

Original Article

Study on the dietary habits of women in antenatal period in rural area of Bangladesh

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Abstract:

This descriptive type of cross-sectional study was conducted at Gazipur, Bangladesh to assess the dietary habits of women in antenatal period in rural area of Bangladesh. A sample of 160 respondents was selected purposively and a semi structured questionnaire was used to collect data by face to face interviews. Data were tabulated, checked and finalized manually and analyzed in Microsoft Word & Excel. The studies revealed that, majority of the respondents 60 (37.5%) were within the age group of 15-24 years. The mean age of the respondents was 29 years. Their monthly family income was more than 10000 taka. Regarding duration of pregnancy, majority of the respondents 155 (96.875%) were full term pregnant and among them, 110 (68.75%) took their meal with family members. Majority of the respondents 87 (54.375%) used to eat 3 times daily during their antenatal period. Most of them 147 (91.88%) took rice followed by vegetables 114 (71.25%) daily. Most of them 95 (59.375%) discarded rice ban during cooking. Majority of the respondents 101 (63.125%) used to wash vegetables after cutting, more than half of them 90 (56.25%) took advice from health center during antenatal period. Most of them were advised to take nutritious food and eat frequently. So counseling programs may be taken to counsel the women about dietary habits during antenatal period and government should be more concerned about this.

Keywords: Dietary habits, Antenatal period.

Introduction:

Antenatal care is the care of the women during pregnancy. The primary aim of antenatal care is to achieve at the end of a pregnancy – a healthy mother and healthy baby.¹ Increased nutrient requirements protect maternal health while others affects birth outcome and infant health. Inadequate weight gain during pregnancy often results in low birth weight, which increases infant's risk of dying. Pregnant women also require more protein, iron, iodine, vitamin, folate and other nutrients. Deficiencies of certain nutrients are associated with maternal complications and death, fetal and newborn death, birth defects and decreased physical and mental potential of child.²

Maternal body undergoes a lot of anatomical and physiological changes in adaptation of increasing demand of the growing fetus. Thus, they require a balanced proportion development of the fetus.³ The pregnancy diet ideally should be light, nutritious, easily digestible and rich in protein, minerals and vitamins. The diet should consist in addition to the principal food at least half liter of milk, plenty of green vegetables and fruit. At least, half of the

total protein should be containing all the amino acids and majority of the fat should be animal origin which contains vitamin A and D.¹

Dietary habits during antenatal period should be directed towards promoting the health and well-being of the mothers as well as of their growing fetuses. Most of the women in our country are illiterate and are not well conversant about antenatal and postnatal care which leads to maternal and child morbidity and mortality. From the very beginning of pregnancy, the prevalent customs and beliefs are given importance in our society instead of providing them with satisfactory healthcare.⁴ Energy requirements increase in pregnancy by about 12 percent. This is because of the increase in maternal body weight, an average 10-15 percent increase in basal metabolic rate (BMR) and the energy costs of the growing fetus and maternal physiological changes in pregnancy.⁵

Materials and methods:

This descriptive type of cross-sectional study was conducted at Gazipur, Bangladesh from 1st November 2014

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to 3rd November 2014 to determine the dietary habits of women during antenatal period with a sample size of 160 Women of reproductive age having at least one child. A pre-tested semi structured questionnaire was used and data were collected by face to face interview using purposive sampling technique. After collection, data were checked and verified for any inconsistency and presented in graphs and tables.

Results:

This descriptive type of cross-sectional study was conducted at Gazipur, Bangladesh from November 1st 2014 to November 3rd 2014 to determine the dietary habits of women during antenatal period. A sample of 160 women of reproductive age having at least one child was selected purposively. Most of the respondents were within the age group of 15-24 years 60(37.5%) and 25-34 years 60(37.5%). The mean age of the respondents was 29.62 years. Majority of the respondents were Muslim 146(91.25%) followed by Hindu 14(8.75%). Most of the respondents(50,31.25%) had secondary level of education. Most of the respondents' husbands were illiterate 40(25%) followed by secondary level of education 35(21.87%). Most of the respondents were housewives 123(76.87%) followed by garments workers 29(18.12%). Most of the respondents' husbands had other occupations 51(37.87%) followed by garments workers 44(27.5%) and service holder 39 (24.375%). Majority of the respondents 84(52.5%) had monthly family income more than 10,000 Taka. The median monthly family income was Taka 10238 ranging from Taka >10,000. Most of them 90(56.25%) had ≤4 family members. Most of the respondents 118(73.75%) were nuclear family.

