

Malnutrition During Pregnancy among Child Bearing Mothers in Mushari Block of Muzaffarpur District of Bihar

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Abstract

Malnutrition has been widely recognized as a grave burden restricting the progress of underdeveloped and developing countries. Maternal, neonatal and postnatal nutritional immunity provides an effective approach to decrease the risk of malnutrition associated stress in adulthood. Particularly, maternal nutritional status is a critical contributor for determining the long-term health aspects of an offspring. Maternal malnutrition leads to increased risk of life, poor immune system, delayed motor development and cognitive dysfunction in the children. An effective immunomodulatory intervention using nutraceutical could be used to enhance immunity against infections. The immune system in early life possesses enormous dynamic capacity to manage both genetic and environment driven processes and can adapt to rapidly changing environmental exposures. These immunomodulatory stimuli or potent nutraceutical strategy can make use of early life plasticity to target pathways of immune ontogeny, which in turn could increase the immunity against infectious diseases arising from malnutrition. However, there are many futuristic issues that need to be resolved for proper modulation of these therapeutic interventions to prevent malnutrition.

Keywords: malnutrition, inflammation, nutritional supplementation,

Introduction

Rapid industrialization and commercialization have changed our living standard and dietary habits. A proper nutrition provides a flexible infrastructure for the brain development which forms the basis of human growth and economic progress. The hunger level is measured globally as Global Hunger Index (GHI) by Welthungerhilfe and concern worldwide to evaluate the progression in hunger. 12.3% of world's population is undernourished with 27.9% stunted and 9.3% wasted children as reported by GHI, 2018. Every country in the world is facing a grave burden of malnutrition where South Asia and Africa is striving hard with under serious hunger category with GHI of 30.5 and 29.4, respectively. The mortality rate of children aged under five, category is 4.2%. However, GHI score of almost all countries from 2000 to 2018 decreased substantially except Central African Republic which shows no advancement. India ranks 103 out of 119 countries assessed with a GHI score of 31.1 (serious category). Still today, 20–50% of the patients admitted in hospital are found to be malnourished with poor recovery rate from illness. In simple words, malnutrition is a condition of imbalanced or inadequate nutrient intake by a person. It includes undernutrition (wasting, stunting, and underweight), over-nutrition (overweight and obesity) and micronutrient related malnutrition (micronutrient deficiency or excess). Malnutrition is a serious health problem associated with the increased

susceptibility to mortality and morbidity. It is now widely accepted as silent executioner. In this review, I use the term 'malnutrition' to refer simply to a deficiency of nutrition and its effects on pregnant women and the newborn. Many epidemiological and experimental reports suggest that nutritional status during fetal development plays an important role in maintaining energy metabolism at later life. The nutritional status of the mother strongly affects the brain development and cognitive abilities in the offspring. All the members in a community are affected by maternal nutritional patterns, but children and infant are at the highest risk as they need more nutrition for growth and development. Similarly, pregnant and lactating women are at risk and the babies born will be more prone to any disease at later life. Maternal and infant malnutrition is found to be associated with behavioral and cognitive impairment throughout the childhood and adulthood that makes them more vulnerable to neuropsychiatric disorders. Several studies demonstrated that maternal malnutrition alters the fetal genome and increases the risk of neuropsychiatric disorders including depression, schizophrenia, aggression, hyperactivity and anti-social behavior.

Despite the high prevalence of the serious consequences of maternal malnutrition, a very little information dealing with potent nutritional rehabilitation strategies against malnutrition is available. There is an urgent need of food or a food supplement which imparts both nutritional and medicinal benefits to the society. Such types of dietary supplements are called as nutraceuticals or functional foods.

Purpose of the Study: The general purpose of the study is to find out how far the child bearing mothers are aware of the consequences of malnutrition during pregnancy. Specifically, the paper sought to Determine the consequences of malnutrition during pregnancy To what extent do pregnant women know the causes of malnutrition.

Research Questions: The following research questions guided the study:

- A) What are the consequences of malnutrition during pregnancy?
- B) What are the causes of malnutrition during pregnancy?

Method: The design of the study was a descriptive survey design. The population of the study consisted of 200 child bearing mothers in Mushari area of Muzaffarpur District of Bihar State. They are made up of all those who registered for the ante natal in Primary Health Care Centres. . The sample of the study was 200 child bearing mothers. Hence there was no sampling technique. The instrument used was a structured questionnaire used for collecting data. The questionnaire was divided in two sections namely: Section A and Section B. Section A was on the consequences of malnutrition during pregnancy and section B was on the causes of malnutrition during pregnancy.

Discussion

In answering the research question 1, the analysis revealed that related conditions result from malnutrition among women. The findings of the study revealed that abortion and premature delivery is as a result of malnutrition, offspring with low birth weight and high risk of pre natal mortality and morbidity, less immunity which facilitates the entry and multiplication of infection can also result in decrease volume of breast milk. This is in line with the fact that inadequate diets during pregnancy are associated with a higher incidence of complication and difficult deliveries, still birth premature and infant with unusual conditions. When there is poor feeding or nutrition on pregnant mother, there is general weakness, tiredness during some activities like walking long distance, weight loss, loss of appetite, anaemia and reduced immunity, mental and physical weakness. The findings of the study revealed that malnutrition affects the brain development of the fetus This findings corroborates that malnutrition affects

brain development of the fetus. A lot of babies are malnourished before birth. The availability of nutrients to the fetus will depend upon the concentration of nutrients in maternal blood the rate of maternal blood through the placenta and the rate of transfer of nutrients across the placenta to the fetal circulation.

The findings of the study showed some causes of malnutrition to child bearing mothers. These causes involved cultural belief. Many of the respondents agreed that cultural belief is one of the causes of malnutrition.

CONCLUSION

During pregnancy, babies are fed by their mothers, receiving all their nourishments through the placenta and umbilical cord. In this way the mother's body will supply her baby with everything it demands and thus the mother's micronutrients level directly affects her baby's development. When it comes to eating and drinking, what is good for a mother also benefits her child. This natural fact therefore helps mothers to positively influence their baby's growth and development as well as baby's long term health and well being. This study has tried to examine the consequences of malnutrition among child bearing mothers in Mushari area of Muzaffarpur District of Bihar State.