of maternal height and gestational week⁽⁵⁻⁶⁾.

The pregnant women were divided in three groups, depending on their weight/height index, following the weight-height table according to gestational age, as follows:

Group 1: pregnant women whose weight was below normal levels for their gestational age (below 10th percentile);

Group 2: pregnant women whose weight was within standard levels for their gestational age (within the 10th to 90th percentile);

Group 3: pregnant women whose weight exceeded normal levels for their gestational age (above 90th percentile).

Data related to nutritional status assessment and the pregnant women's characteristics were analyzed using frequencies. We also analyzed means and standard deviations for the number of prenatal visits which these women attended.

Ethical aspects of research were respected, in accordance with Resolution 196/96. All participants received the free and informed consent term before data collection, and anonymity was guaranteed. The study was approved by the Research Ethics Committee at the University of São Paulo at Ribeirão Preto College of Nursing.

RESULTS

The results are related to the assessment of the women's nutritional condition, to their characterization according to age and obstetric history and, finally, to the nutritional guidance they received in prenatal care.

Nutritional Condition of the Pregnant Women

The study participants were divided in the groups described above (Groups 1, 2 and 3), depending on their weight/height index according to the table of weight-height for gestational age (Table 1).

Table 1 - Distribution of pregnant women according to their weight and height for gestational age, Public Health Services, Ribeirão Preto, 2002

Pregnant woman groups	Nº	%
1*	12	13,19
2**	43	47,25
3***	34	37,36
Total	89	97,80

Two women were not included because their gestational age was questioned.

* Weight below normal standards for gestational age

** Standard weight for gestational age

*** Weight above normal standards for gestational age

Characterization of pregnant women according to age and obstetric history

The sample included more adult (74.72%) than adolescent pregnant women (23.07%). In the group of adolescents, 14.28% belonged to *Group 1*, 38.09% to *Group 2* and 47.61% to *Group 3*. Among adult participants, 13.23% belonged to *Group 1*, 57.47% to *Group 2* and 35.29% to *Group 3*.

We found more multi- (65.93%) than primigravidas (31.81%). Among the primigravidas, 10.34% were in *Group 1*, 55.17% in *Group 2* and 34.48% in *Group 3*. Fifteen percent of the multigravidas belonged to *Group 1*, 45% to *Group 2* and 40% to *Group 3*.

In the total group of participants, 41.75% started prenatal care in the first, 50.54% in the second and 5.49% in the third trimester. Their nutritional condition varied according to the trimester when they started prenatal visits. (Table 2)

Table 2 - Nutritional Condition and Start of Prenatal Care, Public Health Services, Ribeirão Preto, 2002

Groups	First trimester	Second trimester	Third trimester
1*	10,52%	17,39%	0%
2**	47,36%	47,82%	60,0%
3***	42,10%	34,78%	40,0%

* Weight below normal standards for gestational age

** Standard weight for gestational age

*** Weight above normal standards for gestational age

Pregnant women in all groups presented a similar mean number of prenatal visits: 4.9 in *Group 1*, 5.3 in *Group 2* and 5.0 in *Group 3*, with standard deviations of 1.31 in *Group 1*, 1.83 in *Group 2* and 1.96 in *Group 3*.

Nutritional Guidance

We identified that 37.36% of the pregnant women we interviewed had received nutritional guidance, whereas 60.43% had not. When looking at the groups, 75% of women in *Group 1* had not received any guidance, against 58.13% in *Group 2* and 61.78% in *Group 3*.

Pregnant women in *Group 1* received the following advice: "Do not eat fried food or light products*", "Eat vegetables" and "Consume a healthy diet".

Tables 3 and 4 show the advice received in the other groups.

Table 3 - Nutritional guidance received by pregnant women in *Group 2*, Public Health Services, Ribeirão Preto, 2002

Consume foods rich in iron
Eat fruits and do not eat snacks or fried food
Reduce food and salt intake
Eat fruits, do not eat pasta, divide meals and reduce foods
Eat healthy and do not eat what is not healthy
Eat fruit, vegetables, rice and beans
Eat fruit, vegetables and meat
Eat at regular intervals, eat fruit and drink natural juice, do not drink soft drinks
Eat fibers
Eat well
Eat vegetables and fruit
Consume foods rich in proteins and vitamins
Eat vegetables, red meat and do not eat sweets
Eat vegetables, eggs and milk
Eat vegetables, milk, vegetables, fruit and do not eat canned products
Consume foods rich in iron
Do not eat fried foods
Eat vegetables, fruit and do not eat fried foods or skip meals

* Light Foods: are food products with a minimum reduction of 25% in calories or another component (fat, carbohydrate, protein, etc.), in comparison with the normal version⁽⁷⁾

Table 4 - Nutritional guidance received by pregnant women in *Group 3*, Public Health Services, Ribeirão Preto, 2002

Consume less pasta and soft drinks
Eat fruit, milk, vegetables and do not eat sweets
Eat fruit, milk, vegetables, fibers and do not consume fatty foods
Consume a healthy diet
Eat vegetables and fruit and do not consume sweets and soft drinks, reduce salt intake
Eat vegetables and fruit
Eat vegetables, avoid fried foods, soft drinks and decrease salt intake
Decrease food due to excessive weight
Drink a lot
Do not eat too much and avoid fried foods
Do not consume pasta and soft drinks
Eat vegetables, fruit and mentions having received a folder about nutrition during pregnancy
Eat vegetables and fruit

We found that 8.77% of the study participants were anemic, i.e. blood hemoglobin under 11mg/dl and hematocrit levels under 33%. All anemic pregnant women were receiving iron sulphate when they were referred to prenatal care at the maternity hospital. No blood hemoglobin and hematocrit results were mentioned on 7.01% of the pregnancy cards. Anemia levels corresponded to 11.11% in *Group 1*, 7.69% in *Group 2* and 10% in *Group 3*.

