



LIFESTYLE OF PREGNANT WOMEN SERVED BY THE PRIMARY HEALTH CARE OF A BRAZILIAN CAPITAL

Estilo de vida de gestantes atendidas na atenção primária à saúde de uma capital brasileira

Estilo de vida de embarazadas de la atención primaria de salud de una capital brasileña

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ABSTRACT

Objective: To evaluate the lifestyle of pregnant women cared for within the public primary health care network. **Methods:** This is a descriptive study with quantitative and cross-sectional approach, carried out in 12 Basic Health Units of Fortaleza (Ceará), in the period from December 2015 to April 2016, with 107 pregnant women. It used the Fantastic Lifestyle form, which comprises 25 items divided into nine domains. The answers to each item have scores ranging from 0 to 4 points. The sum of all points allows lifestyle to be rated into Excellent (85 to 100 points), Very good (70 to 84 points), Good (55 to 69 points), Regular (35 to 54 points), and Needs improvement (0 to 34 points). Descriptive statistical analysis was applied in order to present the results through measures of central tendency (mean) and measures of spread (percentage, standard deviation, and maximum value). **Results:** The overall average (72.26 points) ranked the group under the category Very good. Of the pregnant women, 9% (n=10) were found in the category Excellent and 6% (n=6) in the category Regular. No pregnant woman had her lifestyle classified as Needs improvement. Physical activity presented the lowest mean, while alcohol had the highest mean, with great disparity between them. **Conclusion:** Although the lifestyle was classified as adequate, relevant domains to maternal and child health, such as physical activity and nutrition, showed below-expected scores.

Descriptors: Pregnancy; Life Style; Prenatal Care.

RESUMO

Objetivo: Avaliar o estilo de vida de usuárias gestantes atendidas no âmbito da atenção primária à saúde da rede pública. **Métodos:** Trata-se de estudo de natureza descritiva, abordagem quantitativa e corte transversal, realizado em 12 Unidades Básicas de Saúde de Fortaleza (Ceará), no período de dezembro de 2015 a abril de 2016, com 107 gestantes. Utilizou-se o formulário Estilo de Vida Fantástico, que possui 25 itens divididos em nove domínios. As respostas de cada item possuem pontuação que varia de 0 a 4 pontos. A soma de todos os pontos permite classificar o estilo de vida em Excelente (85 a 100 pontos), Muito bom (70 a 84 pontos), Bom (55 a 69 pontos), Regular (35 a 54 pontos) e Necessita melhorar (0 a 34 pontos). Aplicou-se análise estatística descritiva dos dados quantitativos para apresentação de resultados utilizando medidas de tendência central (média) e medidas de dispersão (porcentagem, desvio padrão e valor máximo). **Resultados:** A média geral obtida (72,26 pontos) enquadrou o grupo na categoria Muito bom. 9% (n=10) das gestantes encontraram-se na categoria Excelente e 6% (n=6) na categoria Regular. Nenhuma gestante teve seu estilo de vida classificado como Necessita melhorar. Atividade física apresentou a menor média, enquanto o álcool obteve a média mais elevada, havendo grande disparidade entre elas. **Conclusão:** Apesar de o estilo de



vida ter sido classificado como adequado, aspectos relevantes para a saúde materno-infantil, como atividade física e nutrição apresentaram pontuações abaixo das esperadas.

Descritores: Gravidez; Estilo de Vida; Cuidado Pré-Natal.

