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RESEARCH ARTICLE

ASSESSING CONSUMPTION PATTERN AND DIETARY PRACTICES OF PREGNANT WOMEN IN SUNYANI TOWNSHIP

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Abstract:

The consumption pattern and dietary practices of women during pregnancy has immense influence on the course of pregnancy and health of a child.

The main aim of the study was to assess the consumption pattern and dietary practices of pregnant women in Sunyani Township. Data was collected from 50 pregnant women. Purposive sampling technique was used to gather data from the two main Government hospitals in Sunyani. Questionnaires were used to solicit primary data from the respondents. Data were analyzed using the Statistical Package for Social Sciences (SPSS, 17).

The results indicated that eating out among the respondents is quite high as data shows that about half of the women ate out and the meal mostly eaten out was lunch and this is attributed to the type of job they do. High percentage of the respondents craved for food. The researchers recommended that Public Health workers and the mass media should increase an awareness campaign to sensitize the pregnant women on the importance of good consumption pattern and their dietary practices.

Key Words: —Consumption pattern, Dietary practices, Pregnant women, Sunyani

Introduction

What a woman eat when she is pregnant can have profound and lasting effects on her child's health. The expression you are what you eat applies, but in this case, it is this; you are what your mother eats.

Pregnancy is one of the most critical and unique period in a woman's life cycle. It is regarded as a "welcome event" for successful womanhood. A woman's body changes
dramatically during pregnancy; hence there is a strong need to balance these changes with an adequate and nutritious diet.

In general, pregnancy occurs in early adulthood when many women are still forming their
adult dietary patterns and thus food patterns are less likely to be bound by strong habits.

During pregnancy, women are more conscious of food and health issues (Anderson, 2001). Pregnancy is a critical period during which good maternal nutrition is a key factor influencing the health of both mother and child. Following an appropriate diet will provide the necessary amounts and varieties of nutrients to ensure an optimal health for both the mother and the baby. Pregnant women require more energy and nutrients to
meet the demands of the developing foetus, and can select suitable servings of foods to meet their increased needs (Kaiser and Allen, 2002).

Pregnancy is often accompanied by a variety of nutritionally linked problems with symptoms that are sometimes very unpleasant and difficult to tolerate (Doerr, 2001) Cravings and aversions, which refer to a strong desire and strong dislike for certain food respectively, are common during pregnancy with complications such as nausea and vomiting (Walker,1985, Bayley, Dye, Jones, DeBono, and Hill, 2002). These complications may cause not only discomfort during pregnancy but also interfere with the dietary intake of the pregnant woman and sometimes causing serious problems (Caplan, 2001)

In the study of Lewallen (2004), the most predominant changes in the behaviour of pregnant women concerned food choice and eating.

Most women tried to consume more fruit and vegetables and identified many foods to be eaten less or avoided completely during pregnancy (Lewallen, 2004). Yet another study in India showed that pregnant women alter their dietary behaviour by including or excluding certain food items because of their pregnancy (Andersen, Thilsted, Nielsen, and Rangasamy, 2003).

However, dietary and nutritional guidelines for pregnant women are based on the food guide pyramid. A higher intake of meat, fish and eggs is recommended because of the need for additional protein (Ortega, 2001) and consumption of red meat, such as beef, is particularly recommended as an important source of iron (Fe) (Kaiser and Allen, 2002).

An increased fish consumption during pregnancy is advised because adequate supply of polyunsaturated fatty acids influences the formation of structures of the nervous

system and retina of newborn infants (Ortega, 2001; Verbeke, Sioen, Pieniak, Van Camp, and De Henauw,2005). Pregnant women are also recommended to eat more fruit and vegetables in order to realise a higher fibre intake and to increase the intake of dairy products because these are a good source of calcium, phosphorus and riboflavin,

which are needed for the development of foetal bony structure and teeth as well as for the mother (Anderson, 2001; Anderson et al., 1993; Eschleman, 1996; Ortega, 2001).

Dietary practices play a significant role in determining the long-term health status of both the expectant mother and the growing fetus. Improper consumption pattern and dietary practices of pregnant women can lead to increase rates of stillbirths, premature birth and low birth weight, maternal and prenatal death.

This study therefore seeks to assess the consumption pattern and dietary practices of pregnant women in Sunyani. The outcome of the results will help health workers to help pregnant women make a better choice of food during pregnancy and other helpful intervention.

Methodology

Area of the study

Sunyani is the regional capital of Brong- Ahafo. The main language of the people is Brong while there are few non-Brong.

