

## Knowledge On Required Nutrition During Pregnancy Among The Mothers Attending OPD At Gyne And Obs.Dept. In A Tertiary Level Hospital, Sylhet

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### Abstract

**Background:** The health of a mother is of great importance for her children. A healthy well-nourished mother gives birth to a healthy child. Mother with poor nutrient reserves will naturally affect the growth and development of the child.

**Methods:** A descriptive cross sectional study design was conducted.

**Results:** The present study shows that Knowledge about food consume during pregnancy was found in the study that the majority 80.8% had knowledge the rest had no knowledge. Knowledge about the need of additional nutritious diet during pregnancy showed that majority 98.3% had knowledge while only .8% had no knowledge. In the present study it was found that 57.5% respondents had knowledge about the cause of requirement of nutritious diet during pregnancy. Mothers' knowledge about complications due to low intake of additional nutritious diet was found in the study that majority 97.5% had knowledge while 1.7% had no and only .8% didn't know. The present study revealed that majority 61(50.8%) of the respondents told according to suggestion of doctor the frequency of iron and calcium tablet should be taken. 38.3% told 5 times per week, 4.2% told 3-4times per week .The study showed that only 42.5% had correct knowledge while the rest had incorrect knowledge and 3.3% did not know about the intake of Vitamin A during pregnancy. The frequency of food intake in the last week was recorded at the time of the study. The result found that 120 (100%) respondents had taken rice more than three times in week bread 46.66% <3 times, 53.335% > 3 times.

**Conclusion:** In this study majority respondents had knowledge about the need of additional nutritious diet during pregnancy while only few had no knowledge.

### LIST OF ABBREVIATION

**BMI** -Body mass index

**CED**- Chronic Energy Deficiency

**DALYs**- Disability-adjusted life years

**DHS**- Demographic and Health Surveys

**FANTA** -Food and Nutrition Technical Assistance Project

**FAO**- Food and Agriculture Organization of the United Nations

**GDP**- Gross domestic product

**HKI** -Helen Keller International

**HIV**- Human immunodeficiency virus

**HSR**- Health sector reform

**IDD**-Iodine deficiency disorders

**IFPRI**- International Food Policy Research Institute

**IPHN**- Institute of Public Health Nutrition

**IMCI**- Integrated Management of Childhood Illness

**IMF**- International Monetary Fund

**INACG** -International Nutritional Anemia Consultative Group

**IUGR** -Intrauterine growth retardation

**LBW**- low birth weight

**MDGs**- Millennium Development Goals

**MICS**-Multiple Indicator Surveys from UNICEF

**NGO**- Non-governmental organization

**NSP**- Nutritional Surveillance Project

**PRSP**- Poverty reduction strategy paper

*SCN- Standing Committee on Nutrition (of the United Nations System)*

*TB- Tuberculosis*

*Tk- Taka, the currency of Bangladesh*

*UNION -Smallest administrative unit of Bangladesh, Composed of several mauza*

*UN-United Nations*

*UNDP -United Nations Development Program*

*UNFPA -United Nations Population Fund*

*UNICEF -United Nations Children's Fund*

*Upazila- Administrative unit of Bangladesh*

*USAID-United States Agency for International Development*

*VAD- vitamin A deficiency*

*HH- House hold.*

**Keywords:** *Pregnancy Nutrition, Knowledge, nutritional status, pregnancy care ,pregnant mother, Vitamin A*

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## **I. Introduction**

The nutritional and health status of women is of great concern in contemporary world, because the multiple roles played by women give rise to serious health and nutritional problems. This situation is even worse in countries where social norms and sex discrimination have forcefully subjected women to satisfy the health and nutritional needs of their families at their own expense. Women are, vulnerable to malnutrition for social and biological reasons.<sup>1</sup>

The nutritional knowledge is to affect change in behaviour that will result in nutritionally sound food practices. When a change in diet is a part of a therapeutic regimen, the sick women may be more receptive and motivated to alter her eating habits, although experience has shown that this change is often short-lived. Despite this, nutritional knowledge continues to be stressed by physicians, nutritionist, public health workers, and nurses and industry in the hopes of beneficially changing behaviour. Poor maternal nutrition is directly associated with maternal ill health. Poor nutrition reduces the mother's resistance to infection and infections contribute to the poor nutritional status of the mother. This nutrition-infection complex, unless controlled, places both the mother-to-be and her foetus at increased risk.

