

Nutritional Status of Mothers with Children under Five: A Case Study of Bamunia Village, Sherpur

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ABSTRACT

In rural areas like Bamunia Village, where access to wholesome food and medical care is scarce, maternal nutritional status is very important for the health of both mothers and children. In Bamunia Village, this study looks at maternal nutritional practices and the socioeconomic and cultural elements that affect them. It investigates the availability of nutritional resources throughout pregnancy and the postpartum phase, maternal awareness, and eating trends.

The results show that in order to raise blood levels during pregnancy, moms eat a wide variety of foods, including as milk, eggs, fish, vegetables, and meats, with particular predilection for meals like pigeon and Kachu shak. Black cumin seeds are included in postpartum diets because they are thought to improve lactation and recuperation. Meal frequencies vary from three to five times a day, depending on cultural customs and dietary requirements. Misconceptions still affect decisions, though, such as the idea that particular foods should be avoided during solar eclipses or that having big infants is a bad idea.

While many mothers demonstrate a strong understanding of dietary needs and balanced nutrition, a significant portion lack such awareness. Socioeconomic factors, including income and educational attainment, play a critical role in shaping dietary habits, with higher levels of income and education generally leading to better nutrition. Furthermore, cultural norms serve a dual purpose, both supporting and limiting maternal nutrition.

In order to enhance maternal and child health outcomes, this study emphasizes the necessity of culturally relevant interventions, fair access to resources, and focused nutritional education. The cycle of malnutrition in Bamunia Village and other rural areas can be addressed with an all-encompassing strategy that incorporates education, financial assistance, and observance of cultural norms.

INTRODUCTION

Maternal nutritional status is an important aspect of public health, particularly in relation to its impact on the health of the next generation (Zhang et al., 2019). It is well recognized that the nutrition a mother obtains before conception, during pregnancy, and during the breastfeeding period has a substantial impact on her health as well as the growth, development, and survival of her children (Marshall et al., 2022). In rural areas like Bamunia Village in Sherpur, where access to healthful food and medical care may be limited, the challenges are even more severe.

In many of these areas, maternal malnutrition remains a significant issue and is often linked to food poverty, financial difficulties, and a lack of nutritional diversity (Padilla-Vasquez, 2023). Cultural norms and inadequate healthcare facilities exacerbate these issues, perhaps leading to a generational cycle of malnutrition (Mbuya, Atwood, & Huynh, n.d.). Mothers whose children are under five years old are particularly affected by inadequate nutrition since it affects both their personal health and the growth and development of their small children (De & Chattopadhyay, 2019).

Youngsters under five are in a critical developmental stage where proper nutrition is essential for both healthy growth and immune system function. According to De and Chattopadhyay (2019), low birth weight kids born

to malnourished mothers are more likely to suffer from stunted growth, developmental delays, and increased susceptibility to infections. An important strategy for improving child health outcomes in rural communities like Bamunia Village, where healthcare resources are often overextended, is to address maternal nutrition.

This study focuses on the nutritional status of mothers in Bamunia Village to provide a comprehensive understanding of the factors contributing to maternal and infant malnutrition in this rural community. The study aims to investigate the nutritional challenges faced by mothers and their children under five.

Main objective:

To evaluate the nutritional practices of mothers with children under five in Bamunia Village and explore the factors that shape these practices.

Specific Objectives:

- To identify the common dietary practices of mothers in Bamunia Village
 - ✓ Examine the types of foods commonly provided to children.
 - ✓ Analyze the frequency and consistency of meal patterns.
- To evaluate the knowledge and awareness of mothers during pregnancy and postpartum periods
 - ✓ Assess the level of understanding among mothers about balanced diets, food groups, and nutritional needs.
 - ✓ Investigate the sources of nutritional information for mothers in the village.
- To determine the socio-economic and cultural factors influencing maternal nutritional practices in Bamunia Village
 - ✓ Explore the role of household income, education level, and cultural beliefs in shaping dietary practices.
 - ✓ Identify barriers to accessing nutritious food and maintaining healthy feeding practices.

METHODOLOGY

This is a qualitative study to ensure a comprehensive analysis of maternal nutrition.