The city of Sunyani arose as an outpost camp for elephant hunters during the 19th century. The name Sunyani derives from the Akan word for elephant "Osono. Sunyani Municipality is one of the twenty-two administrative districts in the Brong Ahafo Region of Ghana. It lies between Latitudes 70 20'N and 70 05'N and Longitudes 20 30'W and 2010'W and shares boundaries with Sunyani West District to the north, Dormaa East District to the west, Asutifi District to the south and Tano North District to the east. The Municipality has a total land area of 829.3 Square Kilometres (320.1square miles). It has population of approximately 70,299. Sunyani is about 105 km from Kumasi, the Ashanti regional Capital.

The study was carried out at the Sunyani regional and district hospital and a total of 50 pregnant women were used for the study.

Design of the study

The study adopted descriptive approach and survey was used to gather primary data from the respondents.

Population and sample procedure

The target population constituted all pregnant women in Sunyani. The accessible population was pregnant women who visit the regional and district government hospitals. A total of 50 pregnant women were used for the study.

Purposive sampling technique was used to gather data from the two main Government hospitals in Sunyani. This is because the two health centres have the ante natal facilities and also accept National Health Insurance Scheme card which is free for pregnant women.

Instrumentation

Questionnaires were designed to obtain information about general characteristics of the respondents, pattern of consumption and dietary practices of the respondents.

The questionnaires were delivered to the women at the two government ante natal centres and with the help of research assistants those who cannot read were given a hand to answer it. The questionnaires were mainly closed ones with a few open ended questions.

Data analyses

Processed data was analyzed using Statistical Package for Social Sciences (SPSS) version 17. Descriptive statistics were used to get the percentages and frequencies of variables used in this study.

Limitation of the study

Ideally the study should have covered all types of ante natal health centres, traditional centres and private hospitals in Sunyani to give a clearer picture of the outcome of the study. However, the findings of this study were limited to only the district and regional government hospitals in Sunyani.

Results and Discussions

Table 1: Socio-demographic characteristics of the respondents (N=50)

Variables	Frequency	Percentage (%)
Age (years)		
18-30	39	78.0
31- 50	11	32.0
Marital status		
Married	39	68.0
Unmarried	11	32.0
Religion		
Christianity	35	70.0
Islam	11	22.0
Traditionalist	4	8.0
Educational level		
Primary	21	42.0
Secondary	19	38.0
Tertiary	8	16.9
Others	2	4.0
Occupation		
Public servant	3	4.0
Trading	26	52.0
Farming	4	8.0
Teaching	3	6.0
Others	15	30.0
Income		
Monthly	9	18.0
Weekly	11	22.0
Daily	24	48.0
None	6	12.0

Table I shows the demographic characteristics of the studied women. Majority (68%) of the women were between the age range of 18 and 30 years while 32% were between
ages 31 and 50. In terms of marital status, (68%) were married whiles (32%) were unmarried. The religious backgrounds of the respondents were predominantly Christian (70), (22%) were Moslems whilst (8%) were traditionalists. Similar result was also reported by (Tsegaye, 1998) and (Ojofeitim, 2008)

For educational background, 42% had only primary education, 38% completed secondary education, and 16% had their tertiary education while 4% had other forms of education.

Majority of the women were traders (52%), also in accordance with the report of (Ojofeitim, 2008) 8% were farmers, 6% were teachers, 4% were civil servants while 30% practiced other forms of occupation. Half of the

women (52%) earn daily income, 18% were weekly income earners, 14% earn monthly income and 16% earn no income.

Table 2: Consumption pattern of respondents (N=50)

Variables	Daily	2-3 times a week	Monthly	Occasionally	Never
Cereals and grains					
Rice	56	22	12	10	-
Wheat	12	8		13	67
Bread	36	30	10	22	2
Maize	38	14	16	22	10
Guinea corn	34	36	8	16	6
Millet	6	34	8	36	16
Sorghum	18	30	14	22	16
Starchy roots, tubers and plantain					
Yam	28	54	2	14	2
Cocoyam	10	14	20	26	30
Porridge	16	22	8	24	30
Fufu	58	22	4	10	6
Plantain	36	38	6	12	8
Cassava	32	20	8	11	29
Potatoes	2	6	6	18	68
Gari	18	28	10	24	20
Legumes , pulses and oily seeds					
Groundnut	38	2	26	18	14
Beans	34	42	--	12	12
Werewere	2	12	4	14	68
Agushie	3	3	-	26	68

Table 2 gives the consumption pattern of cereals and grains, starchy roots and plantain, legumes and oily seeds used by the pregnant women in the study. In regard to cereals and grains, the table shows that majority of (56%) consumed rice daily. This could be because rice is affordable and easier to prepare. Also, in this category, part of the daily consumed food is maize (38%) and bread (36%).

