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HEALTH BELIEFS REGARDING DIET: A PERSPECTIVE OF HYPERTENSIVE BLACK INDIVIDUALS

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Health beliefs regarding diet: a perspective of hypertensive black individuals

CRENÇAS EM SAÚDE SOBRE A DIETA: UMA PERSPECTIVA DE PESSOAS NEGRAS HIPERTENSAS

SUPUESTOS EN SALUD SOBRE LA DIETA: UNA PERSPECTIVA DE PERSONAS NEGRAS HIPERTENSAS

Cláudia Geovana da Silva Pires¹, Fernanda Carneiro Mussi²

ABSTRACT

The objective of this descriptive-exploratory study was to identify the health beliefs of black individuals with hypertension regarding the barriers and benefits of diet for controlling the disease, including the sociodemographic factors associated with the health beliefs surrounding diet control. One hundred and six black adults with hypertension were interviewed using a specific instrument. The data were analyzed considering the percentages, frequency of the cases, scores and prevalence ratio. The global analysis of beliefs showed a preponderance of beliefs regarding the benefits of diet control. It was observed that men, younger individuals, lack of a partner and low educational level and income were related to the beliefs regarding the benefits of adopting a healthy diet. In conclusion, health promotion among the black population requires an interdisciplinary approach and specific health policies addressing this populations' needs, aimed at preventive and curative aspects.

DESCRIPTORS

Hypertension
Ethnic group and health
Food habits
Nursing

RESUMO

A pesquisa descritiva-exploratória objetivou identificar as crenças em saúde, de pessoas negras com hipertensão arterial, sobre as barreiras e benefícios relacionados à dieta para o controle da doença, conhecendo os fatores sociodemográficos associados às crenças em saúde quanto aos benefícios para o controle da dieta. Cento e seis adultos, negros e hipertensos foram entrevistados utilizando-se instrumento específico. Os dados foram analisados em percentuais, frequência de casos, escores e razão de prevalência. A análise global sobre as crenças mostrou predomínio da categoria e benefícios para o controle da dieta. Foi observada tendência entre homens, pessoas mais jovens, sem companheiro e com baixas escolaridade e renda à menor crença quanto aos os benefícios atinentes à adoção da dieta. Concluiu-se que a promoção da saúde da população negra exige abordagem interdisciplinar e política de saúde, contemplando as suas especificidades e necessidades e dirigidas a aspectos preventivos e curativos.

DESCRITORES

Hipertensão
Etnia e saúde
Hábitos alimentares
Enfermagem

RESUMEN

Investigación descriptivo-exploratoria que objetivó identificar supuestos en salud de personas negras con hipertensión arterial sobre barreras y beneficios relativos a la dieta de control de la patología y conocer los factores sociodemográficos asociados a supuestos de salud sobre beneficios para control alimentario. Ciento seis adultos, negros e hipertensos fueron entrevistados utilizándose instrumento específico. Datos analizados en porcentajes, frecuencia casuística puntajes y razón de prevalencia. El análisis global sobre los supuestos mostró predominio de la categoría beneficios para control de la dieta. Se notó tendencia a percibir menos supuestos de salud sobre beneficios para adopción de dieta en hombres, personas más jóvenes, sin compañero, con baja escolaridad e ingresos. Se concluyó en que la promoción de salud de la población negra exige abordaje interdisciplinario y política sanitaria que contemple sus especificidades y necesidades dirigidas a aspectos preventivos y curativos.

DESCRIPTORES

Hipertensión
Etnia y salud
Hábitos alimenticios
Enfermería

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INTRODUCTION

Arterial hypertension (AH) is a non-transmissible chronic illness with multiple expressions. It constitutes a relevant public health problem due to its economic and social implications. Prevalence and mortality rates are high in Brazil and abroad⁽¹⁾. The disease is triggered in isolation or associated with the aggravation of different diseases⁽¹⁾; it involves multiple factors and is associated with non-modifiable and modifiable risk factors. Due to its chronic and disabling nature, it leads to early retirements, long hospitalization periods, high treatment costs and changes in patients' self-esteem and self-concept⁽²⁾. Adherence levels are unsatisfactory, contributing to the disease's morbidity and mortality rates⁽²⁻³⁾. This panorama reveals that the prevention and control of arterial hypertension are fundamental, and that the range of risk factors associated with the disease implies lifestyle changes.

Literature analysis shows that factors related to the treatment, the health system and the patient interfere in adherence to arterial hypertension treatment⁽³⁾, a disease permeated by biological, socioeconomic, cultural and environmental dimensions.

