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BELIEFS, MISCONCEPTIONS AND PATTERNS TOWARDS MATERNAL NUTRITION AMONG PREGNANT WOMEN ATTENDING PRIMARY HEALTH CENTERS IN OSOGBO, NIGERIA

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ABSTRACT

Introduction: This study assessed the beliefs and misconceptions towards maternal nutrition among pregnant women attending Osogbo primary health centres with a view to improving nutrition by strengthening the nutrition counseling component of antenatal care (ANC) and increasing literacy status to reduce taboos/misconceptions.

Methods: A descriptive cross-sectional design was employed. Data were collected using semi-structured self-administered questionnaire. Data was analyzed using SPSS version 25.0 and presented in table and charts. The hypotheses were tested using chi square at 5% significance level

Results: The findings showed that the overall feeding pattern of pregnant women was average (56%). A major misconception was that eating less food will make delivery easier. Among different factors affecting good dietary practices among pregnant women, majority 150 (79.4%) said okra and snail are taboos in their culture.

Conclusion: Poor dietary practice can affect the quality of life of both the foetus and the mother during and after pregnancy. Wrong belief/misconception can results in a condition affecting the health of the mother and the foetus.

Key words: Belief, Maternal Nutrition, Misconception, Pregnant women

INTRODUCTION

Pregnancy is viewed as a critical period in the life of women and is usually subjected to a number of food taboos as a way of safeguarding their lives and that of the unborn baby. Poor maternal nutrition, especially in rural settings, adversely affects pregnancy and birth outcomes. In many local communities, pregnant women have beliefs and misconception patterns towards various diets with consequent depletion of vital nutrients.[1]

Malnutrition is one of the most serious health problems affecting children and their mothers. The problem of malnutrition among pregnant women poses a great challenge to nutritionist and the health sector as well as to the government.[1,2] Beliefs and misconception patterns (taboo) among pregnant women have been identified as one of the factors contributing to maternal under-nutrition in pregnancy.[2,3]

One of the factors responsible for this vulnerability of women in the society is what is known as taboo. Some are based on centuries of trial and error and have positive values while others may be useless or harmful.[4,5] However, on account of these beliefs and customs, often regarded as taboo, women and children are often denied certain needed cares and benefits. This denial does not exclude even the period of pregnancy, in which pregnant and lactating mothers are

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deprived or denied certain needed care, especially foods that contain sufficient needed nutrients.[1,4]

A study by Ugwa on beliefs and misconception patterns (taboo) towards maternal nutrition among pregnant women attending antenatal care at General Hospital in Kano, Northwest Nigeria found that all of the respondents believe that women should eat more during pregnancy in order to have healthy babies.[2] In another study on food taboos and misconceptions among pregnant women of Shashemene District, Ethiopia, it was found that half (49.8%) of pregnant women encountered food taboos at least for one food item. [6] Food items avoided were, linseed 92 times, honey 84 times, milk 67 times, fatty meat 63 times, eggs 50 times, fruits 41 times and vegetables 17 times. Reasons mentioned for avoidance of these food items include 'plastered on the fetal head', 'makes fatty baby and difficult delivery', fear of abortion, evil eye and fetal abnormality.[6] In the study, educational status showed a significant association with belief of balanced diet.[6]

Malnutrition of the mother does not just affect the pregnant woman only but also has a devastating effect on the fetus. Malnutrition has been ranked as the major cause of maternal mortality and it is a major determinant of a successful pregnancy and a healthy well-nourished baby.[2,7] The foregoing explained the need to assess the feeding practices of the women due to their traditional beliefs and taboos and to determine its effect on their nutritional status as this has effects on the pregnancy outcome. Therefore, this study accessed the feeding pattern, beliefs, misconceptions and factors affecting good dietary practices among pregnant women attending selected primary health centers in Osogbo, thereby enhancing current knowledge of nutritional counseling as an essential component of antenatal care

METHODS

This research was carried out at Oke Baale primary health care centre and Atelewo primary health care centre (PHC) in Osogbo, Osun state. The health centres provide promotive, preventive and basic curative care to the surrounding communities. The coverage area is estimated to be 3 square kilometer. An important land mark in the region is the Osun Osogbo shrine. Osogbo, an ancient city of approximately 625,000 people based on the last Nigerian census data, is the capital city of Osun state, in South Western Nigeria.

