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Knowledge and practice of healthy nutrition among pregnant women attending antenatal clinic at selected private hospitals in Benin City

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The health of a pregnant mother and her nutritional status can influence the health and survival of the growing foetus because of the biological link between her and her child. This study was conducted to assess the knowledge and practice of healthy nutrition among pregnant women attending selected private hospital, Benin City. Descriptive cross-sectional research design was used for the study. Two hundred and twenty two (222) women were selected using convenient sampling technique. Self structured questionnaire served as instrument of the study. Reliability was ensured using test retest and alpha value of 0.87. Data were analyzed using descriptive statistics; hypothess were tested using logistic regression and t-test at 5% level of significance. Result show that 159 (76.8%) of the respondents have good knowledge of healthy nutrition, 28 (13.5%) of the respondents have a fair knowledge of healthy nutrition, while only 20 (9.7%) have poor knowledge of healthy nutrition. Also 82 (39.6%), have a good practice of healthy nutrition, 69 (33.3%) fairly practice healthy nutrition, while 69 (27.1%) poorly practice healthy nutrition. Factors influencing poor practices include ignorance 45(36.6%), forgetfulness 44(35.8%), and husband's attitude 29(23.6%). Majority 79(38.2%) of the respondents avoided certain foods because they don't just like them. logistic regression shows a statistically significant relationship (p=0.000 OR -0.567, 0.002 OR -0.241 and 0.000 OR 0.417) with the tribe, state of origin and educational level of the husband and the practice of healthy nutrition. Health talk should be encouraged on each antenatal day and nurses should put more emphasis on healthy nutrition. Government should provide public awareness for girl child education as illiteracy is a major factor that affects dietary practice during pregnancy and acceptance to practice which will help reduce the rate of intrauterine fetal death, low birth weight (LBW) and maternal mortality

Key words: Knowledge, practice, healthy nutrition, pregnant women.

INTRODUCTION

Pregnancy is considered to be a pleasurable experience for the pregnant women. Evidences have shown that

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adequate intake of nutrition is an important component for individual's health and well-being, especially during pregnancy. It is well documented that inadequate maternal nutrition results in increased risks of short term consequences such as; Intra Uterine Growth Restriction (IUGR), low birth weight, preterm birth, prenatal and infant mortality and morbidity (Rocco et al., 2005). Moreover, excessive intake of nutrients during pregnancy can lead to some pregnancy complications (such as, preeclampsia and gestational diabetes, macrosomia, distocia and higher prevalence of caesarean section) (Rocco et al., 2005).

Eating well during pregnancy means do more than simply increase how much the mother eats. The mother must also consider what she eats. The ability of mother to provide nutrients and oxygen for her baby is a critical factor for fetal health and its survival. Failure in supplying the adequate amount of nutrients to meet fetal demand can lead to fetal malnutrition. The fetus responds and adapts to under nutrition but by doing so it permanently alters the structure and function of the body (Mitram et al., 2012). Adequate nutritional intake during pregnancy has been recognized as an important factor for healthy pregnancy and desired birth outcomes (Bawadi et al., 2010). It was found that deficiency of nutrients during gestation may cause the fetus to receive suboptimal micro and macro nutrients; causing inadequate intrauterine growth and development, inherited malformations, preterm deliveries, and pregnancy complication. Eating well during pregnancy means do more than simply increase how much the mother eats. The mother must also consider what she eats. The ability of mother to provide nutrients and oxygen for her baby is a critical factor for foetal health and its survival and failure in supplying the adequate amount of nutrients to meet foetal demand can lead to foetal malnutrition (Daba et al., 2013).