Despite the importance of studying this range of factors related to anti-hypertensive treatment, little has been explored about the health beliefs of black people⁽⁴⁾ with hypertension regarding disease control measures, including a diet low in salt, saturated fat and cholesterol. Biological and sociocultural reasons associated with disease prevalence justify research involving self-declared black people. It is important to highlight that this racial group seems to present a hereditary characteristic that determines the irregular functioning of sodium and calcium cell uptake and renal transportation, which can be attributed to the presence of a sodium-saving gen that leads to the cell inflow of sodium and the cell outflow of calcium, thus facilitating the appearance of arterial hypertension⁽⁵⁾. Blacks tend to suffer from higher tension levels than whites and more severe forms of the illness⁽⁶⁻⁷⁾. Higher prevalence levels of arterial hypertension have also been highlighted in this racial group^(5,7). It should be highlighted that lower prevalence levels of arterial hypertension among black people were found in only two Brazilian studies⁽⁸⁻⁹⁾ that used the race/color variable.

In Brazil, research covering the relation between ethnic origin and health is still incipient⁽¹⁰⁾. Despite the lack of Brazilian health research that used the race/skin color variable, and although some of them appoint high morbidity and mortality levels in the black population, the explanation for this fact is based on the victims' unprivileged socioeconomic position⁽⁴⁾. Thus, race/skin color needs to be understood not only from a biological viewpoint, but also as a social variable that carries the burden of histori-

cal and cultural constructions, playing a determining role in the lack of equity in health among racial groups⁽⁴⁾.

A research that analyses health studies involving black people addresses the possibility that arterial hypertension was yet another burden of slavery for this ethnic group and its descendants in Brazil, to the extent that a range of risk factors were abruptly introduced in a population group that probably lived in balance in its natural environment, despite a genetic predisposition^(5,10). These risk factors include dietary habits.

Concerning black people's diet, risk factors have become part of their daily life since colonization and slavery. People who arrived from Africa received ingredients found on the American continent, i.e. cassava or corn flower, which meant a rupture with their habitual dietary pattern. High-calorie diets were obviously necessary to sustain enslaved people during workdays of more than 18 hours, in the most adverse conditions. The poorest people's diets was low-quality and mainly based on codfish, dried meat, flour and sweet potato^(5,10).

Blacks tend to suffer from higher tension levels than whites and more severe forms of the illness. Higher prevalence levels of arterial hypertension have also been highlighted in this racial group.

Saturated fat intake was a widespread habit. Black slaves appreciated bacon, for example, because of its flavor and substance. In the 18th century, the use of salt was fundamental for people and animals' survival. As a European heritage, salt use turned into a disastrous dietary habit for black people and also served as a process to cure illnesses. Empirical medicine at that time gave sugar, bacon, meat and salt the status of medicines. Fruits played a more significant role in the diet than roots, greenery and vegetables, which were less consumed⁽⁴⁾. Across generations, all of these factors may have influenced dietary beliefs

and habits among the black.

Today, specific biomedical recommendations exist for arterial hypertension control, recommending the intake of about 5 g of salt per day (corresponding to 2 g of sodium), added to foods, which can reduce systolic pressure by 2 to 8 mmHg. Besides, restricting industrialized salt sources like ready-made sauces, soup powder, processed meats, canned food, frozen food, smoked food and snacks. Choosing natural spices is advised, such as lime, herbs, garlic, onion, parsley and chives, to replace industrialized alternatives⁽¹¹⁾.

As for the consumption of fats and sweets, reducing high-calorie foods and replacing sweets and sugar derivatives by complex carbohydrates and fruits is recommended, foods with a low fat percentage, as well as eliminating hydrogenated fats and using mono- or polyunsaturated fats, present in sources of vegetable origin. A food plan should be adopted that attends to the requirements of a healthy diet, body weight control, personal preferences and the individual/family's purchasing power⁽¹¹⁾.

Despite the determination of medical-scientific rationality for a healthy diet, cultural understanding about these contents can vary among hypertensive people and receive influence from socioeconomic factors, as well as individual and group perceptions and experiences concerning arterial hypertension.

Based on the above and considering health beliefs as a behavioral indicator, the following research objectives were defined: to identify the health beliefs of black people with arterial hypertension about diet-related barriers and benefits for disease control; to get to know the socio-demographic factors associated with health beliefs about benefits for disease control.