The target population for this study were all pregnant women attending antenatal clinics of the selected primary health centers in Osogbo. A descriptive cross sectional design was used. The sample size was determined using Taro Yamane formula ($n=N/1+N\ (e)^2$) for each study setting. The total population of the two selected health facilities was 120 for Oke Baale PHC and 100 for Atelewo PHC. The sample size calculated was 101 for Okebaale PHC and 88 for Atelewo PHC with total of 189.

A well-structured, self-administered questionnaire was administered to the respondents and was collected immediately after completion. The researcher visited each primary health care centre to collect data for a period of one week. In order to ensure validity and reliability, a pilot study of 10% of the sample was carried out by administering 17 questionnaires to pregnant women attending Ota Efun Primary Health care centre in Osogbo, Osun state.

The data were analyzed through descriptive statistics (mean, standard deviations, and frequencies) and inferential statistical measures such as Chi square to establish the relationship between variables. The data is presented using frequency tables and charts. Variables were considered statistically significant at $p < 0.05$. The Statistical Product and Service Solutions (SPSS package) version 25 was used for the data analysis. The principle of beneficence, non-maleficence and confidentiality were maintained.

RESULTS

Table 1 showed the socio-demographic characteristics of the respondents. Most of the respondents (34.4%) were between 26-

Table 1: socio-demographic characteristics of the respondents

Variables	Categories	Frequency (n=189)	Percentage (%)
Age as at last birthday	19-25	52	27.5
	26-30	65	34.4
	31-36	24	12.7
	36-41	48	25.4
Religion	Christianity	76	40.2
	Islam	113	59.8
Ethnicity	Yoruba	123	65.1
	Igbo	28	14.8
	Hausa	19	10.1
	Others	19	10.0
Marital status	Married	114	60.3
	Divorced	57	30.2
	Widow	18	9.5
Educational background	No formal education	18	9.5
	Primary	62	32.8
	Secondary	66	34.9
	Tertiary	43	22.8
Employment status	Employed	53	28.0
	self-employed	118	62.4
	Unemployed	18	9.6
Monthly income	<#10,000	23	12.0
	#10,000-#20,000	71	37.6
	#21,000-#30,000	43	22.8
	#31,000-#40,000	33	17.5
	above #40,000	19	10.0
Number of past pregnancies	1	33	17.5
	2	24	12.7
	3	100	52.9
	4	32	16.9
Number of children	1	23	12.2
	2	128	67.7
	3	19	10.1
	4	19	10.1
Birth interval	<24 months	42	22.2
	24-47 months	63	33.3
	>48 months	84	44.4
Desires to have another child	Yes	114	60.3
	No	75	39.7

30years; more than half (59.8%) were Muslim; majority (65.1%) were Yoruba; majority (60.3%) were married; most of the respondents (34.9%) had secondary education; almost two-third (62.4%) were self-employed; almost two-fifth earned less than 20,000; more than half (52.9%) had number of past pregnancies to be 3; most of the respondents (67.7%) had number of births to be 2 and less than half (44.4%) of the respondents had >48 months birth interval.

As shown in table 2, two-thirds of the respondents 80 (42.3%) strongly agreed that since they have been pregnant, eat carbohydrate, 67 (35.4%) eat protein (beans, egg, meat, fish), 53 (28.0%) eat fats & oil, 91 (48.1%) eat micronutrients.