The table revealed that majority (67%) of the pregnant women never consumed wheat. This may be to the fact that wheat is an imported food and hence very expensive.

On a daily basis, fufu is consumed by the respondents more than the rest of the food in the starchy roots, tubers and plantain. This could be because fufu is a major staple food in Ghana.

The table revealed that majority (68%) of the pregnant women never consumed potato. This may be to the fact that potato is very expensive.

Yam is another food in this category that the pregnant women (54 %) consumed 2-3 times per week. This may be

to the fact that yam is cultivated in the region and is affordable.
For the category, of foods under legumes, pulses and oily seeds, the table shows that majority (68%) of the studied women never consumed agushie and werewere respectively.
On a daily basis, groundnut is consumed by the respondents more than the rest of the food under legumes, pulses and oily seeds. This could be because there is a belief that much consumption of groundnut helps the breast to produce much breast milk.
Also, in this food category, part of the daily consumed food is all types of beans. This could be because the respondents may be aware of the nutritive value of beans and it functions to build up the body, repair worn out tissues and maintain the body.
Table 3: Pattern of consumption of animal foods and animal products(N=50)

Variables	Daily	2-3 times a week	Monthly	Occasionally	Never
Milk	38	50	2	4	6
Cheese	1	4	-	17	78
Yoghurt	2	2	4	26	66
Cream	8	22	2	40	28
Fish	72	28	-	-	-
Meat	61	26	-	13	-
Offals	34	37	2	11	16
Chicken	29	20	2	46	3
Turkey	8	12	4	37	39
Egg	40	50	2	8	-
Snail	-	28	6	30	36
Prawn	6	36	12	26	20

Pattern of consumption of animal foods and animal products is shown in table 3 above.
According to (Foskett and Cesarani, 2011) animal foods and animal products are important in the diet because they contain first class protein or amino acid which is needed by expectant mothers to develop the inborn baby in the foetus. In the nutshell,
animal foods and animal products are essential for pregnant women in order to repair worn out tissues and maintain the body.
Of the animal products listed in this study, milk is the one that has the higher percent (36%) of daily consumption. (50%) of the respondent consumed 2-3 times per week.
The table revealed that majority of the pregnant women never consumed cheese and yoghurt. This may be to the fact that cheese and yoghurt is not a native menu in the study area.
Of the foods of animal origin, higher percentage of the respondents consumed fish (72%) and meat (61%) on a daily basis and none of the reported never consuming the two during pregnancy. The reason may be that respondents were aware of the essential amino acid in fish and meat. As shown in the table, none of the pregnant women consumed snail in daily basis and (36%) never consumed. This could be because there is a belief that consumption of snail may lead to given birth to a child of watery mouth. Also, consumption of turkey and prawn on a daily basis is low compared to occasionally. Probably, it is not their native meal in this study.

Table 4: Consumption pattern of fruits and vegetables (N=50)

Variables	Daily	2-3 times a week	Monthly	Occasionally	Never
Green leafy Vegetables	42	54	-	4	-
Okro	6	41	6	27	20
Onions	62	38	-	-	-
Tomatoes	66	34	-	-	-
Garden eggs	41	28	2	20	9
Pineapple	6	39	34	15	6
Water Melon	8	29	33	14	16
Orange	69	16	10	5	-
Cherry	2	3	1	29	65
Pawpaw	8	19	24	26	23
Apple	13	29	10	28	20
Coconut	3	29	10	20	28
Banana	18	32	13	19	18
Mangoes	8	19	18	42	13

Table 4 gives the consumption pattern of vegetables and fruits. According to (Foskett and Cesarani, 2011) vegetables and fruits are important in the diet of pregnant women because they contain cellulose which is useful as roughage. Also, fruits and vegetables are rich in vitamins and mineral elements which protect the body against diseases.

All the studied pregnant women consumed fruits and vegetables on daily basis. This finding is contrary to the study of (Agudo et al., 1999; Baker & Wardle, 2003; Evans, Sawyer-Morse, & Betsinger, 2000; Verbeke & Pieniak, 2006) which indicated that consumption of vegetables was low in their study. From the table, it is obvious that on a daily basis, tomatoes, onion, garden eggs and green leafy vegetables were the most consumed. The reason may that; it forms the foundations of soups and stews of the studied area.