RESUMEN

Objetivo: Evaluar el estilo de vida de las usuarias embarazadas que son asistidas en la atención primaria de salud de la red pública. **Métodos:** Se trata de un estudio descriptivo, de abordaje cuantitativo y corte transversal realizado en 12 Unidades Básicas de Salud de Fortaleza, Ceará en el período entre diciembre de 2015 y abril de 2016 con 107 embarazadas. Se utilizó el formulario Estilo de Vida Fantástico que tiene 25 ítems divididos en nueve dominios. Las respuestas de cada ítem tiene la puntuación entre 0 y 4 puntos. La suma de todos los puntos permite la clasificación del estilo de vida en Excelente (entre 85 y 100 puntos), Muy bueno (entre 70 y 84 puntos), Bueno (entre 55 y 69 puntos), Regular (entre 35 y 54 puntos) y Necesita mejorías (entre 0 y 34 puntos). Se realizó un análisis descriptivo de los datos cuantitativos para la presentación de los resultados utilizándose las medidas de tendencia central (media) y medidas de dispersión (el porcentaje, la desviación típica y el valor máximo). **Resultados:** La media global (72,26 puntos) ha puesto el grupo en la categoría Muy bueno. El 9% (n=10) de las embarazadas estaban en la categoría Excelente y el 6% (n=6) en la Regular. Ninguna embarazada tuvo su estilo de vida clasificado en Necesita mejoría. La actividad física presentó la media más baja mientras el alcohol tuvo la media más elevada con gran diferencia entre ellos. **Conclusión:** Aunque el estilo de vida haya sido clasificado como adecuado los aspectos relevantes para la salud materno-infantil como la actividad física y la nutrición presentaron puntuaciones abajo de las que se esperaba.

Descritores: Embarazo; Estilo de Vida; Atención Prenatal.

INTRODUCTION

Health promotion stands as one of the central ideas of the public health discourse of the past decades, with a view to redirecting its practices⁽¹⁾. Modifications of the conceptions related to maternal and child health are highlighted, specifically concerning the role of the lifestyle adopted by the mother in determining health and illness. Since pregnancy is an intense period of changes, discovery and learning, it also becomes an opportunity for investment in health education and care strategies⁽²⁾.

Previously, every pregnancy was regarded as a risk because of the possibility of occurrence of biological damage to both, mother and child. Little concern was given to socioeconomic factors, but this has changed from the 1970s on, and low-income women became the target population for those risks. Recently, the criterion used for definition of risk is no longer the family income, since the economic factors solely can not predict the outcome of health and disease in a given social group. The current focus is on the combination of the influences of psychological factors, socioeconomic conditions and lifestyle⁽³⁾. In this more comprehensive perspective, reference is made to the general living conditions that comprise several elements: family income, job, nutrition, housing, sanitary conditions, access to health services and maternal education⁽⁴⁾.

The lifestyle is characterized by identifiable behavior patterns, which can have a strong effect on health, and be related to several aspects that reflect the attitudes, values and opportunities in people's lives^(5,6). Eating and physical activity habits, for instance, are lifestyle elements that play an important role in promoting health and preventing disease⁽⁷⁾. Added to these, other lifestyle elements are important to the health and well-being: avoiding the use of tobacco and alcohol, having a harmonious relationship with family and friends, practicing safe sex and managing stress, besides the necessity of having an optimistic and positive view of life⁽⁸⁾.

The birth of a child marks the life of the woman as a period affected by many changes and with a huge impact on personal and family routine. The pregnant woman, in addition to having to adapt herself to the physical changes brought about by the delivery, is faced with a new being that is dependent on her. Therefore, as a period of deep physical and psychological changes in a woman's life, pregnancy can and should be also an opportunity for the adoption of a healthier lifestyle⁽⁹⁾.

The most important actions for successful outcomes on the care for pregnant women and stimulation of a healthier lifestyle are dependent on the access and quality of care provided by health services, especially in prenatal care, and care during the childbirth and puerperium. Prenatal follow-up has an impact on the reduction of maternal and perinatal mortality, provided that women have access to the services, which should be of sufficient quality to control the identified risks and, therefore, it is fundamental for the promotion of maternal-child health⁽¹⁰⁾.

In this sense, the practice of the professionals who conduct the prenatal consultations should consider guidelines in all lifestyle domains, but, for this, it is necessary to identify the behavior of the pregnant women in each one of these domains, which justifies the present study. Thus, the proposition of interventions more focused on the needs of pregnant women and capable of promoting health for mothers and their children will be made possible, contributing to the lifestyle of pregnant

women. Moreover, the result of this research will guide the work of the cited team, thus contributing to the construction of a health network of higher quality, more humanized and engaged in the understanding of the being in an comprehensive way.