METHOD

A quantitative and exploratory research was accomplished. The Health Beliefs Model was chosen. The basic premise of this model is that perceiver's world and his motivation determine his behavior, and not the physical environment⁽¹²⁻¹³⁾. The model is a valuable conceptual instrument to understand a range of health-related behaviors, such as dietary alterations, compliance with medical regimens, decision to stop smoking, among others⁽¹³⁾. The model was published by Rosenstock in 1966 to explain preventive action, and later applied to behaviors related to general health maintenance, including the search for the diagnosis and correct attendance to medical recommendations⁽¹²⁾.

Four variables demonstrate the model: perceived susceptibility (subjective perception of the person's risk of catching a certain condition or disease); perceived severity (degree of emotional stimulation created concerning the disease and the different biological, social, emotional and financial consequences it entails); perceived benefits (belief in the effectiveness of actions) and perceived barriers (negative aspects of the action are assessed in a cost-benefit analysis, considering possible costs of time, money, effort and bother)⁽¹²⁾. In this study, beneficial variables and perceived barriers to arterial hypertension control in black people were investigated.

The research was developed in Salvador, at a referral health center for care delivery to arterial hypertension patients located in the neighborhood Liberdade, whose population comprises 82.8% of black and mulatto people⁽¹⁴⁾. The sample consisted of 106 male and female adults medically diagnosed with arterial hypertension for at least six months, who declared themselves black and/or mulatto, attended the place of study for a consultation and/or blood pressure measurement and were enrolled in the hypertension program at the place of study. To calculate the sample size, the following were assumed: expected frequency of benefits 50%, acceptable error 40%, significance level 5% and sample power around 60%⁽¹⁵⁾.

What justified the choice of black people was the greater prevalence of arterial hypertension in that group,

as they experience the disease earlier and tension levels are higher in comparison with white people^(2,5,8-9), and also due to the specificity of group-related beliefs, in view of this people's history since the times of slavery and social inclusion⁽⁵⁾.

The data collection form comprised two parts: Part I contained closed questions about socio-demographic characteristics, cardiovascular risk factors, diseases associated with arterial hypertension and life habits related to the participants' diet; Part II was a *Scale of Beliefs* on barriers and benefits related to the indicated arterial hypertension control diet. The scale had been validated in a doctoral dissertation, its reliability had been confirmed and authorization was obtained for use in this research⁽¹²⁾.

Concerning beliefs about the diet, the scale presents phrases about barriers and benefits to use little salt in food, eat less fat, sweets and sugar. In the presentation of the scale of diet-related health behaviors, that is, the items (phrases) about *perceived benefits* were intermingled with items about *perceived barriers*. The survey of dietary beliefs was preceded by the following question: What is your opinion about using little salt in your food, eating less fat, less sweets? To give an example:

Quadro 1 - Example of the survey of dietary beliefs

1. What is your opinion about using little salt in food?	DT=1	DP=2	I=3	C=4	CT=5
BENSAL – Little salt should be used in food because it increases the blood pressure					
BARSAL - Food with little salt has no taste					

BENSAL- benefits for salt intake; BARSAL- barriers for salt consumption

A five-level Likert scale is presented, with answers ranging from DT (I totally disagree=1), D (I disagree=2), I (indecisive=3), A (I agree=4) to AT (I totally agree=5). To facilitate answers, participants received a figure to score their response as phrases were read, in which the colors green, blue, pink, yellow and red corresponded to these levels, respectively.

Participants were chosen randomly, while awaiting blood pressure verification or interprofessional consultations. People who arrived first were contacted and, if they identified themselves as black and/or mulatto and had been diagnosed with arterial hypertension for at least six months, as confirmed on the Health Center registration form, they were invited to participate in the research and received explanations about the research aims. In case they agreed, they were forwarded to a private room and, after reading, clarifying and signing the Informed Consent Form, the interview started and was recorded. At the end, the interviewees' contribution was acknowledged. The secrecy of participants' personal identity was guaranteed, as well as the right to drop out of the study at any time and privacy. The study received approval from the Research Ethics Committee of the Bahia State Health Secretary, Opinion No. 19/2006.

No difficulties were found for the participants to score the answers with the help of the figure. Interviews were recorded with a view to guaranteeing faithful registers. When typing the response form answers on the computer, the researchers checked for coherence between verbal responses and answers marked during the interview. No disagreement was found though. Afterwards, data were coded, typed and processed in SPSS for Windows, version 12.0.