As to supplements, 54.38% of the interviewees received iron sulphate, while 42.10% of them neither received this nor any other supplement. Supplements were more frequent in *Group 1* (99.10%), against 53.48% in *Group 2* and 35.29% in *Group 3*.

In the study group, 83.51% denied unhealthy life habits, 12.08% indicated smoking and 2.19% alcoholism. We did not identify any illegal drug consumption. In *Group 1*, 41.66% mentioned smoking, 58.33% denied unhealthy habits and we did not find any cases of alcoholism. In *Group 2*, 88.37% of the pregnant women denied unhealthy habits, 11.62% were smokers and no alcoholics were found. In *Group 3*, 91.17% denied unhealthy habits, 2.94% mentioned smoking and 5.88% alcoholism.

DISCUSSION

The urge to verify if pregnant women attended in public health services receive nutritional guidance during prenatal care and if this guidance is pertinent

to their nutritional status involves the need to weigh nutritional care actions and activities, with a view to revealing possible deficiencies, as well as the need for reflection to direct or redirect these actions and activities.

In this study, we perceived that pregnant women are more predisposed to nutritional alterations, presented by more than half of our sample. Other studies that assessed nutritional alterations during pregnancy also evidenced a significant number of women with nutritional alterations in this period of the lifecycle⁽⁸⁻⁹⁾.

Pregnant adolescents are more predisposed to weight/height alterations for their gestational age. They present different nutritional needs, depending on the growth rate and the maturity status. Pregnant adolescents whose weight is below or superior to normal levels for their gestational age can harm their own health and cause damage for the fetus as well⁽¹⁰⁾. However, adult pregnant women are not free from this damage either⁽¹¹⁻¹²⁾.

Prenatal visits started at an ideal moment (first and second semester of pregnancy) to assess and realize nutritional interventions, with a view to adequate fat accumulation in the mother's tissues and optimal fetal growth⁽¹³⁾. The number of prenatal visits is in accordance with MS recommendations⁽⁵⁾. These data suggest that nutritional status alterations are not related to prenatal coverage, but deficiencies in the contents and quality of prenatal care, in line with an earlier study⁽¹³⁾.

There is a need to rethink the quality of nutritional care, i.e. the adequacy of prenatal care quality from the perspective of nutritional care, reinforced by some studies carried out in prenatal SUS services⁽¹⁴⁻¹⁵⁾.

An adequate quality of prenatal care presupposes health professionals prepared to identify pregnant women at nutritional risk, through early nutritional status assessment, as well as through personalized nutritional guidance to improve the mother's nutritional and delivery conditions and adequate the infant's birth weight. These orientations should be offered according to each patient's economic, social and cultural possibilities⁽⁴⁾. Pregnant women need to be referred to social assistance programs whenever necessary.

A study of nutritional education in public health services revealed that nutritional training is deficient among physicians and nurses, with difficulties

to identify and deal with the patients' food problems, as well as with their own food problems. The same research indicated that nutritional deficiencies are not seen as a problem to be solved by health service, but as an economic issue⁽¹⁾.

These data demonstrate that, on some occasions, pregnant women receive nutritional guidance with little mention of a healthy, comprehensive and varied diet. On others, they do not receive any guidance or encouragement whatsoever during prenatal care, nor iron sulphate supplements.

Studies have shown that, when pregnant women receive nutritional guidance, their nutritional condition improves. This is the case for over- as well as underweight women, i.e. nutritional alterations are knowledge-related⁽¹³⁻¹⁶⁾.

Nutritional guidance should be pertinent to the pregnant women's nutritional needs. During pregnancy, these needs change depending on weight before pregnancy, weight gain during pregnancy, pregnancy stage and level of physical activity.

Nutritional recommendation instruments, i.e. which clarify the nutrient groups (carbohydrates, vitamins, minerals, fibers, proteins and lipids) needed for balanced nutrition, and also determine the quantity to be ingested, can be very useful for nutritional guidance.

During pregnancy, the specific food pyramid for the gestational period can be a strategic instrument when it is used individually, as it shows food products, quantities to be consumed and foods to be avoided by pregnant women⁽⁴⁾.

FINAL CONSIDERATIONS

We believe that pregnant women need support in terms of nutritional adaptation, from health professionals as well as policy makers. There is an urgent need to adequate nutritional care so as to transform discourse into actual practice.

This study allows us to conclude and suggest the need for further research about this theme, with a view to obtaining solutions to cope with this problem, as literature is scarce. Moreover, the theme of nutrition needs to be reconsidered in undergraduate and graduate teaching, thinking about professional skills development and research.

Other suggestions include: the elaboration of prenatal health education programs about nutritional assessment and guidance, to the example of the pregnancy course, waiting room, and recycling for the nursing and medical team active in prenatal care. We also highlight the need to demand health policies in

favor of food and supplement distribution to pregnant women in need. This can contribute to the improvement of women's nutritional health in the gravid-puerperal cycle, as well as to newborn health, and collaborate to put the systemization of nutritional assessment and guidance of pregnant women into practice.

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