Study Area:

There are roughly 1,500 homes and 6,000 people living in Bamunia Village, which is in Shahjahanpur Upazila (2,900 men and 3,100 women). With 100% electrical coverage, the neighborhood has one madrasa and one elementary school. The interviewees, who were mostly women with an average age of 35 and a maximum educational attainment of secondary school completion, came from a predominantly rural community.

Data Collection Procedures:

1. **In-depth Interviews:** Conducted with 30 mothers to explore dietary practices and meal frequency.
2. **Informal Discussions:** Held with 15 family members to understand social and cultural influences.
3. **Focus Group Discussion (FGD):** Conducted with nine mothers to identify barriers and explore socio-economic factors.
4. **Quantitative Surveys:** Collected data on dietary diversity, anthropometric measures (BMI, weight, height), and hemoglobin levels for mothers and children.

Sampling:

Participants were selected through purposive sampling to ensure representation of mothers with children under five. The sample included mothers across various income and education levels.

Data Analysis:

Qualitative data were analyzed thematically.

Data collection procedure:

This qualitative study aims to explore and gain a deep understanding of maternal nutrition.

Data collection matrix		
Objectives	Methods	Number of Respondents
To identify the common dietary practices of mothers in Bamunia Village	In depth interview with mother(s)	30
To evaluate the knowledge and awareness of mothers during pregnancy and postpartum periods	Informal discussion	15 (family members)
To determine the socio-economic and cultural factors influencing maternal nutritional practices in Bamunia Village	FGD- 01	09 (mothers)

Common dietary practices of mothers in Bamunia village:

In Bamunia village, the dietary practices of mothers during pregnancy and the postpartum period reflect a balance of nutritional needs and cultural traditions. While the overall diet remains consistent across both phases, there are subtle differences that highlight specific maternal health beliefs and practices during pregnancy and the postpartum period, the diets of mothers include a variety of essential foods such as milk, eggs, vegetables, fish, chicken, meat, and fruits. These staples provide a range of nutrients necessary for maintaining the health and well-being of both the mother and the baby. Dates and cashew nuts are also occasionally incorporated into their meals, although less frequently. These foods are valued for their nutritional benefits and are often consumed when available.

A notable adjustment in the postpartum diet is the introduction of black cumin seeds, which are not commonly consumed during pregnancy. This practice is deeply rooted in traditional beliefs, as black cumin is thought to support breastfeeding by enhancing milk production and improving the mother’s overall strength during recovery. This reflects the cultural understanding of the importance of supporting lactating mothers through dietary means.

Frequency of Taking Meal:

In Bamunia village, changing customs and attitudes on maternal nutrition are reflected in the frequency of meals mothers eat during pregnancy and the postpartum phase. The shift between these two crucial stages is indicated by minor variations in eating habits, even though some consistency still exists.

The majority of pregnant women prioritize regular nourishment to satisfy their increased nutritional needs, preferring to consume several meals throughout the day. However, some mothers continue to eat two or three meals a day, maintaining a lower frequency of meals. This variance most likely results from variations in personal routines, dietary availability, or cultural preferences. Many people believe that eating more regularly is crucial to sustaining their energy levels and promoting the baby's development.

Some moms experience changes in their eating habits during the postpartum phase. Some continue eating more frequently to promote healing and maintain nursing, while a considerable portion switch to a more standardized pattern of three meals daily. This change illustrates how the practical requirements of the mother's recuperation and lactation demands impact postpartum eating patterns. It's interesting to note that none of the

mothers reproduce the precise meal schedule they adhered to during pregnancy, suggesting a noticeable shift in eating patterns following delivery.

In the past, the community believed that consuming more during pregnancy may result in a larger baby, which would raise the possibility of delivery problems. But throughout time, this notion has waned, making room for a more contemporary interpretation.

All things considered, Bamunia village's meal frequency patterns show how the community is changing its approach to maternal health. In addition to reflecting personal preferences and needs, they also show a move away from long-held myths and toward more knowledgeable and health-conscious behaviors. This slow shift emphasizes how crucial knowledge and education are to improving maternal nutrition outcomes.

Dietary Preferences in Bamunia Village during Pregnancy and Postpartum

In Bamunia village, the consumption of certain foods varies between pregnancy and the postpartum period, reflecting the changing nutritional needs of mothers during these stages.