Sample characteristics were analyzed as percentages. To analyze the percentage of beliefs on barriers and benefits related to hypertension control diets, the beliefs indicator was constructed as follows: a) for each study participant, an arithmetic means was created for barriers, using the items (phrases) corresponding to the barriers, and another arithmetic means for benefits, using the items (phrases) corresponding to the benefits; b) for each participant, the difference was established between the arithmetic means for barriers and for benefits, constructed as described in *a*; c) the results of the difference between the arithmetic means for each participant, constructed as described under *b*, were classified in three categories: beliefs on benefits = values of difference between arithmetic means below zero; beliefs on barriers = values of difference between arithmetic means above zero; indecisive in the perception of beliefs on barriers and benefits = values of difference between arithmetic means equal to zero. That is, no beliefs on barriers or benefits predominated.

Later, for bivariate analyses, the association between socio-demographic factors and the belief indicator were verified, using the prevalence rate (PR) and a 95% confidence interval. Hence, the PR was used to compare the percentages for categories of socio-demographic factors (age, gender, family income, education and marital status) related to the category beliefs on perceived benefits for dietary control. Prevalence rates superior to one represented greater perception of benefits, while rates lower than one expressed lesser perception of benefits. When the confidence interval included the unit (1), the significance level was considered superior to 5%; when it did not, it was inferior or equal to 5%. Significance was set at 5% for statistical tests.

Table 1 – Disagreement, indecision and agreement among participants according to health beliefs on benefits and barriers associated with little salt use in food – Salvador, BA – 2006

Benefits and barriers associated with the use of little salt in food	DT=1		DP=2		I=3		CP=4		CT=5	
	n	%	n	%	n	%	n	%	n	%
BENSAL1 - Little salt should be used in food because it increases blood pressure	-	-	2	1.9	-	-	7	6.6	97	91.5
BENSAL2 - Salt is not good for your health	3	2.8	1	0.9	2	1.9	17	16	83	78.3
BENSAL3 - You lose your palate or appetite when you lose a lot of salt	9	8.5	10	9.4	12	11.3	23	21.7	52	49.1
BENSAL4 - Using little salt avoids kidney problems	-	-	-	-	32	30.2	8	7.5	66	62.3
BENSAL5 - The doctors recommend using little salt and they are correct	-	-	2	1.9	1	0.9	5	4.7	98	92.5
BENSAL6 - Salty food is not advisable to anyone	1	0.9	3	2.8	1	0.9	13	12.3	88	83
BENSAL7 - Food with little salt is more tasty	33	31.1	21	19.8	1	0.9	18	17	33	31.1
BARSAL1 - Food with little salt is tasteless	19	17.9	11	10.4	-	-	15	14.2	61	57.5
BARSAL2 - For most people, salt does no harm	41	38.7	15	14.2	8	7.5	21	19.8	21	19.8
BARSAL3 - People who do not make their own food cannot reduce the salt	22	20.8	6	5.7	1	0.9	10	9.4	67	63.2
BARSAL4 - To eat food with little salt, you should be strong-will	4	3.8	3	2.8	1	0.9	12	11.3	86	81.1

Obs.: (n=106)

RESULTS

Participants' socio-demographic characteristics

Out of 106 interviewees, 73.6% were women. The median age was 54 years. Younger participants (50%) were part of the age groups <45 (24.5%) and 45 to 54 (24.5%). Also, 51% of older participants, i.e. ≥ 54, were between 54 and 63 years, 26.5% between 63 and 69 years (16%) and 9 ≥ 70 years (8.5%). Catholic religion (69.8%), low education (up to 1st year of primary education – 63.2%) and low family income (less than one minimum wage – 52.8%) were predominant. They were professionally active, including housework (67.0%; and 61.3% lived without a partner. Concerning the medical diagnosis of arterial hypertension, 80.2%; had received it more than one year earlier and 87.7% were undergoing medication and/or non-medication treatment.

Health beliefs on barriers and benefits for dietary adherence

Perceived benefits predominated in six out of seven phrases on the use of little salt in food, as participants agree partially (AP) or totally (AT) on the negative effects of salt for health (94.3%), increased blood pressure (98.1%) and renal problems (69.8%); that physicians correctly recommend the use of little salt (97.2%); that using a lot of salt leads to the loss of one's palate and appetite (70.8%); that salty food is not advisable to anyone (95.3%). On the other hand, 50.9% partially (PD) or totally disagreed (TD) that food with little salt is more tasteful, which indicates that less benefits were perceived in that phrase. In three out of four phrases about barriers to use little salt, barriers were perceived more strongly, as participants DA or TA that food with little salt has no taste (71.7%); that people who do not make their own food cannot reduce salt (72.6%); and that one should be strong-willed to eat with little salt (92.4%). The perception of barriers was lesser for the phrase *for most people salt does no harm* (Table 1).