Majority of the respondents 155(96.87%) were 9 month pregnant. Majority of the respondents 80(50%) did light work followed by 55 (34.37%) heavy work during their antenatal period. Most of the respondents 157(98.12%) took rice followed by vegetables 154(96.25%) then fish 144(90%) and meat 138(89.38%) during their antenatal period. Most of them 147(91.88%) took rice followed by vegetables 114(71.25%) on daily basis and then meat 117(73.13%) followed by fish 77(48.13%) took 1-3 days. Majority of the respondents 87(54.35%) ate 3 times followed by 58 (36.25%) ate >4 times during their antenatal period. Most of them 95(59.37%) discarded rice bran during cooking, only 65(40.62%) did not. Most of the respondents 101(63.12%) used to wash vegetables after cutting and 59 (36.87%) used to wash before cutting vegetables. Most of the respondents 110(68.75) took

their meal with family members followed by 21(13.12%) took meal last of all and 16(10.62%) took meal after husband and children. Most of the respondents 90 (56.25%) took advice and only 70 (43.75%) took no advice from a health center during antenatal period. Most of them 88(55%) took advice about taking nutritious food followed by 43(26.87%) about eating frequently.

Table 1: Distribution of the respondents by socio-demographic characteristics (n=160)

Characteristics	Categories	Respondent	
		No	Percent
Age of the respondents	15-24	60	37.50
	25-34	60	37.50
	35-44	22	13.75
	45-54	14	8.75
	>55	04	2.50
Mean age 29.62 years			
Educational level of respondents	Illiterate	38	23.75
	Primary	44	27.50
	Secondary	50	31.25
	SSC	17	10.60
	HSC	10	6.25
	Graduate	01	0.62
Husband's educational level	Illiterate	40	25.00
	Primary	31	19.37
	Secondary	35	21.87
	SSC	21	13.12
	HSC	23	14.37
	Graduate	08	5.00
Husbands occupation	Madrasa	02	1.25
	Rickshaw puller	08	5.00
	Garments worker	44	27.50
	Laborer	18	11.25
	Service holder	39	24.37
No. of family members	Others (dorji, cloth business, decorator)	51	31.87
	≤ 4	90	56.25
	5-9	64	40.00
	≥ 10	06	03.75

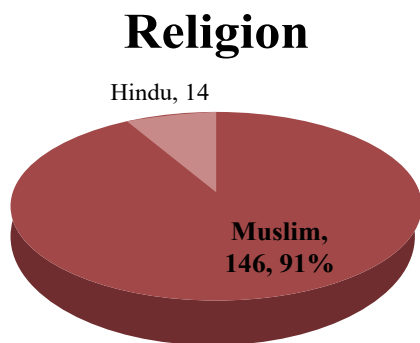


Fig 1 Distribution of respondents according to religion (n=160)

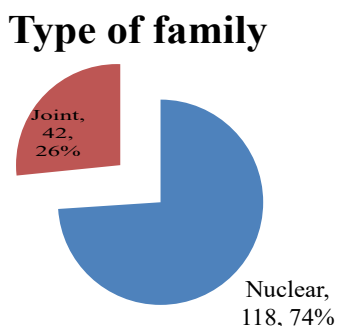


Fig 2 Distribution of respondents according to family type (n=160)

Table 2: Distribution of the respondents by their antenatal period and dietary pattern during that period (n=160)

Characteristics	Categories	Respondent	
		No	Percent
Duration of pregnancy (months)	7	01	0.62
	8	04	2.50
	9	155	96.88
Nature of working	Light	80	50.00
	Moderate	25	15.62
	Heavy	55	34.37
Type of food intake during antenatal period (multiple answer)	Rice	157	98.12
	Meat	138	89.38
	Fish	144	90.00
	Bread	68	42.50
	Vegetable	154	96.25

Median monthly family income Taka 10,238

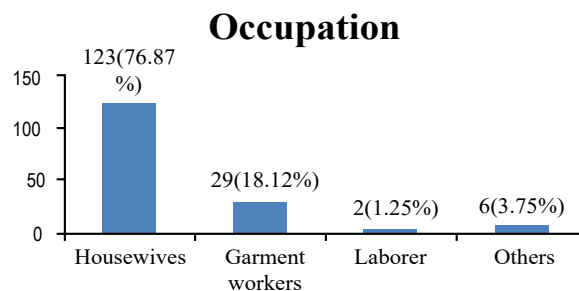


Fig 3: Distribution of respondents according to occupation

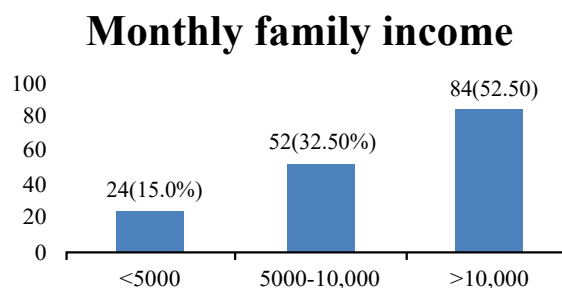


Fig 4: Distribution of respondents according to monthly family income (n=160)

Table 3: Distribution of respondents by their food intake pattern (n=160)

Type of food intake	Did not take at all		1-3 days		4-6 days		Daily (7days)	
	No.	%	No.	%	No.	%	No.	%
Rice	2	1.25	5	3.13	6	3.75	147	91.88
Fish	12	7.5	77	48.13	22	13.75	49	30.63
Meat	22	13.75	117	73.13	14	8.75	7	4.38
Pulse	16	10	51	31.88	22	13.75	71	43.13
Egg	16	10	49	30.63	30	18.75	64	40
Milk	20	12.5	50	31.25	17	10.63	73	45.63
Vegetable	3	1.88	22	13.75	21	13.13	114	71.25
Fruits	30	18.75	64	40	23	14.38	43	26.88