Knowledge of healthy nutrition is very important in determining the extent at which individuals will indulge in health behaviour increasing pregnant women's knowledge of nutrition will have a great impact on their health and of the growing fetus. According to Nagi et al. (2016) in India reported that 40.1% of their respondents are aware of healthy nutrition, 45.5% pregnant patients were aware of the meaning of food and the importance of food (balanced (47%), and healthy diet (43.9%), 59.9% had adequate knowledge regarding requirement of food for proper functioning of the body and as well as for fighting infections (67.2%). Tenaw et al. (2018) in Ethiopia revealed that of the 322 pregnant women surveyed, 87(27%), 156(48.4%) and 111(34.5%) of them had knowledge, favourable attitude, and good practices of nutrition during pregnancy, respectively. Positive significant association between educational status of women (AOR=3.047, 95%CI (1.046 to 8.873)), family income (AOR=3.093, 95%CI (1.076 to 8.890)), attitude (AOR = 4.4, 95%CI (2.315 to 8.299)), number of pregnancies (AOR=2.175, 95%CI (1.034 to 4.573)) and nutrition knowledge during pregnancy was found. Similarly, Ehwarieme et al., (2017) in Benin City Edo State reported that 159 (58.5%) of their respondents had good knowledge of nutrition while 113 (41.5%) had poor knowledge about nutrition. Fasola et al, (2018) in Lagos show that excellent knowledge and good attitude towards good nutrition was observed among 61.89 and 86.89%, respectively. Furthermore, Kever et al. (2015) in Iran results showed that knowledge in 33.3% of pregnant women was poor, 64.2% moderate and 2.5% good. The attitude of most people (98.2%) was positive towards proper nutrition during pregnancy. The practice of 70% of people was moderate about nutrition during pregnancy. However, Dana et al. (2018) in Lebanon reveals that fifty-six percent of the studied population was not knowledgeable about maternal nutrition during pregnancy, twenty-five percent had a negative attitude toward antenatal care (ANC) services and nutrition during pregnancy and forty-seven percent of the participants were having bad dietary practices during pregnancy.

Reported attitude to practice of healthy nutrition by Kever et al. (2015) in Bornu State Nigeria, shows that majority of the respondents 63.27% had positive attitude towards dietary intake during pregnancy which was demonstrated by a qualitative and quantitative increase in their dietary intake, as only 36.73% do not increase their dietary intake during pregnancy. Olajide et al. (2018) in Ibadan Nigeria also reported that majority (75%) of the pregnant women had moderate knowledge level concerning dietary practice during pregnancy. They found no significant relationship between participants knowledge regarding dietary intake and dietary practice (p= 0.200). There is no significant relationship between participants level of education and dietary practice (p= 0.077), however, there is significant relationship between monthly income and dietary practice (p= 0.001).

Reasons for poor nutritional practices were related to culture, environment, income and accessibility to food. Also some complication of pregnancy like pica was also seen as a complication. (Kever et al., 2015). Lack of access to adequate diet has been identified as one of the severe problems among poor populations especially in countries where resources are limited and results in various forms of nutritional problems (Ekesa et al., 2011).

Socio-economic factors also have their effect on nutrition; a study among Japanese pregnant women found that individuals with a higher socio economic position were found to consume diets that were considered to be of a higher quality than those with lower socio economic position (Murakami et al., 2009).

According to UNICEF (2013), each year, more than a million women die from causes related to pregnancy and childbirth. Nearly 4 million newborns die within 28 days of birth (UNICEF, 2013). Many of the 200 million women who become pregnant each year, most of them in developing countries, suffer from ongoing nutritional

deficiencies (Latifa et al., 2012), repeated infections (Wu et al., 2004) and the long term cumulative consequences of under nutrition during their own childhood (Mora and Nestel, 2010). Although, researches focused on maternal health are common, there are dearths of empirical study on maternal nutrition during pregnancy especially in Benin City, Edo state. Hence the researchers aim to assess knowledge and practice of healthy nutrition among pregnant women in selected private hospital in Edo state.

Objective of the study

1. To assess the knowledge of pregnant mothers on maternal nutrition;
2. To determine how well they practice healthy nutrition;
3. To identify the factors influencing adequate nutrition during pregnancy.

MATERIALS AND METHODS

Design

A descriptive cross-sectional research design was used.

Setting

The research was carried in St. Philomena hospital and Faith Mediplex both are major private hospitals in Benin City own by faith based organization.

Target population

Target populations are all pregnant women attending antenatal clinic in the selected private hospitals. An average of six monthly attendance show it is 412 (antennal records**)**. The exclusion criteria are pregnant women who did not register in the selected facility pregnant women who at the time of the study are in their last week of their EDD.