In six out of seven phrases about beliefs regarding benefits associated with eating little fat, perceived benefits predominated, as participants AP or AT that fatty food produces cholesterol (100%); causes harm to health (91.5%); is heavy and difficult to digest (94.3%); causes cardiovascular problems (99%); obstructs veins and arteries (98.1%) and causes obesity (99%). Nevertheless, 49.1% DP or DT that food with less fat tastes bad, indicating that less benefits were perceived in this sentence. In five out of six phrases on barriers to eat little fat, participants AP and AT that food without fat tastes bad (57.6%); some fatty foods are delicious (73.6%); it is very difficult to follow a

diet and not be allowed to eat everything (88.7%); often one does not have a choice and one has to eat what is available (96.%); it is difficult to change if a person is used to eating fats (88.7%). This result indicates greater perception of barriers to eat with less fat. Participants DP and DT that fat causes no harm to most people (67.9%), with lesser perception of barriers in this sentence. The perception of lesser benefits concerning the belief that low-fat food tastes bad was reinforced, identifying that more than half of the participants perceived barriers regarding that sentence, as 73.6% considered that some fatty foods are delicious (Table 2).

Table 2 – Participants’ disagreement, indecision and agreement according to health beliefs on benefits and barriers associated with eating less fat – Salvador, BA – 2006

Benefits and barriers associated with eating less fat	DT=1		DP=2		I=3		CP=4		CT=5	
	n	%	n	%	n	%	n	%	n	%
BENGOR1 - Fatty food produces cholesterol	-	-	-	-	-	-	1	0.9	105	99.1
BENGOR2 - Fat causes harm to health	6	5.7	3	2.8	-	-	7	6.6	90	84.9
BENGOR3 - Fatty food is heavy and hard to digest	1	0.9	3	2.8	2	1.9	17	16	83	78.3
BENGOR4 - Eating a lot of fat causes hear problems	1	0.9	-	-	-	-	5	4.7	100	94.3
BENGOR5 - Fat obstructs arteries and veins	-	-	-	-	2	1.9	1	0.9	103	97.2
BENGOR6 - Fatty food tastes bad	29	27.4	23	21.7	3	2.8	14	13.2	37	34.9
BENGOR7 - Fat causes obesity	-	-	-	-	1	0.9	5	4.7	100	94.3
BARGOR1 - Some fatty foods are delicious	21	19.8	7	6.6	-	-	18	17	60	56.6
BARGOR2 - Fat causes no harm to most people	61	57.5	11	10.4	8	7.5	7	6.6	19	17.9
BARGOR3 - Low-fat food tastes bad	35	33	8	7.5	2	1.9	18	17	43	40.6
BARGOR4 - It is hard to follow a diet and not be allowed to eat everything	6	5.7	2	1.9	4	3.8	16	15.1	78	73.6
BARGOR5 - Often there is no choice. the person eats what’s available	-	-	3	2.8	1	0.9	10	9.4	92	86.8
BARGOR6 - If a person is used to eating fat. it is hard to change	10	9.4	1	0.9	1	0.9	14	13.2	80	75.5

Nota: (n=106)

In five out of six phrases on beliefs regarding benefits associated with eating less sweet, less sugar, most participants’ understanding demonstrates the predominance of perceived benefits: AP and AT that sugar makes you fat and causes obesity (93.4%); that little sugar avoids diabetes (97.2%) and is good for your health (94.3%); that sweets increase blood sugar (95.2%) and that sugar makes the blood thicker (78.3%). Nevertheless, 77.3% AP and AT that, if a person loves sweets, not eating them is impossible, appointing that less benefits are perceived. In three

out of five phrases about barriers to eat less sweets, less sugar, most participants’ answers indicate greater perception of barriers: AP and AT that people used to eating sweets are unable not to eat them (81.1%); that sweet are nutritious (81.1%); that people have to eat sweets if they want to (81.1%). In the other two phrases about barriers, the participants’ answers indicate lesser perception of barriers: DP and DT that it would be horrible not to eat sweets (55.7%) and that sugar does no harm (71.7%) (Table 3).

