

ORIGINAL RESEARCH

A study on Socio Demographic profile of mothers of children visiting NRC & IYCF Counselling Centre at Patna Medical College Hospital, Patna

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Abstract: Background: Maternal and under -five children malnutrition is not only a medical problem, but a social problem too. Malnutrition in childhood is a major risk factor for death and disability worldwide. The mothers visiting NRC, IYCF Counselling centre and OPD provides a golden opportunity to assess their nutritional status, counsel them and provide required nutritional interventions in order to improve their nutritional status. Material & Methods : This is a prospective

case control study done at the Department of Pediatrics, Patna Medical College and Hospital Patna. The relevant data collected in a record form having semi structured questionnaire. Socio demographic and health profiles of mothers of admitted children of SAM children were assessed by doing anthropometric measurement i.e. weight, height and mid upper arm circumference using adult MUAC tape. Results: A total of 650 mothers consisting 333 mothers of SAM children were included as Study group (Group -1) and 317 mothers of well nourished children as Control group (Group -2). Early marriage & even the utilization of free services available was very poor by mothers in study group .Discussion:- The Socio-economic status of the family has a direct relation to malnutrition in their children. . In study group 96% mothers belonged from BPL class while only 34% mothers were BPL in control group. This finding is significant ($P < 0.001$). Malnutrition has been associated with low maternal education in various studies too. The non-utilization of available free health services by the mothers in study group is a matter of great concern. Conclusion:- Maternal nutrition, their education, socio-economic background, age at first pregnancy and gap during subsequent pregnancies, utilization of health services all have consequences on the nutritional status of their babies. Mothers need much attention as a holistic approach starting from their rearing in childhood, proper formal education, marriage at appropriate time, spacing in between subsequent pregnancies, utilizing various Government schemes to uplift their socioeconomical status.

Key Words:- Maternal Malnutrition, socio economic status, Severe acute malnourished babies.

Introduction

Maternal and under -five children malnutrition is not only a medical problem, but a social problem too. Malnutrition in childhood is a major risk factor for death and disability worldwide¹. Poor family income, early marriage, lack of education, poor utilization of health services etc. play an important role in maternal malnutrition. Studies have associated malnutrition with maternal illiteracy, lack of education, lack of support in the home, mothers going back to work early and neglect². Poverty and low maternal education have also been identified as major determinants of malnutrition in Ghanaian Children^{1,3}. Childhood malnutrition accounts for almost one-fifth of global disease burden among children under five years old.³ In 2005, stunting, severe wasting, and intrauterine growth restriction

together were estimated to be responsible for 2.2 million deaths and 21% of loss of disability-adjusted life-years in children under five years old.¹

The mothers visiting NRC, IYCF Counseling centre and OPD provides a golden opportunity to address them, assess their nutritional status, counsel them and provide required nutritional interventions in order to improve their nutritional status. This study was done to assess the nutritional and socio- economical status of mothers and understand the underlying factors regarding maternal malnutrition and the effect/ association of maternal malnutrition on malnutrition of children less than 5 years of age. Patna Medical College being a tertiary care centre with a fully functional centre of excellence for Integrated Management of Severe Acute Malnourished children provides a golden opportunity to find the root cause of malnutrition in children.

Material Method

This is a prospective case control study done at the Department of Pediatrics, Patna Medical College and Hospital Patna, Bihar, India, from August 2017 to October 2018. The relevant data collected in a record form having semi structured questionnaire. Socio demographic and health profiles of mothers of admitted children of SAM children at NRC and the mothers of nutritionally normal babies attending the IYCF counseling centre and OPD at Patna Medical College Hospital Patna were assessed by doing anthropometric measurement i.e. weight, height and mid upper arm circumference using adult MUAC tape.

The anthropometric and social profiles of mothers of SAM babies were recorded which comprised Study Group and the relevant information and findings of mothers of nutritionally normal babies comprised Control Group. As in our centre nutritional care of mothers of admitted SAM babies are also taken by providing them good calorie nutritious diet, hence the mothers whose anthropometric measurements taken only during the first 2 days of admission were enrolled for study, otherwise not included in the study.

Prior consent for including them in the study was obtained from all mothers. No mother with a known cause for poor health like any heart disease, chronic lung disease, renal ailments, liver disease, chronic infection like Tuberculosis etc were included in the study. SAM babies were diagnosed using the WHO guidelines i.e.

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1.Weight(Kg)/height(Cm)(Z score) of <-3 SD &/ or 2.

Bilateral pitting edema &/ or

3. Mid Upper Arm Circumference <11.5 cm.

All anthropometric measurements were taken as per standard norms.