Sample size

A sample size of 222 was obtained using Taro Yamane formula.

$$n = \frac{N}{1 + N(\mathrm{d})^2}$$

When n = sample size; N= population size; d = level of precision (assumed to be 0.05 at 95% confidence interval); N = 412. Thus:

$n = 412/1 + 412\ (0.05)^2$
$n = 412/1 + 412\ (0.0025)$
$n = 412/1 + 1.03$
$n = \underline{412}$
$2.03 = 202$
$n = 222$

10% attrition rate = 20.2
202 + 20.2 = 222.2

Sampling technique

Convenience sampling technique was used to select the respondents in the study.

Instrument

The instrument used was a self-structured questionnaire which consisted of 4 sections; Section A contains the demographic respondents. Section B contains 10 items questions on maternal nutrition. The knowledge score will be graded using cumulative percentage score as poor (0-30%), fair (31-69%) and good (71-100%). Section C contains 9 items questions on practice of healthy nutrition which will be graded using cumulative percentage score as poor practice (0-30%), fair (31-69%) and good (71-100%). Section D contains factors affecting practice.

Validity and reliability

Validity of instrument was done by experts in nutrition and measurement and evaluation using face and content validity. Reliability of the instrument was ensured using test retest method and alpha value of 0.87 was gotten.

Method of data collection

Data was collected with the help of two (2) research assistants over a period of 4 weeks; two weeks dedicated to each hospital. Data were collected on Mondays, Tuesdays and Thursdays from the period of 9 am to 12 pm in both hospitals.

Data analysis

Data were analyzed using descriptive statistics and multiple logistic regressions.

Ethical consideration

Ethical clearance was given by the management of the selected hospital and informed consent was taken from the respondents.

RESULTS

Demographic data of respondents

Table 1 shows the demographic data of respondents. Majority 71(34.3%) of the respondents are in the age range of 25 to 30 years, while only 12(5.8%) of the respondents are in the age range of 15 to 19 years. Majority 176(85.0%) of the respondents are Christians while the remaining 31(15.0%) are Muslims. 77(37.2%) of the respondents are Bini's, 33(15.9%) of the respondents are Igbo's, 23(11.1%) of the respondents are Yoruba's. Majority, 128(61.8%) of the respondents are indigenes of

Table 1. Demographic data of respondents.

Variable	Attribute (year)	Frequency	Percentage (%)
Age	15 - 19	12	5.8
	20 - 24	53	25.6
	25 - 30	71	34.3
	≥30	71	34.3
Religion	Christian	176	85.0
	Muslim	31	15.0
	Others	0	0.0
Tribe	Benin	77	37.2
	Esan	28	13.5
	Igbo	33	15.9
	Yoruba	23	11.1
	Etsako	14	6.8
	Others	32	15.5
State	Edo	128	61.8
	Delta	29	14.0
	Ondo	14	6.8
	Others	36	17.4
Head of household	Woman	40	20.2
	Man/Husband	158	79.8
Educational level of husband	Illiterate	15	8.2
	Primary	13	7.1
	Secondary	57	31.3
	Tertiary	97	53.3
Educational level of wife	Illiterate	22	11.8
	Primary	25	13.4
	Secondary	53	28.3
	Tertiary	87	46.5
Marital status	Married	179	89.9
	Single	20	10.1
Family type	Polygamy	41	23.6
	Monogamy	130	74.7
	Polyandry	3	1.7
Number of children	0 - 4	139	73.9
	5 - 6	41	21.8
	7 - 10	7	3.7
	10 and above	1	0.5

Edo State. For the educational level of husband, majority of the respondents 97(53.3%) have tertiary education, followed by 57(31.3%) of the respondents who have secondary education, 13(7.1%) of the respondents have

primary education while the remaining 15(8.2%) of the respondent are illiterates. On the educational level of wife, majority of the respondents 87(46.5%) have tertiary education, followed by 53(28.3%) of the respondents who have secondary education, 25(13.4%) of the respondents have primary education while the remaining 22(11.8%) of the respondents are illiterate. 179(89.9%) of the respondents are married while the remaining 20(10.1%) of the respondents are single. On the number of children of respondents, majority 139(73.9%) of the respondents have children within the children number range of 0 to 4, 41(21.8%) of the respondents have children within the children number range of 5 to 6, 7(3.7%) of the respondents have children within the children number range of 7 to 10 while the minority 1(0.5%) of the respondents have children within the children number range of 10 and above.