In view of the above, the present study aims to evaluate the lifestyle of pregnant women cared for within the public primary health care network.

METHODS

This is a descriptive study, with a quantitative and cross-sectional approach. Data collection was performed in all 12 Basic Health Units (BHU) of the IV Regional Administrative Secretariat of Fortaleza, Ceará, Brazil. The municipality has 86 BHUs, distributed into six Regional Administrative Secretariats, of which the one that houses the higher education institution responsible for the research was selected for data collection.

Data collected was carried out between December 2015 and April 2016. The days and times for data collection were scheduled in advance, in order to coincide with the shifts when the prenatal consultations are held in the Basic Health Units.

The sample was constituted by pregnant women who had already attended at least one prenatal visit, whether nulliparous or multiparous, with any level of schooling, whose gestation was at least in the fourth month, and aged between 19 and 35 years. As exclusion criteria, the study considered the pregnant women classified by the doctor as being at risk (data reported by the pregnant woman), who had speech, hearing and/or intellectual problems that could make it impossible to apply the checklist, as well as those with motor alterations that could compromise the performance of physical activities, such as hemiplegia, paraplegia, lower limb fracture in consolidation, among others.

The list of pregnant women served in each basic unit was sought. From that, the sample was calculated for infinite population, obtaining the value of 107. The study considered the 95% confidence level and the maximum desirable error of 0.05, with standard deviation of 0.26.

For collection of data on the lifestyle of the pregnant women, the Fantastic Lifestyle checklist⁽¹¹⁾, rendered into Portuguese⁽¹²⁾, was used. This is a comprehensive tool, developed by the Department of Family Medicine of the McMaster University (Canada), aiming to assist the prevention practitioners so that they manage to assess their patients' lifestyle and get to know them better⁽¹¹⁾.

The instrument has 25 items divided into nine domains: 1) family and friends; 2) physical activity; 3) nutrition; 4) tobacco and toxics; 5) alcohol; 6) sleep, seat belts, stress and safe sex; 7) type of behavior; 8) insight and 9) career. The score of each item ranges from 0 to 4 points. The analysis of the items separately enables a more in-depth look at the different behaviors of the pregnant women related to each of the lifestyle domains.

The domains formed the acronym *fantastic*, which represents the initial letters of the names of the nine domains in the English language: F = Family and friends; A = Activity (physical activity); N = Nutrition; T = Tobacco & toxics; A = Alcohol; S = Sleep, seatbelts, stress, safe sex; T = Type of behavior; behavior pattern A or B; I = Insight; and C = Career (work; satisfaction with the profession).

The instrument considers the behavior of pregnant women and its results make it possible to determine the association between lifestyle and health. The items are arranged as a Likert scale, where 23 have five response alternatives and 2 are dichotomous. The alternatives are arranged in the form of columns to facilitate their codification and the alternative to the left is always the one of lowest value, or of less relation with a healthy lifestyle.

The coding of items is done by points, as follows: 0 for the first column, 1 for the second column, 2 for the third column, 3 for the fourth column, and 4 for the fifth column. Items that only have two alternatives punctuate: zero for the first column and 4 points for the last column. The sum of all points allows to reach a total score that classifies the individuals into five categories, which are: Excellent (85 to 100 points), Very good (70 to 84 points), Good (55 to 69 points), Regular (35 to 54 points) and Needs improvement (0 to 34 points).

For data analysis, the scores of each lifestyle domain present in the checklist of each pregnant woman were calculated, as well as their grand total. The data obtained were tabulated as spreadsheets in electronic medium, and then migrated to the software Statistical Package for the Social Sciences (SPSS for Windows, version 17.0). Descriptive statistical analysis of the quantitative data was applied to present the results using measures of central tendency (mean) and measures of spread (percentage, standard deviation and maximum value).

