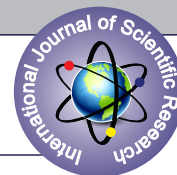


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AN EXPLORATORY STUDY ON PREVALENCE OF MALNUTRITION AMONG UNDER FIVE CHILDREN AND ITS RELATIONSHIP WITH MOTHERS' KNOWLEDGE AND PRACTICE RELATED TO CHILD'S NUTRITION IN A SELECTED RURAL AREA, UNAKOTI TRIPURA



Nursing

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ABSTRACT

Malnutrition is a critical health problem in many countries, including India. The main reason for this is incorrect dietary habits that lead to illness and infections in early childhood. Inadequate food intake can hinder the growth and development of children. Childhood malnutrition can impair psychological and intellectual development, which can subsequently result in low school performance and behavioral disturbances. Therefore, child nutrition is of utmost importance. **Aim:** The aim of the study is to assess the prevalence of malnutrition among under five children and its relationship with mothers' knowledge and practice related to child nutrition, in a selected rural area, Tripura. **Methodology:** In the present study, 207 mothers' of malnourished under five children were selected as study participants by non-probability convenience sampling technique. Data was collected by using survey Proforma to determine the prevalence of malnutrition among under five children, a structured knowledge questionnaire on child nutrition, and checklist used for assess practices. Descriptive statistics are used for statistical analysis. **Results:** Findings showed that, 54.47% of the under-five children had malnutrition. In risk factors, related to birth related risk factors- 99% of the mothers completed a minimum of 4 antenatal checkups during pregnancy, 99.5% of the mothers had taken iron and folic acid supplementation during pregnancy, etc. Related to breast feeding practices, of malnourished under five children which showed that, majority of the mothers i.e. 94.7% of the mothers was initiated the breast feeding immediately after birth, majority of the mothers i.e. 97.1% of the mothers are fed the first 3days yellowish colored milk to their child, etc. Related to health seeking behavior and dietary characteristics, of malnourished under five children which showed that, majority of the child i.e. 99% of the child is immunized up to age, majority of the child i.e. 97.1% of the child started animal source foods to the child like meat, fish, eggs and dairy etc. with the complementary feeding. More than half of the mothers i.e. 61.9% of the mothers have moderately adequate knowledge. Majority of the mothers i.e. 90.3% of the mothers have satisfactory practice. There was statistically significant association between knowledge of the mothers' of malnourished under five children with their selected demographic variables such as age of the malnourished child, Number of children, occupation of father and Type of family. **Conclusion:** The study concluded that, Mothers literacy status plays important role in feeding practices of their children which in turn is an important factor in determining the nutritional status of child. Although majority of the study participants had a malnutrition status and their mothers had moderately adequate knowledge, regular awareness programs could be conducted, and the nutritional status of children needs to be regularly monitored.

KEYWORDS

Prevalence of malnutrition, knowledge, practice, child nutrition, under five children.

INTRODUCTION

Malnutrition in early childhood is a significant public health concern, contributing to increased morbidity, mortality, and long-term developmental deficits. Globally, it remains a major obstacle to achieving Sustainable Development Goals related to health and poverty eradication. In India, while significant progress has been made, undernutrition among children under five years remains a persistent challenge, particularly in rural areas and among marginalized populations.

Mothers play a crucial role in child nutrition through their feeding practices, decision-making, and knowledge of nutritional requirements. A lack of awareness or adherence to recommended feeding practices can directly impact a child's nutritional status. Therefore, the purpose of this study is to investigate the prevalence of malnutrition among under-five children in a selected rural area in Unakoti, Tripura and its relationship with their mothers' knowledge and practices related to child nutrition.

In India about 2/3 portion of the under five children of our country is malnourished among them 5-8% is severely malnourished whole rest fall in the group of mild or moderate malnutrition. So it can be said that malnutrition one of the most-wide spread conditions affecting child health.

Currently 1077 Nutrition rehabilitation centers have been set up in India to provide medical and nutritional care to severe acute malnutrition children who are Under- 5 years of age. During 2019-20, 2.25 lakh and 2020-21, 1.04 lakh sick severe acute malnutrition children received treatment in 1072 Nutrition rehabilitation centers.17

Objectives Of The Study:

1. To assess the prevalence of malnutrition among under five children.
2. To explore the risk factors of malnutrition among malnourished

under five children.