Knowledge of healthy nutrition among pregnant women

Table 2 shows that 114 (55.1%) of the respondents know the meaning of healthy diet to be adequate consumption of all classes of food, 76(36.7%) said eating good food, 159(76.8%) knows that food pattern changes during pregnancy while 48(23.2%) says they don't know; 172(83.1%) knows about healthy diet during pregnancy, 190(91.8%) agrees that there is need to improve diet during pregnancy, 133(64.3%) knows that maternal nutrition can cause low birth weight and still birth while 74(33.8%) did not know. Similarly 166(80.2%) knows that maternal food intake can affect pregnancy outcome while 41(19.8%) did not know. 188(90.8%) were able to identify the complete food group, while 19(9.2%) were not able to identify them. Also 147(71.0%) know that food containing protein, vitamin, carbohydrate and minerals are very important during pregnancy. Generally 159 (76.8%) of the respondents have good knowledge of healthy nutrition, 28(13.5%) of the respondents have a fair knowledge of healthy nutrition, while only 20 (9.7%) have poor knowledge of healthy nutrition.

Practice of healthy nutrition among pregnant women

Table 3 reveals that 167(80.7%) says that they improve on their diet during the pregnancy; 95(45%) says they eat adequate diet anytime it is available; 58(28%) says they eat adequate diet thrice a day; 26(12.6%) says they eat it twice daily, while 20(9.7%) say it is once daily. Also 135(65.2%) says they eat fruits always, 15(7.2%) weekly, 10(4.8) twice a week and 37(17.9%) occasionally. Furthermore 151(72.9%) said they eat meat and fish always, 20(9.7) twice weekly. Only 82(39.6%) said they don't avoid any food during pregnancy while 125(60.4%) said they avoid some foods during. Among the food they avoid include beans (4.8%), fatty food (4.8%), snail (2.9%) and sweet things (21.7%). Generally 82(39.6%) have good practice of healthy nutrition, 69 (33.3%) fairly practice healthy nutrition, while 69 (27.1%) poorly practice healthy nutrition.

Factors influencing nutrition of pregnant women

Table 4 shows hindrance to respondent's healthy diet during pregnancy. 45(36.6%) of the respondents said ignorance was their hindrance to a healthy diet during pregnancy, 44(35.8%) of the respondents said forgetfulness was their hindrance to a healthy diet during pregnancy, 29(23.6%) of the respondents said their husband's attitude was their hindrance to a healthy diet during pregnancy, and 28(22.8%) of the respondents said poverty was their hindrance to a healthy diet. Majority 79(38.2%) of the respondents avoided certain foods because they don't just like them, 27(13.0%) of the respondents avoided certain food during pregnancy because of their cultural belief, 16(7.7%) of the respondent avoided certain food during pregnancy because they didn't know any better; that is, ignorance, 81(39.1%) of the respondents who avoided certain during pregnancy gave no reason why they avoided these food. For majority, 110(53.1%) of the respondents, the health education they received during antenatal contributed to their diet practice, for this 31(15.0%) of the respondents their good socioeconomic status was what contributed to their diet practice, for this 16(7.7%) of the respondents their environment was what contributed to their diet practice.

General logistic regression showing relationship between socio-demographic characteristics of the respondents and practice of healthy nutrition amongst pregnant women in selected hospitals

Table 5 shows the relationship between socio-demographic characteristics of respondents and the practice of healthy nutrition among pregnant women attending antenatal clinic in selected hospitals in Benin City. The logistic regression shows a statistically significant relationship (p=0.000 OR -0.567, 0.002 OR -0.241 and 0.000 OR 0.417) with the tribe, state of origin and educational level of the husband and the practice of healthy nutrition by respondents attending antenatal clinic in the selected hospitals in Benin City, while other characteristics like age (p=0.221; >0.05), head of household (p=0.947>0.005), educational level of wife (p=0.200; >0.005), family type (p=0.0.067; >0.005) and number of children (p=0.430; >0.005) had no statistically significant relationship with the practice of healthy nutrition among pregnant women attending antenatal clinic in the selected hospitals in Benin City.

Table 2. Knowledge on maternal nutrition.