Poor maternal nutrition is very common in most developing countries. About half of all pregnant women in developing countries are anaemic, and about a half of this anaemia is due to iron deficiency. Iron deficiency anaemia among pregnant women is associated with one tenth of maternal mortality in developing countries. Iron supplementation during pregnancy helps to prevent severe anaemia, but such programmes often lack effectiveness because they are given little priority. Women that are underweight are more likely to have unsuccessful pregnancies. More than a third of women of reproductive age are underweight in sub-Saharan Africa, and more than a half of all women are underweight in South Asian countries. Food supplementation to underweight women during pregnancy can improve pregnancy outcomes but such programmes are given little priority in most countries.

Nutrition is one of the most important elements in primary health care. It is determining factor in the high morbidity & mortality amongst the under-privileged in developing countries. Bangladesh as an agrarian country is not an exception.

Maternal nutritional depletion – the negative energy balance and/or micronutrient deficiencies resulting from the energetic burden of frequent reproductive cycling (one cycle being conception, pregnancy, lactation/postpartum) combined with under nutrition and overexertion – and its impact on a woman's health and nutritional status and that of her offspring. The article is thus concerned with the impact of nutritional depletion that occurs during a woman's life cycle, as opposed to the effects of nutritional depletion that occur intergenerationally.

All women need more food during pregnancy. All pregnant women need more rest. The Husband and family of a pregnant woman should ensure that she eats a variety of extra food every day starting as soon as pregnancy is confirmed. She should have rest than usual, especially, meat, fish, egg, pulses, rice, roti, fruits and potato. There is no reason to avoid any of these foods during pregnancy. If possible, a woman should be weighed as soon as she knows that she is pregnant. It is important to gain a total of 7 kilograms before the baby is born.

## II. Materials and Methods

**Study area and period:** The study was carried out through the present study in order to explore the Knowledge on Required Nutrition during pregnancy among the mothers attending OPD at Gyne and Obs.Dept. of a tertiary level hospital named Sylhet MAG Osmani Medical College Hospital (SOMCH), Sylhet from January to June 2022.

**Study design:** A descriptive cross sectional survey design was conducted.

**Source of Population:** The research participants were mothers of reproductive age attending OPD at Gynae and Obs.Dept. of Sylhet MAG Osmani Medical College Hospital.

**Study population:** The research participants were mothers of reproductive age. They were recruited consecutively on the basis of defined selection criteria.

Selection criteria

Inclusion criteria: a) mothers coming at study place  
b) Only reproductive age  
c) Voluntary participation

Exclusion criteria

a) Mentally ill women  
b) Who have no interest to participant in this study?

**Sample size :**Due to time constrains and limited facilities sample size was 120

**Data collection Instrument:** The data collection instrument was prepared by researcher himself based on the literature review. The instruments of data collection consist of two parts:

1.Part-A: Independent variables/demographic data: Socio-demographic characteristics such as age, income, educational status, occupational status, decision maker of HH expenditure etc.

2. Part-B: Dependent variables: Knowledge of mothers on required nutrition during pregnancy.

## III. Dicussion

Decision making authority in family expenditure is the prime concern in maintaining equity. The present study shows that majority 86.7 % of the family's HH Expenditure decision maker was husband. The rest 10% was grand father and mother and only 1.7% had self decision making authority for family expenditure. So equity was no maintained among the study cases. It also revealed in the study that most of the families were male dominated.

The mean children were found in the study  $1.44 \pm .79$  children. The majority 48.3% of the respondents had 1 child. 35.8% of the respondents had 2 children. The rest 8.3% had no children while 5.8% had 3 children and 1.75% had more than 3 children.

Knowledge about food consume during pregnancy was found in the study that the majority 80.8% had knowledge about food consumption during pregnancy. The rest had no knowledge about food taking during pregnancy. Knowledge about the need of additional nutritious diet during pregnancy showed that majority 98.3% had knowledge about the need of additional nutritious diet during pregnancy while only .8% had no knowledge.