During pregnancy, milk and eggs are the most commonly consumed foods, with nearly all mothers incorporating them into their diets. Additionally, many mothers include *Kachu shak* and pigeon, which are believed to be beneficial for increasing blood levels. These foods are particularly valued during pregnancy when the body's demand for blood and nutrients is higher to support the growing baby.

In the postpartum period, the dietary focus shifts slightly. Milk and eggs remain staples in the diet, continuing to provide essential nutrients for recovery and lactation. However, *Kachu shak* and pigeon are rarely consumed after delivery. This change reflects the reduced need for foods that specifically boost blood levels, as the demand for additional blood supply decreases following childbirth.

These dietary practices highlight how mothers in Bamunia village adapt their food choices to meet the specific nutritional requirements of pregnancy and postpartum recovery. The inclusion of traditional foods like *Kachu shak* and pigeon during pregnancy underscores the community's awareness of the importance of addressing maternal health needs through diet.

Level of knowledge:

In Bamunia village, the level of knowledge among mothers regarding a balanced diet, food groups, and nutritional needs varies. When asked about what constitutes a balanced diet and which types of food contain specific vitamins, as well as whether they are aware of the need to eat more frequently during pregnancy and the postpartum period, the responses were as follows:

Nutritional Knowledge Scale:

- **Standard Knowledge:** Six mothers demonstrated a basic understanding of a balanced diet and awareness of different food groups but lacked detailed knowledge about specific vitamins and nutrients. They also had a limited understanding of the need to increase food intake during pregnancy and postpartum.
- **Good Knowledge:** Fifteen mothers had a clear understanding of the components of a balanced diet, including the roles of various food groups. They also knew about specific vitamins and their sources and understood the need to eat more frequently during pregnancy and the postpartum period for proper nutrition and health.
- **Poor Knowledge:** Nine mothers had a limited or incorrect understanding of what constitutes a balanced diet, with little to no knowledge of specific food groups or vitamins. They were also unaware or unclear about the nutritional requirements during pregnancy and postpartum, including meal frequency.

These findings highlight that while a **significant number of mothers** in Bamunia village have a good understanding of dietary needs, there is still a **portion of the population with limited knowledge**. This suggests a need for further nutritional education to ensure that all mothers are equipped with the necessary information to make informed dietary choices during pregnancy and postpartum periods.

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Sources of information

In Bamunia village, mothers seek information during pregnancy and the postpartum period from a variety of sources, reflecting a mix of public and private healthcare options, as well as community-based support. The community clinic is the most frequently used source, with many mothers turning to it for advice and guidance. Private Doctors also play a significant role, with a notable number of mothers consulting them for personalized healthcare information. Government hospitals are another common source of information, offering medical support and advice during these crucial stages. Additionally, non-governmental organizations like BRAC are an important resource for many mothers, providing education and support in areas such as nutrition and maternal health.

These diverse sources indicate that mothers in Bamunia village rely on a combination of healthcare services, both public and private, along with community-based organizations, to make informed decisions about their health and nutrition during pregnancy and the postpartum period. This mix reflects the village's multifaceted approach to maternal care, drawing from various available resources to ensure that mothers receive the guidance they need.

Socio-economic and cultural factors:

Socioeconomic factors significantly influence maternal nutritional practices in Bamunia Village. The study found that higher household income and higher levels of education are positively associated with improved nutritional practices due to increased awareness.

Specifically:

Increased income leads to improved nutritional practices. This suggests that families with more financial resources are better able to afford a variety of nutritious foods that contribute to a balanced diet.

Increased education level leads to improved nutritional awareness. Mothers with more education are more likely to understand the importance of balanced diets, food groups, and nutritional needs during pregnancy and the postpartum period.

Increased awareness is correlated with better nutritional practices. When mothers are educated about the importance of good nutrition, they are more likely to adopt healthy eating habits.

Lower socioeconomic status can limit access to adequate nutrition and information¹. This indicates that families with limited income may struggle to afford nutritious foods, and may also have less access to educational resources or healthcare.

In summary, socioeconomic factors like income and education play a crucial role in shaping maternal nutrition in Bamunia Village. **Higher income and education are linked to better dietary habits and increased awareness of nutritional needs**, while lower socioeconomic status presents barriers to accessing adequate nutrition and information.