Table 3 showed beliefs and misconceptions of pregnant women towards dietary practices. Majority 122 (64.6%) said eating less food will let their baby come easier, 134 (70.9%) disagreed that eating more food will give them healthy baby, 127 (67.2%) disagreed that they do not need to eat animal-based food for healthy pregnancy, 115 (60.8%) disagreed that it is not necessary for them to take water more than the one they take after food, 123 (65.1%) disagreed that taking folic acid during pregnancy is a waste of money, while 101 (53.4%) incorrectly felt that cocoa drink such as Bournvita should be avoided during pregnancy, among other misconceptions.

Table 4 shows there is a significant relationship between educational status of women and pattern of feeding (p=0.000). As shown in figure 1, the overall feeding pattern of pregnant women is good (56%).

Figure 1: Feeding Pattern of Pregnant Women

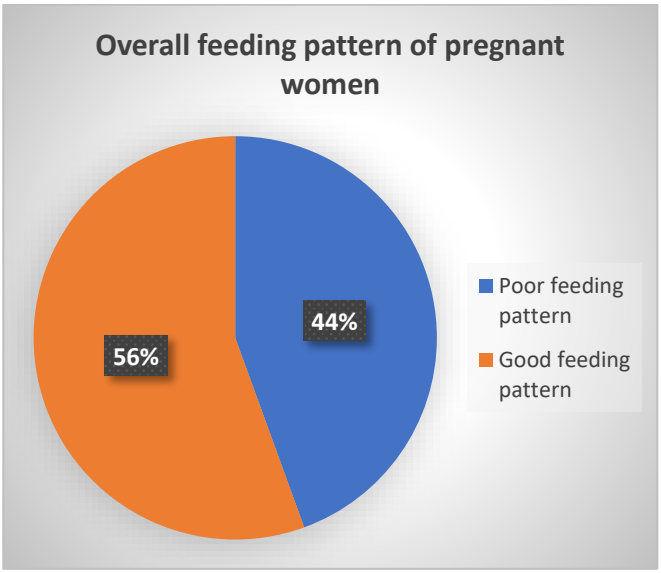

Table 2: Feeding Pattern of Pregnant Women

Variables	Categories				
	Strongly agreed n (%)	**Agreed n (%)**	**Undecided n (%)**	**Strongly disagreed n (%)**	**Disagreed n (%)**
Since I have been pregnant, I eat carbohydrate (garri, bread, fufu, spaghetti, yam)	80 (42.3%)	51 (27.0%)	14 (7.4%)	20 (10.6%)	24 (12.7%)
Since I have been pregnant, I eat protein (beans, egg, meat, fish)	67 (35.4%)	33 (17.5%)	47 (24.8%)	19 (10.1%)	23 (12.2%)
Since I have been pregnant, I eat fats & oil (groundnut oil, soyabean oil, palm oil)	53 (28.0%)	38 (20.1%)	42 (22.2%)	37 (19.6%)	19 (10.1%)
Since I have been pregnant, I eat micronutrients (vegetables, water leaf, orange, banana)	14 (7.4%)	91 (48.1%)	33 (17.5%)	33 (17.5%)	18 (9.5%)
I take daily required amount of water as taught by nurses	34 (18.0%)	5 (2.6%)	43 (22.8%)	79 (41.8%)	28 (14.8%)