The adequate knowledge regarding requirement of nutritional diet during pregnancy is very important because it is essential for the development of fetus. It is also required for mother to maintain health. In the present study it was found that 57.5% respondents had knowledge about the cause of requirement of nutritious diet during pregnancy. It was not expected in the present world. Sources of information about taking nutritious diet may be the reason behind it. Because of poor socioeconomic condition of mothers, they cannot get access to information for proper nutritional requirement. The study found that 46.7% of the respondents had got information from health workers, 20% from radio, 10% from television and another 10% from neighbors.

Mothers' knowledge about complications due to low intake of additional nutritious diet was found in the study that majority 97.5% had knowledge about complications due to low intake of additional nutritious diet while 1.7% had no and only .8% didn't know.

ANC during pregnancy can save mothers as well as child life most of the time because many complications due to pregnancy can be avoided by timely ANC. The study revealed that majority 41.7% respondents told 4 times, 35% told five times, 15% told 3 times ANC was needed.

The requirement of iron and calcium tablet during pregnancy is very common phenomenon but the frequency of taking iron and calcium tablet during pregnancy period is little known. The present study revealed that majority 61(50.8%) of the respondents told according to suggestion of doctor the frequency of iron and calcium tablet should be taken. 38.3% told 5 times per week, 4.2% told 3-4times per week. Mothers knowledge about intake of Vitamin-A during Pregnancy is also important because high dose of vitamin-a may cause the still birth. The showed that only 42.5% had correct knowledge while the rest had incorrect knowledge and 3.3% did not know about the intake of Vitamin –A during pregnancy.

Knowledge about taking rest during pregnancy period was found in the study that majority 77.5% of the respondents had correct knowledge about taking rest during pregnancy period, 19.2% told as usual rest should be taken, 2.5% told less rest should be taken. The frequency of food intake in the last week was recorded at the time of the study. The result found that 120 (100%) respondents had taken rice more than three times in week bread 46.66% <3 times, 53.335 > 3 times

Knowledge on complications caused by low intake of nutritious food during pregnancy was found in the study that among 120 respondents majority 80.6% cases was physical weakness of mothers caused by low intake of nutritious food during pregnancy,20.5% cases was LBW baby , 10% still birth and 9.33% anemia. BMI was found in the study that 72.5% had > 19 BMI and 27.5% had <19 BMI.

The relationship between education and BMI was found insignificant (p-value .311).

Relationship between level of education and knowledge about complications due low intake additional nutritious diet among the respondents was also found insignificant (p-value .1).

#### IV. Results

**Table-1: Distribution of respondents by socio-economic and demographic characteristics**

Age group	Frequency	Percentage
15-20	17	14.2
21-25	53	44.2
26-30	32	26.7
31-35	6	5.0
36-49	12	10.0
Total	120	100.0
<b>level of Education</b>		
Illiterate	3	2.5
Sign only	7	5.8
Primary	40	33.3
<b>Level of Occupation</b>		
House wife	115	95.8
Day Labour	2	1.7
services	2	1.7
Student	1	.8
<b>Decision maker of HH Expenditure</b>		
Husband	104	86.7
Self	2	1.7
Grand Father/Mother	12	10.0
others	2	1.7

**Table-2: Distribution of respondents by knowledge of nutritious food intake during pregnancy.**

Mothers knowledge about food consume during Pregnancy		
Less to consume	4	3.3
more to consume	97	80.8
Take food as usual	18	15.0
Don't Know	1	.8
<b>Mothers knowledge about the need of additional nutritious</b>		

<b>diet during pregnancy</b>		
Yes	118	98.3
No	1	.8
Don't Know	1	.8
<b>Mothers knowledge about the cause of requirement of nutritious diet during Pregnancy</b>		
Required Nutrition for mother	6	5.0
Required nutrition for foetal growth	45	37.5
Required Nutrition for both	69	57.5
<b>Mother's Knowledge about the frequency of taking Iron tablets, Calcium tablet during Pregnancy period</b>		
1-2 time per Month	2	1.7
1-2 time per week	2	1.7
3-4 time per week	5	4.2
5 times per week	46	38.3
According to suggestion of doctor	61	50.8
Should not Taken	2	1.7
Don't No	2	1.7
<b>Knowledge of Mothers about intake of Vitamin-A during Pregnanc</b>		
Yes, Should have taken	47	39.2
Should have taken according to doctor's Suggestion	51	42.5
Should not taken	18	15.0
Don't No	4	3.3
<b>Types and frequency of food in a week</b>		
<b>Food name</b>	<b>&lt;3 times Frequency</b>	<b>percentage</b>
<b>Rice</b>	0	0
<b>Bread</b>	56	46.66
<b>Dall</b>	85	70.8
<b>Fish/meat</b>	78	65
<b>Egg</b>	91	75.83
<b>Leafy vegetables</b>	67	55.83
<b>Other vegetables</b>	25	20.83
<b>Fruits</b>	89	74.16
<b>Milk</b>	66	55
<b>Sugar</b>	67	55.83
<b>Food name</b>	<b>&gt;3times frequency</b>	<b>Percentage</b>
<b>Rice</b>	120	100
<b>Bread</b>	64	53.33
<b>Dall</b>	35	29.16