Table 3 – Participants’ disagreement, indecision and agreement according to health beliefs about benefits and barriers associated with eating less sweet, less sugar –Salvador, BA - 2006

Benefits and barriers associated with eating less sweet. less sugar	DT=1		DP=2		I=3		CP=4		CT=5	
	n	%	n	%	n	%	n	%	n	%
BENDOCE1- Sugar makes you fat. causes obesity	1	0.9	1	0.9	5	4.7	3	2.8	96	90.6
BENDOCE2- Eating little sugar avoids diabetes	1	0.9	1	0.9	1	0.9	5	4.7	98	92.5
BENDOCE3- Eating little sugar is good for your health	5	4.7	-	-	1	0.9	3	2.8	97	91.5
BENDOCE4- If a person loves sweets. it is impossible not to eat them	18	17	6	5.7	-	-	26	24.5	56	52.8
BENDOCE5- Eating sweets increases sugar in your blood	1	0.9	1	0.9	3	2.8	17	16	84	79.2
BENDOCE6- Sugar thickens the blood	7	6.6	-	-	16	15.1	6	5.7	77	72.6
BARDOCE1- Sugar causes no harm	61	57.5	15	14.2	-	-	20	18.9	10	9.4
BARDOCE2- People used to eating sweets are unable not to eat them	12	11.3	6	5.7	2	1.9	21	19.8	65	61.3
BARDOCE3- Sweets are nutritious	20	18.9	9	8.5	8	7.5	28	26.4	41	38.7
BARDOCE4- A person has to eat sweets if (s)he wants to	15	14.2	5	4.7	-	-	19	17.9	67	63.2
BARDOCE5- It would be horrible if I could not eat sweets	43	40.6	16	15.1	-	-	13	12.3	34	32.1

Obs.: (n=106)

Socio-demographic factors associated with health beliefs on benefits of following arterial hypertension diet

Table 4 displays three categories of health beliefs about benefits and barriers related to eating less sweet, low-fat food and less salt, showing that the global anal-

ysis of health beliefs about arterial hypertension diets showed the predominance of the beliefs on benefits category.

Table 4 – Arterial hypertension prevention and control measures per categories of beliefs on diet-related benefits and barriers – Salvador, BA – 2006

Arterial hypertension prevention and control measures	Category: Beliefs on benefits		Category: indecisive in the perception of beliefs on benefits and barriers		Category: Beliefs on barriers	
	n	%	n	%	n	%
	Eating less sweet	97	91.5	1	1	8
Eating low-fat food	86	81.1	1	0.9	19	18
Using less salt	73	68.9	1	0.9	32	30.2

Obs.: (n=106)

In Table 5, it is observed that men manifested 3% less health beliefs on benefits regarding salt intake (PR=0.97); 7% less health beliefs on benefits regarding the avoidance of fat consumption (PR=0.93); and 5% less health beliefs

on benefits of eating less sweets, less sugar (PR=0.95) when compared to women; consequently, women perceived more benefits than men concerning these arterial hypertension prevention and control measures.

Table 5 – Benefits of diet regarding salt, fat and sweet consumption according to socio-demographic variables – Salvador, BA – 2006

Socio-demographic variables	Benefits of diet regarding consumption											
	Salt				Fat				Sweet			
	n	%	PR	95%CI	n	%	PR	95%CI	N	%	PR	95%CI
Gender												
Man	28	67.9	0.97	(0.72.1.30)	27	77.8	0.93	(0.75.1.17)	28	89.3	0.95	(0.83.1.10)
Women	77	70.1	1		78	83.3	1		77	93.5	1	
Age(years)												
<45	25	56	0.76	(0.52.1.10)	25	80	0.97	(0.78.1.21)	26	92.3	1	(0.88.1.13)
45 -54	26	73.1	1.07	(0.81.1.41)	26	88.5	1.11	(0.93.1.33)	26	96.2	1.05	(0.95.1.17)
>=54	54	74.1	1		54	79.6	1		53	90.6	1	
Marital status												
No partner	64	68.8	0.97	(0.75.1.25)	64	84.4	1.09	(0.9.1.31)	65	90.8	0.95	(0.86.1.06)
With partner	41	70.7			41	78			40	95		
Education												
First-year	67	68.7	0.97	(0.74.1.25)	67	79.1	0.91	(0.76.1.08)	66	92.4	1	(0.89.1.12)
Second-year	31	74.2	1.1	(0.85.1.42)	31	87.1	1.09	(0.91.1.3)	32	93.8	1.02	(0.91.1.14)
Third-year	7	57.1			7	85.7			7	85.7		
Income												
< 1 minimum wage	56	66.1	0.9	(0.7.1.16)	55	74.5	0.83	(0.69.0.99)	55	92.7	1	(0.90.1.12)
1 to 3 m.w.	33	75.8	1.14	(0.88.1.46)	33	93.9	1.23	(1.05.1.44)	33	90.9	0.98	(0.86.1.11)
> 3 m.w.	16	68.8			17	82.4			17	94.1		