The research is in compliance with Resolution no. 466/12 of the National Health Council, and was approved by the Ethics Committee of the State University of Ceará under Opinion no. 1 430 328.

RESULTS

The study included 107 pregnant women, of which 42.1% (n=45) were between 20 and 24 years old, 42.1% (n=45) were in the 4th or 5th month of gestation, and 34.6% (n=37) were experiencing the second gestation; 57.1% (n=61) of the pregnant women had finished high school and 74.8% (n=80) had a family income of 1 to 2 minimum wages (Table I).

Table I - Characterization of the sample according to age, month of gestation, number of previous pregnancies, schooling and family income. Fortaleza, Ceará, Brazil, 2016.

Characterization of the sample	n	%
Age (full years)		
20 – 24	45	42.1
25 – 29	38	35.5
30 – 35	24	22.4
Month of gestation		
4th - 5th	45	42.1
6th - 7th	30	28.0
8th - 9th	32	29.9
Previous pregnancies		
None	24	22.4
One	37	34.6
Two	31	29.0
Three	11	10.3
Four	4	3.7
Schooling		
Incomplete elementary school	10	9.3
Complete elementary school	11	10.3
Incomplete high school	15	14.0
Complete high school	61	57.1
Incomplete higher education	2	1.9
Complete higher education	8	7.4
Family income		
None	3	2.8
Less than one minimum wage	11	10.3
1 to 2 minimum wages	80	74.8
3 to 4 minimum wages	12	11.2
5 to 6 minimum wages	1	0.9

As to the individual classification of the pregnant women, 59% (n=63) had their lifestyle classified as Very good and 26% (n=28) were in the category Good; 9% (n=10) and 6% (n=6) of them presented, respectively, Excellent and Regular lifestyle.

Each lifestyle domain has its own maximum score, which varies according to the number of existing items. For each one, the mean obtained was calculated, being represented as a percentage in relation to the maximum possible score for the domain (Table II).

Table II - Domain, number of items, maximum possible score, mean obtained and maximum percentage obtained on the lifestyle of pregnant women served by the health units. Fortaleza, Ceará, Brazil, 2016.

Domain	Number of Items	Maximum score	Mean obtained	Pmax (%)
Family and friends	2	8	6.77	84.62
Physical Activity	2	8	3.20	40
Nutrition	3	12	7.62	63.58
Tobacco and toxics	4	16	14.13	88.31
Alcohol	3	12	11.81	98.41
Sleep, seatbelt, stress and safe sex	5	20	12.70	63.20
Type of behavior	2	8	4.71	58.87
Insight	3	12	8.41	70.08
Career	1	4	2.91	72.75
Total	25	100	72.26	72.26

Pmax = Mean obtained represented in percentage in relation to the maximum possible score for the domain.

Likewise, the mean score of each of the 25 items of the form was calculated (Table III). The sample scored 2.89 points in the overall mean score per item of the checklist.

Table III - Mean score and standard deviation for each lifestyle item of pregnant women served by the health units. Fortaleza, Ceará, Brazil, 2016.

Item	Mean score	Standard deviation
Family and friends		
I have someone to talk to	3.26	1.20
I give and receive affection	3.50	0.93
Physical Activity		
I am vigorously active	0.30	0.83
I am moderately active	2.90	1.45
Nutrition		
I eat a balanced diet	2.31	1.47
Excess sugar, salt, fat	3.00	1.21
Healthy body weight	2.32	1.55
Tobacco and toxics		
I smoke tobacco	3.69	0.84
I use drugs	3.74	1.00
I overuse medicines	3.81	0.73
I drink coffee, tea and cola	2.89	0.68
Alcohol		
Consumption per week (alcohol)	3.96	0.27
Consumption per occasion (alcohol)	3.85	0.58
I drive after drinking	4.00	0.00
Sleep, seatbelt, stress and safe sex		
I sleep well	2.30	1.54
I wear a seat belt	3.18	1.42
I am able to cope with the stress in my life	2.63	1.32
I relax on my leisure time	2.71	1.39
I practice safe sex	1.89	1.72
Type of behavior		
I seem to be in a hurry	2.44	1.63
I feel angry and hostile	2.27	1.38
Insight		
I am a positive or optimistic thinker	3.21	1.11
I feel tense and disappointed	2.50	1.36
I feel sad and depressed	2.70	1.37
Career		
I am satisfied with my job or role.	2.91	1.60