<b>Fish/meat</b>	42	35
<b>Egg</b>	29	24.16
<b>Leafy vegetables</b>	53	44.16
<b>Other vegetables</b>	95	79.16
<b>Fruits</b>	31	25.83
<b>Milk</b>	54	45
<b>Sugar</b>	53	44.16

**Table-3: : Mothers knowledge about complications due to low intake of additional nutritious diet**

<b>Knowledge on complications</b>	<b>Frequency</b>	<b>Percentage</b>	
Yes	117	97.5	
No	2	1.7	
Don't Know	1	.8	
<b>Knowledge of respondents on complications caused by low intake of nutritious food during pregnancy</b>			
<b>Complications</b>	<b>Responses</b>		<b>Percentage of cases</b>
	<b>No</b>	<b>Percentage</b>	
Anemia of mother	10	8.33	9.33
Physical weakness of mother	70	58.33	80.6
Oedema	0	0	0
Disable child	5	4.16	6.2
LBW baby	20	16.66	20.5
Still birth	10	8.33	10.4
Others	5	4.16	5.3

## V. Conclusion

The nutritional status of a woman before she becomes pregnant can determine the birth weight and survival of her future children. This is particularly true of women who have experienced protein energy malnutrition at sometime during their lives. It may also be true of women who have had inadequate micronutrient intakes before conception although evidence for this is less clear. Programs should continue to address malnutrition in small children where most of the damage to growth is done, but efforts should also be made to ensure adequate intakes of energy and micronutrients of adolescent girls and delay pregnancy so they can maximize their growth before conception. If possible, women should be weighed prior to and during pregnancy to identify those at risk for delivering low birth weight babies. Interventions to increase energy and micronutrient

Intakes and decrease energy expenditure should help those at risk to optimize their weight and micronutrient status and survival chances of their infants. A good start in life is important and maternal nutritional status during pregnancy has repeatedly been demonstrated to be associated with pregnancy outcomes for the infant. Reducing maternal mortality in Bangladesh has also taken multidimensional programs. However, the importance of skilled attendance at delivery and management of obstetric complication has been on priority. The improvement of maternal health and related indicators in Bangladesh can be attributed by the expansion of maternal health service with Emergency obstetric care facilities (EOC) facilities, community mobilization and awareness about health problem and importance of seeking health care, female education and empowerment, extensive family planning service and the like. However, in Bangladesh to provide improved maternal health care with the aim of reducing maternal mortality, there are many gaps still to fill such as high unmet need for EOC and other obstacles. We could identify lack of resources, both at the community and health care centers, poor allocation of equipment and staff in the health care centers, the misunderstanding of cultural sensitivity in the health care centers, poor infrastructure, especially transport, corruption, low motivation of women and their families to seek care as some of the obstacles. The conceptual framework establishes a relationship among the targets, and between the targets and reduction of maternal mortality. It underscores the fact that the MDG targets set for Bangladesh, some way or others are affecting maternal mortality. In addition to that, it is also to be mentioned that each targets are again influenced by various other socio-economic, demographic and cultural

factors, of fertility, age at marriage and skilled attendance at birth. It has to be recognized that not all the targets for MDG Five in Bangladesh has been well studied much in relation with maternal mortality. For example violence against women, although is an important cause of maternal death, is yet to be studied, particularly which type of violence and how causes maternal mortality. The literature review also reveals a lack of sufficient study in relation to the progress, variations, evaluation of MDG Five and its targets in Bangladesh.

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