To analyze the changes in mothers' nutritional knowledge and practices and the influence of socio-economic and cultural factors on their dietary choices, let's break it into key components:

➤ **Nutritional Knowledge and Practices During Pregnancy and Postpartum Period:**

- **Increase Knowledge:** 19
- **No Change:** 11
- This indicates that a majority of mothers experience an increase in nutritional knowledge during pregnancy and the postpartum period, while a smaller number see no change.

➤ **Socio-Economic and Cultural Factors:**

a) **Influence of Household Income and Educational Level:**

- **Increase Income:** Leads to improved nutritional practices.
- **Increase Educational Level:** Leads to improved nutritional awareness.
- **Increase Awareness:** Correlates with better nutritional practices.

This suggests that both higher household income and educational level are positively associated with better nutritional practices due to increased awareness.

b) **Cultural Beliefs and Practices Influencing Dietary Choices:**

- **Scaly Fish:** 07
- **Solar Eclipses – Avoidance of Food:** 10
- **Coconut Water Avoidance:** 08
- **More Food Causes Large Baby:** 13
- **No Specifics:** 17

The most common cultural influences include avoidance of certain foods during solar eclipses and concerns about the deformation of the baby, which affects dietary choices. Other factors include avoidance of scaly fish and coconut water.

These findings highlight the complex interplay between nutritional knowledge, socio-economic status, and cultural beliefs in shaping dietary practices among mothers.

RECOMMENDATIONS

➤ **Nutritional Education Programs:**

- Develop community-based workshops targeting mothers and family members to address misconceptions and improve awareness.
- Collaborate with NGOs like BRAC to deliver culturally sensitive nutritional education.

➤ **Economic Support Initiatives:**

- Provide subsidies or food vouchers for low-income families to access nutrient-rich foods.
- Promote income-generating activities for mothers to improve household financial stability.

➤ **Healthcare Interventions:**

- Strengthen the capacity of community clinics to offer tailored nutritional counseling.
- Train healthcare workers to incorporate cultural beliefs into nutrition advice without alienating communities.

➤ **Policy Advocacy:**

- Advocate for policies that integrate nutrition education into primary and secondary school curricula.
- Encourage government partnerships with NGOs to address maternal malnutrition comprehensively.

CONCLUSION

A thorough grasp of the dietary behaviors, knowledge, and socioeconomic and cultural elements influencing maternal nutrition in a rural setting is offered by the study on mother nutritional practices in Bamunia Village. In Bamunia Village, mothers typically eat a range of meals during pregnancy and the postpartum period, including vegetables, fish, eggs, and milk. Some foods, like pigeon and kachushak, are favored during pregnancy because of their alleged health benefits, while others, like black cumin, are part of postpartum diets. The range of meal frequencies, which reflects adjustments to dietary requirements and cultural beliefs, is three to five times each day. However, dietary choices are also influenced by cultural customs, such as refraining from eating particular foods during solar eclipses and worrying about the baby's growth.

A sizable percentage of moms lack sufficient knowledge, despite the fact that many show a strong awareness of balanced diets and nutritional requirements. This discrepancy emphasizes the necessity of focused nutritional education to guarantee that all moms have the knowledge they need to make wise food decisions both during and after pregnancy. A variety of sources, including government hospitals, private physicians, community clinics, and non-governmental groups like BRAC, provide nutritional advice. This diversity offers moms a number of support options, but it also highlights how crucial it is to make sure the data these sources give is correct and thorough.

Maternal nutritional behaviors are significantly influenced by socioeconomic factors, including household income and educational attainment. While lower socioeconomic status restricts access to proper nutrition and information, higher income and education levels are linked to improved eating habits and heightened awareness of nutritional needs. Additionally, cultural attitudes are important since they can have both beneficial and restricting effects on food choices.

The study emphasizes the necessity of a comprehensive strategy to enhance maternal nutrition in Bamunia Village. This entails raising awareness through focused educational initiatives, removing socioeconomic obstacles to guarantee fair access to nutrition, and advocating for evidence-based dietary choices while honoring cultural values. It is feasible to break the cycle of malnutrition in this rural community and enhance mother and child health outcomes by combining education, socioeconomic support, and culturally sensitive tactics.

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