In the category Insight, particularities were found in relation to their answers. The items “I feel tense and disappointed” and “I feel sad and depressed” present a prevalence of 17.8% (n=19) and 14% (n=15), respectively, in responses scoring 0 (almost always) and 1 (fairly often), increasing to 48.6% (n=52) and 44.9% (n=48), when including also the responses with a score of 2 (sometimes).

DISCUSSION

It was identified in the data analysis that the lifestyle domains of pregnant women evaluated in the present study (Physical activity; Nutrition; Sleep, safety belt, stress and safe sex; and Type of behavior) need to be managed during prenatal consultations in order to improve their lifestyle, promoting health for the mother-child binomial.

In the domain Family and friends of the present study, when the frequency of affection exchange and intimate conversations was evaluated, the Pmax obtained corresponded to 84.62%, indicating a conduct with adequate influence on health.

The domain Physical activity obtained an overall mean score of 3.2 (Pmax=40%), being lower than the 5.11 found in healthy adult subjects⁽¹⁴⁾ and the 4.32 obtained by university students⁽¹³⁾. This figure is close to that of 2.8 found in medical students in the 5th to 8th semester⁽¹⁴⁾.

Studies conducted in pregnant women populations found a low level of physical activity^(15,16). The physical activity profile of pregnant women in the city of Campina Grande (Paraíba) was identified as low since the first gestational trimester, decreasing even more over time until reaching 100% of the sample in a sedentary behavior pattern from the 32nd week on⁽¹⁵⁾. Another

research also conducted in the IV Regional Secretariat of Fortaleza obtained 80.3% of the sample in physical activity levels considered sedentary or mild, demonstrating the prevalence of inactivity in the gestational period, showing correlation between physical activity and gestational trimester⁽¹⁶⁾.

In the Fantastic Lifestyle checklist, the Physical Activity domain has 2 items. Of these, the item "I am vigorously active" obtained the lowest mean (0.3 points). On the other hand, the item "I am moderately active" obtained a higher mean (2.9 points), which considers the domestic chores as a moderate activity⁽¹¹⁾.

The domain Nutrition of the Fantastic Lifestyle checklist assesses the frequency of consumption of a balanced diet, the excess of sugar, salt, animal fat, foods with low nutritional value and salty snacks, as well as the weight interval between individual's weight at that moment and the ideal figure. The percentage found in the current research in this domain (Pmax=63.58%) was below the overall percentage mean of the instrument (72.26%). Even though nutritional status and weight gain in this period are crucial for both mother and fetus, there is still no satisfactory behavior in relation to this item⁽¹⁷⁾.

The domains Tobacco and Toxics and Alcohol presented the highest percentages (Pmax=88.31% and 98.41%, respectively) in the study in question. In a study carried out at the Teaching Maternity Hospital of the Federal University of Rio de Janeiro (UFRJ), 5.5 and 7.4% of the puerperas reported, respectively, the use of tobacco and alcohol during pregnancy. Also in that study, the authors verified that nutritional support had a protective effect against smoking, concluding that pregnant women should be informed about the possible risks of these substances⁽¹⁸⁾. It is noticeable in the present research the pregnant women's caution with regard to the consumption of these items. It also stands out that the item referring to the consumption of coffee, teas and cola had the lowest score in these two domains (2.89).