Table 4- Distribution of the respondents according to dietary habit (n=160)

Characteristics	Categories	Respondent	
		No	Percent
Frequency of food intake daily	1 time	1	0.62
	2 time	14	8.75
	3 time	87	54.37
	>3 time	54	36.25
Whether Rice bran is discarded	Yes	95	59.37
	No	65	40.62

Washing vegetables for cooking	Before cutting	59	36.87
	After cutting	101	63.13
Time of taking meal	With family members	110	68.75
	Lonely	13	8.13
	Last of all	21	13.12
	After husband and children	16	10.00

Table 5: Distribution of the respondents according to dietary advice (n=160)

Took advice about diet	Yes	90	56.25
	No	70	43.75
Types of Advice (multiple responses)	To eat frequently	43	26.87
	To take more food	22	13.75
	To take nutritious food	88	55.00

Discussion:

This descriptive type of cross-sectional study was conducted among 160 respondents residing in rural areas of Shafipur upazilla of Gazipur district, Bangladesh from November 1st 2014 to November 3rd 2014 to determine the dietary habits of women during antenatal period. Data were collected purposively by face to face interview using a pre-tested semi-structured questionnaire. The study revealed that the mean age of the respondents was 29.62 years. Majority of the respondents 37.5% were in 15-24 age groups. In a study in the South West region of Bangladesh similar findings was observed, where the majority of the women belong to 20-24 years age group.¹ In the current study, most of the respondents (91.25%) were Muslim followed by Hindu 8.75%. Majority of the respondents 31.25% had completed secondary level of education. Another study shows that, mothers in the rural and urban region of Bangladesh were 15% and 18%, 44% and 17%, 29% and 25%, 10% and 39%, 2% and 11% Illiterate, Primary, Secondary, Under Graduate and above Graduate, respectively.² So, most of the respondent in both studies completed secondary level of education. In this study, most of the respondents 76.87% were housewives followed by garments workers 29 (18.12%). However, maximum of their husbands were illiterate 40 (25%) followed by 35 (21.87%) who had secondary level of education and they worked mostly as dorji, cloth business and decorator etc. 51 (37.87%) followed by garments workers 44 (27.5%). The Maximum monthly income of the family was 100,000 Taka whereas majority of the respondents had monthly family income ranges

from above Taka > 10,000 (52.5%). The median family income was Taka 10238 ranging from Taka >10,000. In south west region of Bangladesh, 60% of pregnant women had family income <5000, 20% had family income in 5000-8000 range and 13.25% had family income in 8000-10000 range while only 6% had family income >10000¹ which differs from our study. Our study also revealed that most of the respondents 118 (73.75%) were in nuclear families followed by joint families 42 (26.25%). Most of the respondents 56.25% had ≤4 family members followed by 40%; who had 5-9 family members. Another survey indicated that 50.50% had family size >4, 42.75% had family size 3-4, 6.75% of pregnant women have family size < 3. So, in that study, the majority family sizes were >4.

In this study, most of the respondents 96.87% completed full term pregnancy. Comparatively, another study revealed that, majority of the respondents 37 (33.6%) went through 7 months of pregnancy.³ Most of the respondents 50% did light work during their antenatal period followed by heavy work 34.37%. Another study showed that, 70.9% did light work during antenatal period and 27.3% did moderate work.³ The study revealed that, 68.75% respondents took their meal with family members followed by who took meal last of all members 13.12%. Majority of the respondents 54.37% used to eat 3 times daily during their antenatal period followed by those who used to eat more than 4 times a day 36.25%. Most of the respondents 95 (59.37%) discarded rice bran during cooking, only 65 (40.62%) did not. Also, maximum number of respondents 101 (63.12%) used to wash vegetables after cutting and 59 (36.87%) used to wash before cutting vegetables. Most of the respondents 147 (91.88%) took rice followed by vegetables 114 (71.25%) on daily basis and then meat 117 (73.13%) followed by fish 77 (48.13%) taken 1-3 days/week. It is comparable to a study about “Dietary habits of women during their antenatal period” conducted on antenatal mothers who attended in Comilla Medical College hospital, in which, out of 110 respondents, 78 (70.90%) took vegetables 4-6 times/week and 55 (50%) of them took egg 4-6 times/week. 56.25% respondent took advice and only 43.75% took no advice from a health center during antenatal period and those who took advice, most of them 88 (55%) were advised about taking nutritious food followed by 43 (26.87%) about eating frequently.

Conclusion:

Unlike hereditary or pre-existing disease condition, the nutritional status of pregnant mother is easily modifiable. Grass root level health workers should be trained in basic nutrition so that they can motivate the mothers about the importance of good dietary habit during pregnancy. Family members for example, husband and mother in law

should be motivated regarding the extra needs of food and dietary habit during pregnancy.

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