For the category, of foods under fruits, orange is the most consumed food on daily basis. This could be because oranges are available throughout the year and affordable. This confirmed to the findings of (Santiango etal, 2013) study on the consumption habits of pregnant women in California.

The table revealed that majority (65%) of the pregnant women never consumed cherry. This may be to the fact that cherry is an imported fruits and hence very expensive.

Table 5: Dietary practices of respondents (N=50)

Nos. of times they eat in a day	Frequency	Percentage (%)
Once	2	4
Twice	3	6
Thrice	25	50
More than three	20	40
Total	50	100

Eat out

Yes	35	70
No	15	30
Total	50	100
Times they eat out		
Daily	10	20
Twice a week	20	40
More than twice a week	5	10
Occasionally	15	30
Total	50	100
Meals they eat out		
Breakfast	16	32
Lunch	32	64
Dinner	2	4
Total	50	100
Snack consumption		
Yes	9	18
No	41	82
Total	50	100

A dietary practice in terms of meal frequency and snacking pattern of the respondents is presented in table 5 above. Majority (50%) of the respondents eat at least three meals a day, (40%) ate more than three times a day whiles the rest of the respondents ate once or twice daily. The respondent who ate once daily may be due to sickness and that they did not have the urge for meals. This practice is not healthy for a pregnant woman and the growing foetus. This findings is in accordance with (Doerr, 2001) study in differences of meal consumption before and during pregnancy of women in Kumasi.

In regard to eating out, majority (70%) of the respondents eat out during pregnancy and this may be to the fact that most of them were traders and government workers and therefore spend more time away from their homes.

Of the number of times they eat out, (40%) of the respondents ate twice a week, (30%) occasionally, (20%) ate on daily basis whilst (10%) ate more than twice a week. The finding of the study is in contrary to the study of (Ademuyima and Sanni, 2013) where majority ate out occasionally.

The meal ate out by majority (64%) of the women is lunch, followed by breakfast (32%) whilst very few (4%) ate dinner outside their home. A similar findings was reported by (Ademuyima and Sanni, 2013) and (Nyangasa, 2011).

Furthermore, (82%) of the respondents did not take snacks may be they were not used to and that the main meal taken was enough for them. The remaining (18%) of the respondents ate snacks because may be they had the desire to take it occasionally.

Table 6: Food cravings

Response	Frequency	Percentage (%)
Yes	36	72
No	14	28
Total	50	100

Majority, (72%) of the respondents craved for food whereas (28%) did not. The data gathered from the respondents is in line with the findings of the (Wardlaw, 1997, Barley, 2002, Nordin etal, 2004) what; it is a great mystery why some women crave for non –food items during pregnancy. The cravings for and eating of items such as starch, ice-cubes, chewing – gum, burnt matches, prickles "ayilo" (white clay) red clay during pregnancy is called pica, etc. Pica is not good for their health since it is not treated and could lead to worn- and the foetus.

Conclusion

It was obvious that most of the women consumed fruits and vegetables as well as fish and meat on a daily basis. This implies that pregnant women in the study area have knowledgeable basic information on the nutritional benefits of such food commodities.

However, some of the foods, such as wheat, potatoes, werewere, agushie, yoghurt were avoided by the women in this study because of the lack of basic information on the nutritional benefits of such commodities or may be it is not their staple food.

Eating out among the respondents is quite high as data shows that about half of the women ate out and the meal mostly eaten out was lunch and this is attributed to the type of job they do. This practice could have a consequent effect on the pregnant woman and the fetus as the hygienic status of the food eaten out could not be ascertained.

Food cravings were higher among pregnant women in this study.

Recommendation

It is recommended that Public Health workers and the mass media should increase an awareness campaign to sensitize the pregnant women on the importance of good consumption pattern and their dietary practices.

In reality, the majority of pregnancies are not planned and thus, it is recommended that

Health care providers need to take every opportunity to encourage women to adopt healthful practices that will support a healthy pregnancy.

It is recommended that knowledgeable health care providers should be available at ante natal centres to support the mother – to- be with strategies to help them achieve the most balanced diets in order to ensure the health of both mother and child.

The Ministry of Health should mount up an intensive campaign against food cravings during pregnancy since it interferes with the dietary intake of the pregnant woman and sometimes causing serious problems.

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