The domain Sleep, seatbelt, stress and safe sex obtained a percentage in the present study of 63.2%. A study carried out with pregnant women living in Alfenas (Minas Gerais), in their second or third trimester of pregnancy, reported as the main reasons for the decrease in sleep quality the increase in nocturnal urinary frequency and the concern over the health and birth of the baby⁽¹⁹⁾. There is evidence that stress during pregnancy and during the first years of life may be a factor related to the development of cancer⁽²⁰⁾.

The item "I practice safe sex" presented the second lowest score (1.89) in the present study, evidencing the need for empowerment of women living in Fortaleza about the risks to the fetus resulting from the practice of unsafe sex during pregnancy. A possible explanation for this outcome may be that women regard prevention methods as contraceptives only, without realizing the risks associated with unsafe sexual practices, despite the fact that such risks have long been recognized. Pregnant women and their sexual partners should be investigated and informed about sexually transmitted infections, since their presence in pregnancy can lead to abortion, premature birth, or congenital diseases, and have debilitating effects on pregnant women as well⁽²¹⁾.

The mean score of the domain Type of behavior presented the second lowest percentage in relation to the maximum possible score (58.87%), as it obtained the mean score of 4.71. Approximate results were found in a group of hypertensive patients (4.69)⁽¹³⁾ and in a group of medical students (4.2)⁽¹⁴⁾.

In the present study, the domain Insight had a percentage below the overall mean (70.08%). In spite of this value, for the two items that assessed the feelings of sadness, disappointment and depression, 48.6% (n=52) and 44.9% (n=48), respectively, of the pregnant women responded with the options Almost always, Fairly often or Sometimes.

Studies have approached the depression during pregnancy in the primary health care level⁽²²⁻²⁴⁾. Those researchers have identified that sociodemographic factors, such as poverty level, psychiatric history, absence of partner, and stressful life events are related to postpartum depression⁽²²⁾. Moreover, they have observed that women with prenatal depression were 2.4 times more likely to present postpartum depressive symptoms⁽²³⁾. There is a relationship between depression during pregnancy and low birth weight, as well as prematurity⁽²⁴⁾.

The scores of the domain Career reached the percentage of 72.75% of the maximum possible score in the present study. This domain, in the Fantastic Lifestyle checklist, has only one item and therefore may not fully reflect the relationship of the pregnant women with their work.

In a study carried out with pregnant women attended to at Basic Health Units in the city of Itabuna (Bahia), where the domestic chores were performed by 62.9% of the pregnant women, a highly significant prevalence was found between low back pain and domestic activity⁽²⁵⁾. Other studies should be carried out seeking to understand the lack of adherence to physical exercises, as well as the possible benefits and disadvantages of domestic activities during pregnancy.

The mean score of the Physical activity domain presented the lowest percentage of the maximum possible score (40%) among all domains investigated. These data demonstrate an emerging need to comply with the recent opinion of the American College of Obstetricians and Gynecologists⁽²⁶⁾, which considers that physical activity should be encouraged for all low-risk pregnant women, while those with medical complications should be evaluated before initiating a physical activity program.

These data are reinforced by a review that disseminated information among the health professionals working in Brazil on the recommendations of physical activity during pregnancy⁽²⁷⁾. The authors reported that previously sedentary women should start with 15-minute aerobic workouts, three times a week, and gradually increase the exercise time to the recommended level: 150 minutes of aerobic exercise per week, or 30-minute workouts five times a week⁽²⁷⁾.

In view of the differences found in the means and Pmax of each domain studied, the need for a specific approach to health promotion focused on topics such as physical activity, nutrition, safe sex and type of behavior in the prenatal period is perceived. With regard to the domains that investigate the risks associated with drug use, tobacco and alcohol consumption, however, the results reveal the pregnant women's awareness, possibly resulting from the reflection of an effective work of the health team.

CONCLUSION

It was found that some aspects of lifestyle, such as physical activity and nutrition, need adjustments so that pregnant women adopt healthier life habits through regular physical activity and a balanced diet. On the other hand, the pregnant women seem to know the negative effects associated with the use of drugs, alcohol and tobacco.

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