Parameter	Frequency	Percent
Meaning of nutrient/diet		
\Eating good food	76	36.7
Adequate consumption of all classes of food	114	55.1
Eating plenty food	9	4.3
Eating anything I like	3	1.4
No response	5	2.4
Total	207	100
Does food pattern change during pregnancy		
Yes	159	76.8
No	30	14.5
I don't know	18	8.7
Total	207	100
Do you know about healthy diet during pregnancy		
Yes	172	83.1
No	19	9.2
I don't know	16	7.7
Total	207	100
Do you need to improve diet during pregnancy		
Yes	190	91.8
No	1	0.5
I don't know	16	7.7
Total	207	100
Can maternal nutrition cause low birth weight and still birth		
Yes	133	64.3
No	18	8.7
I don't know	56	27.1
Total	207	100
Do food intake affect pregnancy outcomes		
Yes	166	80.2
No	30	14.5
I don't know	11	5.3
Total	207	100
Food groups		
The following are the complete food group; carbohydrate, vitamin, mineral, protein, vegetable, fat and oil, water		
Yes	188	90.8
No	19	9.2
Total	2017	100
Total	207	100
How did you get to know about it?		
Friends/relatives	41	22.3
Medical personnel’s	139	75.5
Media/TV	24	13.0
Billboards/posters	8	4.3
In Church	19	10.3

Table 2. Contd.

Why do you improve diet during pregnancy			
Baby		161	81.3
Stress		12	6.1
Tradition		8	4.0
during delivery		54	27.3
To look good		37	18.7
Which of these foods are most important during pregnancy			
Protein, carbohydrate, vitamins, minerals		147	71.0
Fat and oil, pounded yam		20	9.6
Minerals, vitamin, fats and oil		40	19.3
Total		207	100
Knowledge	**Correlative performance (% score)**	**Frequency**	**Percentage**
Poor	≤30	20	9.7
Fair	31 - 69	28	13.5
Good	≥70	159	76.8
Total		207	100

Table 3. Practice of healthy nutrition among pregnant women.

Parameter	Frequency	Percent
Did you improve your diet during pregnancy		
Yes	167	80.7
No	23	11.1
I don't know	17	8.2
Total	207	100
How many times do you eat adequate diet daily during pregnancy		
Daily	20	9.7
Twice daily	26	12.6
Thrice daily	58	28
Anytime it is available	96	45
No response	10	4.8
Total	207	100
How often do you eat fruits and vegetables		
Always	135	65.2
Weekly	15	7.2
Twice a week	10	4.8
Don't like it	2	1
Occasionally	37	17.9
No response	8	3.9
Total	207	100
How often do you eat meat and fish		
Always	151	72.9
Weekly	17	8.2
Twice weekly	20	9.7
Occasionally	11	5.3
No response	8	3.9
Total	207	100

Table 3. Contd.

Do you avoid some food during pregnancy		
Yes	125	60.4
No	82	39.6
Total	207	100
What food do you avoid?		
None	106	51.2
Beans	10	4.8
Fatty foods	10	4.8
Heavy foods	10	4.8
Garri	6	2.9
Snail	6	2.9
Yam	6	2.9
Rice	4	1.9
Sweet things	4	1.9
Others	45	21.7
Total	207	100
Which of these do you prefer		
Snacking	26	12.6
Cooking to eat	142	68.6
No response	39	18.8
Total	207	100
Which do you do most?		
Snacking	12	5.8
Cooked food	96	46.4
Both	65	31.4
No response	34	16.4
Total	207	100
If yes, why?		
Too tired to cook	18	8.7
Easy access to snacks	24	11.6
Better taste	114	55.1
No response	51	24.6
Total	207	100

Practice	**Correlative performance (% score)**	**Frequency**	**Percentage**
Poor	≤30	56	27.1
Fair	31- 69	69	33.3
Good	≥70	82	39.6
Total		207	100

Relationship between knowledge on maternal nutrition and practice of healthy nutrition amongst pregnant women attending antenatal clinic in selected hospitals

Table 6 shows that there is a statistically significant ($p<0.000$) relationship between the knowledge on maternal nutrition and practice of healthy nutrition among pregnant women attending antenatal clinic in selected hospitals in Benin City.

Difference in the knowledge of healthy nutrition and practice of healthy nutrition among respondents in selected hospitals

Table 7 shows that there is no statistically significant difference ($p=0.951$) in the knowledge of healthy nutrition

Table 4. Factors influencing nutrition of pregnant women.