PR (prevalence rate); 95%CI (confidence interval *p< 0.05)
Obs.: (n=106)

People in the age range <45 years perceived 24% less benefits regarding salt intake (PR=0.76) and 3% less benefits of fat consumption (PR=0.97) when compared with people ≥ 54 years. People who had finished the first year of primary education perceived 3% less benefits regarding salt intake (PR=0.97) and 9% less benefits of fat consumption (PR=0.91) than those who had finished the third year. Participants who had finished the first and third year of

primary education equally perceived benefits of eating less sugar (PR=1.0). People without a partner demonstrated greater health beliefs on benefits of avoiding fats when compared with people with a partner (PR=1.09). Thus, they perceived 3% less benefits regarding salt intake (PR=0.97) and 5% less benefits regarding sweet consumption (PR=0.95). People with a lower income (less than 1 minimum wage) perceived 10% less benefits of avoiding

salt intake (PR=0.90) than people who gained more than 3 minimum wages per month; 17% less benefits of fat consumption (RP=0,83), with a statistically significant difference (CI= 0.69; 0.99). Both participants who received less than one minimum wage and those who received more than three equally perceived health beliefs on benefits regarding less sugar consumption (PR=1.0). Also, a trend is observed towards the lesser perception of health beliefs on benefits when income is higher.

DISCUSSION

Participants declared themselves black and, thus, demonstrated a feeling of identification associated with a cultural part of the Afro-Brazilian population, which shared a historical, social and cultural heritage. Predominant characteristics were: women, adults, with low education and monthly income levels, without a partner and professionally active. This social group is disproportionately represented in power positions and, from an economic and social perspective, is poorer and less instructed in educational terms than the remainder of the Brazilian population⁽⁴⁾, expressing social and economic inequalities that can affect health. In that sense, to think of problem-solving care practices, it is essential to consider that people who need care seek attendance that considers their health needs, is coherent with their socioeconomic profile and considers their position in the social hierarchy and gender position within and beyond the family unit⁽⁵⁾.

In this study, perceived beliefs on benefits of dietary recommendations based on biomedical knowledge were predominant. Despite the belief that perceived benefits concerning the adoption of these measures does not necessarily imply coherent and effective action, belief by itself is a strong predictor of health behavior⁽¹²⁾. Hence, overcoming beliefs on benefits and barriers identified in this study represents a positive predictor of adherence to a healthy diet.

Although participants hardly disagreed on the negative effects of salt, they perceived more beliefs regarding barriers to tasteless food when prepared with little salt, confirming the feeling of pleasure when consuming salty food. Hence, choosing low-salt food implies making efforts, feeling less pleasure and being involved in food preparation. These barriers reflect the importance participants attribute to salt and the reason for their resistance against changing their habits. One consequence of the enslaving colonial culture, which turned into a disastrous risk factor for arterial hypertension among black people, was the establishment of salt as a dietary habit⁽⁵⁾. It is highlighted that the Northeastern and more specifically the Bahian cultural, due to the strong African influence, is rich in traditional plates prepared with a lot of salt, fat and spices. Thus, people with arterial hypertension, like the black people who participated in this research, need help to use other culinary elements to prepare meals, like

lime instead of salt, vinegar, sweet oil, among others, to improve the taste of their food. They also need help from friends and relatives for the healthy practice of a reduce salt intake⁽¹⁶⁾.

If, on the one hand, most participants perceived more benefits and less barriers to eat less fat due to the damage it causes, most of them partially and totally agreed with phrases on barriers, that it is very hard to follow a diet and not be allowed to eat everything; that, often, due to a lack of choice, they have to eat what is available and that it is difficult to change. It should be considered that low income can influence beliefs and can represent a barrier to avoid less fatty foods. The predominance of perceived beliefs regarding less benefits or greater barriers of eating less fat was predominantly linked to reduced palate, limited choice of what to eat and difficulties to change this life habit. These data stimulate reflections that not only unfavorable living conditions, but also cultural constructions or black people's activism concerning diet contribute to maintain a diet that does not respond to their needs in qualitative terms, like at the time of colonization and slavery. In this perspective, food options need to be offered with lower sodium levels, low levels of saturated fat, restricted refined sugar levels⁽¹⁷⁾, lower cost and a better taste, linked with purchasing power and personal preferences.

