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**Investigating the food habits and beliefs of pregnant women living in rural
Bangladesh**

**A thesis presented for the partial fulfilment of the requirements for the
Degree of
Master of Science
In
Human Nutrition
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New Zealand.**

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To my Oma, whose courage and strength has always been such an inspiration to me and represents the resilience of women worldwide. I miss you and love you; rest in peace.



ABSTRACT

The maternal diet plays a vital role in foetal growth and development, which continues to influence the infant's health status throughout their life and future generations. In developing countries such as Bangladesh, the maternal diet is limited and malnutrition rates are high, most often due to underlying economic, cultural, political and environmental factors that determine complex human behaviours, including food consumption practices.

The aim of this study was to use a mixed method approach to investigate food consumption practices during pregnancy and to explore the role of traditional eating habits and taboos in the maternal diet in rural Bangladesh.

Individual interviews were conducted with pregnant women (n=43) from nine villages in Pirganj upazila to collect demographic and individual dietary diversity data. Eight focus groups were conducted, which commenced with the compilation of a harvest calendar ('ten seed method') followed by a semi-structured discussion about food habits and beliefs whilst pregnant. Additionally, six women completed a photographic participant observation to enrich research findings.

The women's ages ranged between 15-42 years, with 25 belonging to Ethnic Minority (Adivasi) groups and 18 being Bengali. The mean dietary diversity score was 5.9 and the mean food variety score was 7.2, indicating poor diversity. Adivasi women consistently had lower dietary diversity scores and lower socio-economic status than Bengali women. Cultivated crops were rice, jackfruit and mango, with rice being the main crop, harvested twice a year, and consumed daily by all women. Women's social status, cultural customs and high poverty levels prevent them from achieving a diet that includes a varied diet during pregnancy. Most women consume fish 1-2 times a week and meat once every 2-3 months. Taboos regarding pregnancy were variable between groups. Examples include: food preparation during an eclipse causing ear/mouth deformities in their babies; a small pregnancy belly being desirable to prevent difficult childbirth; avoiding pineapple and green papaya because it can cause miscarriage.

Eating habits and taboos are engrained into the Bangladeshi culture and poor practices often result in pregnant women's insufficient consumption of a varied diet. The findings highlight the importance of understanding the relationship between underlying factors of malnutrition when planning sustainable improvements to health and wellbeing. These research findings were successfully incorporated into the Optimal Nutrition During Pregnancy project, which is currently being implemented in the Pirganj community.

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ABBREVIATIONS

ADP – Area Development Program

BBS - Bangladesh Bureau of Statistics

BDHS - Bangladesh Demographic and Health Survey

BMI – Body Mass Index

BRAC – Bangladesh Rural Advancement Committee

DALYs - Disability-Adjusted Life Years

FANTA - Food and Nutrition Technical Assistance

FAO – Food and Agriculture Organisation

FG – Focus Group

FVS – Food Variety Score

IDDQ – Individual Dietary Diversity Questionnaire

IDDS – Individual Dietary Diversity Score

IQ – Intelligence Quotient

LBW – Low Birth Weight

MICS - Multiple Indicator Cluster Survey

NGO – Non-Government Organisation

NIPORT - National Institute of Population Research and Training

ONDP – Optimal Nutrition During Pregnancy

PPM – Parts Per Million

RDI - Recommended daily intake

RAE - Retinol A equivalents

SPSS - Statistical Product and Service Solutions

TBA – Traditional Birth Attendant

UNICEF – United Nations International Children’s Emergency Fund

WHO – World Health Organisation

WDDS – Women’s Dietary Diversity Score

BENGALI TRANSLATIONS AND TERMINOLOGY

Adivasis – People belonging to an Ethnic Minority group in Bangladesh.

Aloo – Potato

Ayurvedic medicine – Local medicine based on herbs roots and metals which originated in India

Baht – Rice

Baja – Woman who cannot conceive a baby

Bashi foods – Foods cooked on previous day

Batul foods – Foods which are taboo to eat after delivery (e.g. hilsha fish, beef, shrimp fish and mutton)

Bhorta – Mash

Caffi - Cabbage

Chanachur - Bhuja/bombay mix

Curd – Yoghurt

Dahl – Lentil

Dudh – Milk

Dudhbaht – Rice cooked in milk

Ekadashi – Hindu fasting period

Fhata – Genetic skin disease similar to itchyitis

Gourd – A plant of the ‘Cucurbitaceae’ family which includes cucumbers, pumpkins and melons.

Gur – Molasses

Guti guti – When baby is born with bumpy skin, similar to a rash

Hapani - Pneumonia

Jhar Fuk - Splashing blessed water over the face

Jujube – Indian Baroi fruit

Khir – Boiled milk and sugar product

Khoi – Dry fried paddy (unprocessed rice)

Kobiraj – Drinking blessed water

Manoth – The act of making a sacrifice and offering a prayer at a place of worship to be able to conceive a baby

Muri – Puffed rice

Nahla - Dribbling

Nasta – Snack

Payesh – Luxurious dessert commonly made from rice, cardamom, raisins, gur and milk

Piazu - Deep fried lentil mixture

Upavas – Hindu fasting period

Ramadan – The ninth month of the Muslim calendar when Muslims observe a month of fasting during daylight hours

Rice fry – Dry fried rice

Roja – Muslim fasting period

Roti – Bread

Shaad – Ceremony when women are provided with food during the seven month of pregnancy

Shaak – Green leafy vegetables

Sim – Green bean

Singara - Bangladeshi samosa

Tel Pitha - Fried sweet bread, similar to doughnuts

Tor kari – Vegetable curry (sometimes with the addition of egg, fish or meat)

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