Parameter	Frequency	Percentage
Hindrance to healthy nutrition		
Poverty	28	22.8
Illiteracy	6	4.9
Husband's attitude	29	23.6
Forgetfulness	44	35.8
Ignorance	45	36.6
Why do you avoid these food during pregnancy		
Cultural belief	27	13
Ignorance	16	7.7
Religion	4	1.9
I don't like them	79	38.2
No response	81	39.1
Total	207	100
What do you think is contributing to your diet practice		
Illiteracy	15	7.2
Good socioeconomic status	31	15
Health education during antenatal	110	53.1
Culture	11	5.3
Environment	16	7.7
No response	24	11.6
Total	207	100

Table 5. General logistic regression showing relationship between socio-demographic characteristics of the respondents and practice of healthy nutrition amongst pregnant women in selected hospitals.

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	95.0% Confidence interval for B	
	B	Std. error	Beta			Lower bound	Upper bound
(Constant)	1.914	.138		13.898	.000	1.642	2.186
Age	.088	.072	.109	1.229	.221	-.054	.231
Tribe	-.567	.052	-1.081	-10.983	.000	-.668	-.465
State	-.241	.075	-.244	-3.209	.002	-.390	-.093
Head of household	.013	.194	.008	.066	.947	-.369	.395
Educational level of husband	.417	.064	.554	6.529	.000	.291	.544
Educational level of wife	-.094	.073	-.140	-1.288	.200	-.239	.050
Family type	.314	.170	.203	1.846	.067	-.022	.650
Number of children	.100	.126	.057	.791	.430	-.149	.348

Table 6. Relationship between knowledge on maternal nutrition and practice of healthy nutrition amongst pregnant women attending antenatal clinic in selected hospitals.

		Knowledge			Total	χ^2 / p-value
		Poor	Fair	Good		
Practice	Poor	20 (35.7)	28 (50.0)	8 (14.3)	56	168.501 / 0.000
	Fair	0 (0.0)	0 (0.0)	69 (100)	69	
	Good	0 (0.0)	0 (0.0)	82 (100)	82	

Table 7. Difference in the knowledge of healthy nutrition and practice of healthy nutrition among respondents in selected hospitals.

	Hospital	N	Mean	Std. deviation	Std. error mean	F	Sig.
Knowledge	St. Philomena Hospital	104	2.67	0.645	0.063	0.004	0.951
	Faith Mediplex	103	2.67	0.648	0.064		
Practice	St. Philomena Hospital	104	2.13	0.809	0.079	0.010	0.921
	Faith Mediplex	103	2.13	0.813	0.080		

among respondents attending antenatal clinic in selected hospitals in Benin City. Also, there was no statistically significant difference (p=0.921) in the practice of healthy nutrition among respondents attending antenatal clinic in selected hospitals in Benin City. This therefore shows that there is no significant difference in the knowledge of healthy nutrition and practices of healthy nutrition among the respondents in the selected hospitals in Benin City.

DISCUSSION

Findings from the study show that 159(76.8%) of the respondents have good knowledge of healthy nutrition, 28(13.5%) of the respondents have a fair knowledge of healthy nutrition, while only 20 (9.7%) have poor knowledge of healthy nutrition. Majority of the pregnant women revealed that adequate consumption of all classes of food can be used to define healthy nutrition. The level of nutrition in this study was higher than that reported by Ehwarieme et al., (2017) among rural dweller in Ebvwotubu Edo State where 159 (58.5%) of their respondents had good knowledge of nutrition and Nagi et al. (2016) in India who reported that 59.9% had adequate knowledge regarding requirement of food for proper functioning of the body, as well as for fighting infections (67.2%). Finding of Kever et al. (2015), in Iran support the findings of this study as 64.2% of the respondents had good adequate knowledge of nutrition during pregnancy. In contrast to the present study was that of Tenaw et al. (2018) in Ethiopia who reported very low level of knowledge of nutrition during pregnancy (27%) among pregnant women with 156(48.4%) favourable attitude toward health nutrition. This sharp difference could be attributed to the fact that the Ethiopian study was done in the public hospitals as against private hospitals in the present study. Patients patronizing private hospital in Nigeria are mostly educated with high socio-economic status and as reported in this study many of the respondents and their husband had tertiary education. This might have influence the high level of knowledge recorded.