Perceived benefits of eating less sweet foods were predominant, in view of their damage for health, such as obesity, diabetes etc. Most participants, however, found it difficult to transpose these beliefs to the practice of a less sweet diet, mainly when they like, are used to and desire for sweets. As observed, the participants' predominant belief that sweet is nutritious goes back to the age of slavery, when a high-calorie diet was obviously necessary to sustain a person as productive workforce during a long workday⁽⁵⁾.

Although the study participants perceived more health beliefs regarding benefits of diet and that behavioral changes mean giving up some pleasures for people who fight to survive in poor living conditions, health education needs to consider people's individuality and social context.

Among the participants, the study also revealed groups at greater risk of non-adherence to the arterial hypertension diet, such as younger people, without a partner, with low education levels and men.

As for younger people, other studies found higher percentages of non-adherence to treatment^(11,17-18). Justifications were related to the absence of symptoms, delaying the search for health services, and to the non-perception of vulnerability to the disease, as well as to the fact that younger people resist to perceive the consequences of uncontrolled arterial hypertension. Elderly people on the other hand, who are more concerned with their health, cleave to treatment as a life-extending alternative⁽¹⁹⁾. As chances of lifestyle changes are more limited among

younger people, strategies to minimize or avoid such a frequent problem are an urgent need.

Concerning gender, black women manifested more beliefs regarding benefits of dietary control. Studies proved that 83% of women, against 17% of men, followed a low-salt diet, and that more women than men showed high levels of treatment adherence⁽²⁰⁾. They may be more concerned with personal and family health, more frequently turn to primary care services and participate in health education activities. At the same time, they use pharmacy and emergency services more in case of health symptoms or problems⁽²⁰⁾.

As for the marital status, less benefits were perceived in beliefs associated with diet and higher pressure levels in unmarried individuals, people over 60 and low income levels. Studies^(17,19-20) indicate that receiving partners' support can enhance participation in treatment follow-up. Not being married can be directly correlated with a lack of family support. People without a partner to share their diet with may not value the healthier nature and preparation of foods.

Concerning education, lesser beliefs on health benefits also prevailed. Thus, the lower the education level, the worse the participants' health conditions and the more difficult the adherence process to a healthy diet⁽¹⁸⁻¹⁹⁾, mainly among elderly people with greater difficulties to adapt to new life habits.

It is beyond doubt that arterial hypertension implies important behavioral changes. Therefore, health teams need to make efforts in the psychosocial approach. Thus, overcoming the current health model demands different investments in professional education and intervention, with a view to care delivery to people instead of sick bodies. This presupposes understanding different ways of being and living, as well as experiences and expectations for life with the chronic condition, deciding to get treatment or not⁽²¹⁾. How people think, feel, what they know, their beliefs, values and attitudes and the social context behav-

ior is processed in are essential factors that need to be considered in the therapeutic process and to propose an effective pedagogical strategy⁽²¹⁾.

For some people, changing dietary habits can represent an almost insurmountable challenge. In that sense, nurses can be identified as elements of trust in sharing, sensitive listening and interventions on hypertensive people's health problems. In most cases, patients not only want to clarify doubts, but also someone who becomes solidary with their psychosocial suffering and takes into account the relation between their life history, behaviors and the illness process, beliefs and social context in health care. Besides, actions to change people's attitudes will only be effective if they are motivated and have fundamental support at their disposal in the economic and social structure⁽²¹⁾. In short, a health policy needs to be required that considers ethnic particularities in health promotion and arterial hypertension prevention and control.

CONCLUSION

The global analysis of health beliefs among black people with arterial hypertension about barriers and benefits related to the diet to control the disease showed that beliefs on benefits predominated. As for socio-demographic factors associated with health beliefs on benefits of diet control, the study revealed a trend towards the perception of less beliefs on the benefits of diet in poorer socio-economic groups, young adults, men and people without a partner, contributing to the identifying of risk groups and treatment adherence indicators. The study appointed the need to reflect on health care that acknowledges subjectivity and socioeconomic conditions as factors that can strongly influence arterial hypertension treatment adherence. Thus, promoting the health and well-being of the black population requires an interdisciplinary approach and a health policy that address their particularities and needs and are oriented towards preventive and curative aspects.

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