Table 3: Beliefs and misconceptions of pregnant women towards dietary practices

Variables	Categories		
	Yes n (%)	**No n (%)**	**I don't know n (%)**
Eating less food will lets my baby come easier	122 (64.6%)	38 (20.1%)	29 (15.3%)
Eating more food will give me healthy baby	23 (12.2%)	134(70.9%)	32 (16.9%)
I don't need to eat animal base food for healthy pregnancy	32 (16.9%)	127(67.2%)	30 (15.9%)
It is not necessary for me to take water more than the one I take after food	42 (22.2%)	115(60.9%)	32 (16.9%)
I don't need to take vital supplement since am eating well	18 (9.5%)	78 (41.3%)	93 (49.2%)
I don't need to take food to increase my energy level during pregnancy	10 (5.3%)	147(77.8%)	32 (16.9%)
Taking folic acid during pregnancy is a waste of money	38 (20.1%)	123(65.1%)	28 (14.8%)
I must eat food meant for two persons in pregnancy	29 (15.3%)	91 (48.2%)	69 (36.5%)
Bournvita (cocoa drink) should be avoided during pregnancy	101 (53.4%)	74 (39.2%)	14 (7.4%)
My baby will drool saliva if I eat snail	77 (40.7%)	80 (42.3%)	32 (16.9%)
My baby will be dull if I eat okra	69 (36.5%)	61 (32.3%)	59 (31.2%)
Drinking cold water will not allow blood to circulate very well	80 (42.3%)	58 (30.7%)	51 (27.0%)
My baby will be hyperactive if I eat crabs	67 (35.4%)	83 (43.9%)	39 (20.6%)
Snake meat is harmful and must be avoided during pregnancy	53 (28.0%)	24 (12.7%)	112 (59.3%)
Eating plantain will make my child sick	48 (25.4%)	83 (43.9%)	58 (30.7%)

Table 4: Relationship between educational status of women and pattern of feeding

Variables	Categories	total feeding pattern				
		Poor feeding pattern	**Good feeding pattern**	**Total**	**X^{2*}**	**p-value**
Educational background	No formal education	18	0	18	38.707[a]	0.000
	Primary	37	29	66		
	Secondary	19	43	62		
	Tertiary	10	33	43		
Total		84	105	189		

*X^2: Pearson's Chi square

DISCUSSION

The findings from this study showed that most of the respondents (34.4%) are between 26-30years, Muslim, Yoruba, married, multiparous, have secondary education and were self-employed. These findings are similar to those of the study done by Nejimu in which majority were Muslim, literate and younger women.[6] In another study done by Ugwa, it was found that most of the respondents were young women, multiparous and married with good support from the husband.[2]

The feeding pattern of pregnant women showed that two-third of the respondents strongly agreed that since they have been pregnant, they eat carbohydrate, protein, fats and oil, and micronutrients. The overall feeding pattern of pregnant women was good. This finding is in agreement with a study done in Northwest Nigeria in which most of the women agreed that they had adequate intake of oil, meat/fish, fruit/vegetables, had 3 meals/day and did not practice pica.[2] All of the women believe they should eat more during pregnancy in order to have healthy babies.[2]

Findings from beliefs and misconceptions of pregnant women towards dietary practices showed that majority believed eating less food will let their baby come easier, disagreed that eating more food will give them healthy baby and so on. This is corroborated by a study done by Ekwochi *et al* which revealed that the foods most commonly avoided in pregnancy were snail and grass-cutter meat.[8] Snails were avoided because it is believed that they make babies sluggish and salivate excessively like a snail while the fear of prolonged labor was the major reason given for avoiding grass-cutter meat.[8]

With respect to the different factors affecting good dietary practices among pregnant women, majority said okra or snail are taboos in their culture, that they could not afford the cost of supplementation, food supplements always irritate them and their pastor/imam have told them not to take supplementations. This is in contrast to a study on food taboos and cultural beliefs influencing food choice and dietary preferences among pregnant women in the Eastern Cape, South Africa wherein 37% of the women reported one or more food practices shaped by local cultural taboos or beliefs.[9] Payghan *et al* in their study emphasized that empowering community based health workers in providing effective nutrition counseling should be explored and that there is a need for nutrition education and awareness among women by increasing literacy status in order to reduce taboos/misconceptions.[10]

This study found a significant relationship between educational status of women and

pattern of feeding. This showed that higher educational status helps in improving feeding habit in pregnancy. This is corroborated by Payghan *et al* who found that educational status showed a significant association with belief of balanced diet.[10] This study also revealed that food taboos and traditional beliefs relating to pregnancy exist and larger proportion of women still believes in old unscientific tales. This can be improved by strengthening the nutrition counseling component of ANC

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