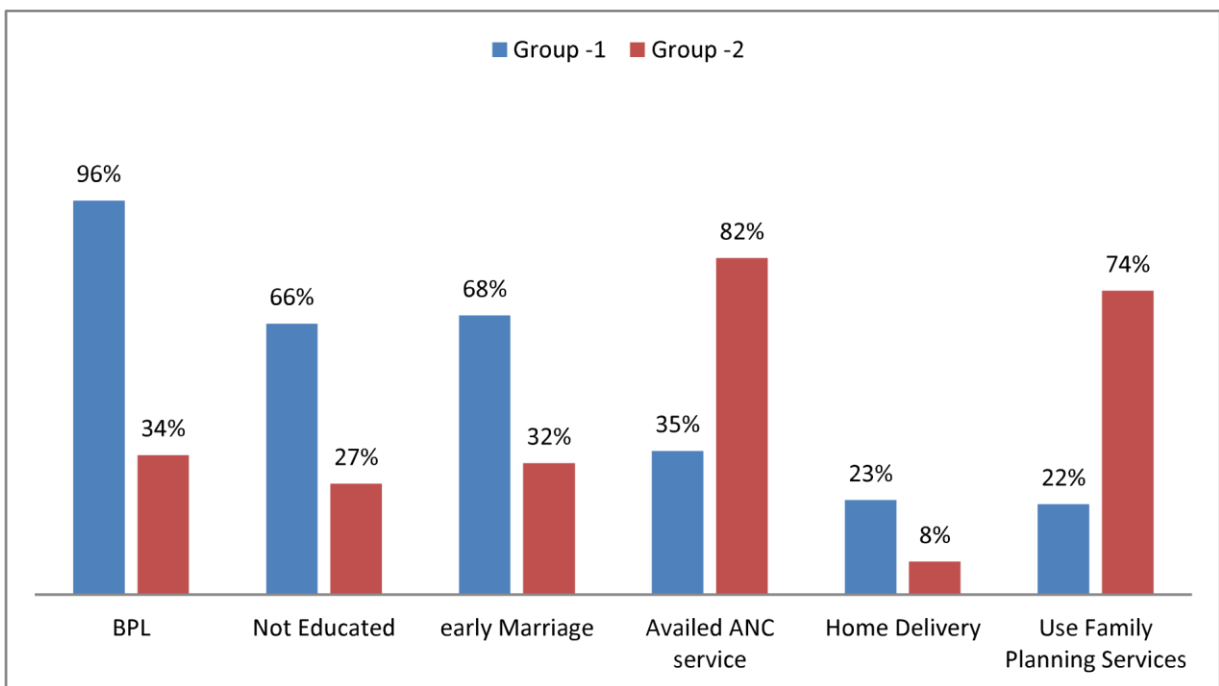
Results

A total of 650 mothers consisting 333 mothers of SAM children were included as Study group (Group -1) and 317 mothers of well nourished children as Control group (Group -2).

In our study 66% mothers were not educated in study group while even in control group 27% mothers were not educated. Malnutrition has been associated with low maternal education in various studies too ^{1,3}.

The non-utilization of available free health services by the mothers in study group is a matter of great concern.

Socio-Economic Profile



In study group 96% mothers belonged from BPL class while only 34% mothers were BPL in control group. Almost 66% mothers were not educated in Group-1, this figure was only 27% in Group-2. Early marriage (by 18 years) was observed in 68% mothers in study group, while only 32% mothers were married in the control group by 18 years of age. Even the utilization of free services available was very poor by mothers in study group. Only 35% mothers availed ANC services with 23% home delivery and only 22% utilized family planning services, while in Control group the figures are 82%, 08% and 74% respectively.

Discussion:-

The Socio-economic status of the family has a direct relation to malnutrition in their children. In study group 96% mothers belonged from BPL class while only 34% mothers were BPL in control group. This finding is significant ($P < 0.001$). Similar observation was made in studies from Nigeria, Malai & Ghana⁴, in which a statistically significant ($p < 0.001$) observation was observed. Therefore, interventions supporting economically poor families are likely to prevent malnutrition in children. This will not only improve maternal well-being but will ultimately protect against child mortality, which is strongly associated with malnutrition in this and other settings (MDG4).

In our study 66% mothers were not educated in study group while even in control group 27% mothers were not educated. Malnutrition has been associated with low maternal education in various studies too^{1,3}.

The non-utilization of available free health services by the mothers in study group is a matter of great concern. In our study it was observed that only 35% pregnancies were under regular ante natal checkup and institutional deliveries were conducted only in 77% cases. While in control group 82% pregnancies were under regular ante-natal check up with 92% institutional deliveries.

In a similar study in Nepal which has a cultural and socio-economical conditions very similar to our state (Bihar) it was observed by the authors that better socio-economic status, mother's age between 20-35 years, birth order up to second, birth spacing more than two years between two pregnancies, recommended exclusive breast feeding, early recommended supplementary foods, complete immunization and timely care seeking behaviors had positive effect on children nutrition status and also these variables were found statistically significant⁵.

Also in this study utilization of family planning services was observed in only 22 % families in Group-1, while in Group-2 it was 74%.

Conclusion:-

Maternal nutrition, their education, socio-economic background, age at first pregnancy and gap during subsequent pregnancies, utilization of health services all have consequences on the nutritional status of their babies. Mothers need much attention as a holistic approach starting from their rearing in childhood, proper formal education, marriage at appropriate time, spacing in between subsequent pregnancies, utilizing various Government schemes to uplift their socioeconomical status. Proper utilization of available health facilities must be availed by the mothers as the observations in control group that apart from education this parameter was very significant in combating the incidence of malnutrition in their children, must not be overlooked.

Key Message: Proper utilization of health facilities and maternal education are important for combating malnutrition in India .

Declaration: Dr. Anil Kumar Tiwari- Concept, strategy, data collection, statistical analysis and manuscript.

Dr. Anil Kumar Jaiswal- Supervision and guidance.

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Conflict of interest: None declared

Ethical approval: Study was approved by the Institutional Ethics Committee

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