Findings from the study show that 82 (39.6%) have a good practice of healthy nutrition, 69 (33.3%) fairly practice healthy nutrition, while 69 (27.1%) poorly practice healthy nutrition. Supporting the findings of this study is Tenaw (2018) in Ethiopia who reported that 111(34.5%) had good practices of nutrition during pregnancy. Similar finding was also reported by Dana et al. (2018) in Labanon were 25% had a negative attitude toward antenatal care (ANC) services and nutrition during pregnancy and 47% of the participants were having bad dietary practices during pregnancy. However, Kever et al. (2015) in Iran results differs from this study as that attitude of most people (98.2%) was positive towards proper nutrition during pregnancy and the practice of 70% of people was moderate about nutrition during pregnancy. Kever et al. (2015) in Bornu, Nigeria also reported a higher number (63.27%) of the respondents have positive attitude towards practices of health nutrition. Similar finding was reported by Fasola et al. (2018) in Lagos, as excellent knowledge and good attitude towards good nutrition practice was observed among 61.89 and 86.89%, respectively.

Findings from the study showed that cultural beliefs, poor socioeconomic background and attitudes of the husbands were top most on the list of factors that impede good dietary practice of the respondents during pregnancy. These findings were partly in agreement with that of Gibbons et al. (2011) in Canada and Yassin and Lubbad (2010) in Alexandria who asserted that, respondents were not able to take adequate diet in pregnancy because of ethno cultural believe and low-socio economic status of the respondents and their families. However on the contrary was the findings of Musaiger (2006) in his study on Socio-Cultural and Economic Factors Affecting Food Consumption Pattern in the Arab Countries where he discovered that the respondents practiced good dietary intake during pregnancy because of their socio-economic status. This may possibly be owing to the fact that the respondents and their families were financially buoyant, and as such can afford to purchase the food stuff from the market despite the financial cost. Top on the list among the factors that support adequate intake of dietary regimen by the respondents during pregnancy is regular antenatal visit and good socio-economic status. This may be sequel to the fact that the respondents usually attend antenatal clinics and listens to the health education delivered by nurses during their visit.

Findings from that study shows a statistically significant relationship ($p< 0.001$ OR -0.567, $p = 0.002$ OR -0.241

and p< 0.001 OR 0.417) with the tribe, state of origin,educational level of the husband and the practice of healthy nutrition by respondents, while other characteristics like age (p=0.221; >0.05), head of household (p=0.947>0.005), educational level of wife (p=0.200;>0.005), family type(p=0.0.067;>0.005) and number of children (p=0.430>0.005) had no statistically significant relationship with the practice of healthy nutrition among pregnant women. However, studies have reported maternal factors like age, marital status, education level, parity, gestation age, acculturation to have influenced the dietary pattern of pregnant women, with women with higher educational status having changes in their diet, as higher education was found to be associated with favorable dietary intake patterns such as a higher intake of protein and other micronutrients such as iron; vitamins A, D, E, and C and folate (Olajide et al., 2018; Murakami et al., 2009; Mejean, 2010)

Tenaw et al. (2018) in Ethiopia also found a positive significant association between educational status of women (AOR=3.047, 95%CI (1.046 to 8.873)), family income (AOR=3.093, 95%CI (1.076 to 8.890)), attitude (AOR=4.4, 95%CI (2.315 to 8.299)), number of pregnancies (AOR=2.175, 95%CI (1.034 to 4.573)) and nutrition knowledge during pregnancy. Whereas knowledge, family income, husband education and occupation had a positive association with good practices of nutrition during pregnancy. As members of health team nurses and doctors are in better position to bring awareness to pregnant women on the importance of healthy eating during pregnancy. Although it is the tradition of nurses and midwives to give health talk to pregnant women attending antenatal clinic but it is very important to put more emphasis on dietary practice during pregnancy.

Conclusion

The findings showed that most of the women attending antenatal clinical in the selected private hospital have good knowledge of healthy nutrition, however the practice was found to be low. It was also discovered that many factors affects the practice of healthy nutrition such as forgetfulness, husband's attitude, illiteracy as well as cultural belief among pregnant women attending the antenatal clinic. Health talk should be encouraged on each antenatal day and nurses should put more emphasis on healthy nutrition. Government should provide public awareness for girl child education as illiteracy is a major factor that affects dietary practice during pregnancy and acceptance to practice which will help reduce the rate of intrauterine fetal death, low birth weight (LBW) and maternal mortality.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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