3. To assess the knowledge related to child's nutrition among the mothers of malnourished under five children.
4. To assess the practice related to child's nutrition among the mothers of malnourished under five children.
5. To find out the association between the knowledge of the mothers' of the malnourished under five children with their selected socio demographic variables.
6. To develop and disseminate information booklet on prevention of malnutrition

Hypothesis: H1: There is a association between the knowledge of the mothers' of malnourished under five children with their selected socio-demographic variables.

Research Methodology:

Research Approach: This study adopted a quantitative research approach

Research Design: The study employed a **non-experimental exploratory research design**, which is suitable for understanding phenomena without manipulating variables. This design helped generate hypotheses and provided insights into malnutrition prevalence and maternal practices in the study area.

Setting Of The Study: The research was conducted in **Jibontilla, Manuvalley Gram Panchayat**, Unakoti Tripura, a rural area chosen for its accessibility and relevance to the study objectives.

Population: The population included mothers of malnourished under-five children:

- **Target Population:** All mothers of malnourished under-five children in the Unakoti district, Tripura.
- **Accessible Population:** Mothers from Jibontilla, Manuvalley Gram Panchayat, who met inclusion criteria.

Sample and Sample Size: The sample consisted of **207 mothers** of malnourished under-five children. The sample size was determined using statistical calculations to ensure sufficient representation for meaningful analysis.

Sampling Technique: A **non-probability convenience sampling technique** was employed to select participants who were readily available and met eligibility criteria.

Criteria For Sample Selection

- **Inclusion Criteria:** Mothers of malnourished under-five children, willing to participate, and available during data collection.
- **Exclusion Criteria:** Mothers with children suffering from physical or mental illnesses.

Development and Description of Tools

Data collection tools were developed based on study objectives, expert validation, and literature reviews. The tools included:

- **Section A:** Survey proforma to determine malnutrition prevalence.
- **Section B:** Demographic proforma with 16 items.
- **Section C:** Checklist for assessing malnutrition risk factors (24 items).
- **Section D:** Structured knowledge questionnaire on child nutrition (16 items).
- **Section E:** Checklist for maternal practices regarding child nutrition (18 items).

Pilot Study

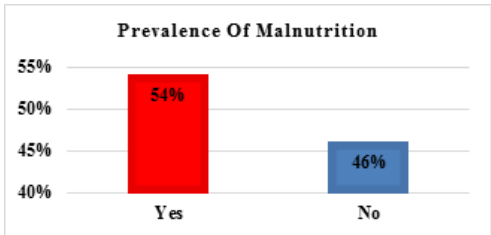
A pilot study was conducted from **January 3 to January 7, 2024**, in Rabontilla, involving 20 participants. It validated the feasibility and reliability of the tools, confirming their suitability for the main study.

Ethical Considerations: Ethical approval was obtained from the **Tripura Institute of Paramedical Sciences** ethics committee. Permissions were secured from authorities, and informed consent was obtained from participants, ensuring confidentiality and voluntary participation.

Procedure for Data Collection: Data were collected from **January 10 to January 18, 2024**, using a semi-structured questionnaire. Participants were selected based on inclusion criteria and were briefed about the study's purpose. Data collection tools assessed demographic characteristics, malnutrition risk factors, and maternal knowledge and practices.

Development and Distribution of Information Booklet: An **information booklet** was prepared to enhance maternal knowledge about child nutrition and malnutrition prevention. Developed with expert validation, the booklet used simple language and illustrations. It was distributed to mothers identified as having inadequate knowledge or unsatisfactory practices after data collection.

RESULTS:



Demographic Key Findings Of The Study:

The study revealed that 82.1% of mothers were aged 18-26 years, and 17.9% were 26-35 years. Regarding birth order, 51.2% had first-order children. The ages of malnourished children ranged from 1-5 years, with the highest percentage (27.53%) in the 2-3 years group. Most families (56%) had two children, and 57% of the children were female. All mothers lived with their partners, 50.2% had no formal education, and 68% were daily workers. Fathers predominantly had no formal education (57.5%) and worked as daily laborers (93.7%). Most families earned Rs. 5000-8000 monthly, were Hindu (100%), and nuclear (97.6%). All participants were non-vegetarian, and 69.1% introduced complementary feeding at 5-7 months.

Regarding birth-related risk factors among malnourished under-five

children. Key findings include: 99% of mothers completed at least four antenatal checkups, and 99.5% took iron and folic acid supplements during pregnancy. However, 35.7% suffered from anemia, and 12.6% experienced complications. Most deliveries were full-term (88.4%), with 72.9% of children weighing 2.5 kg or above at birth. Additionally, 51.7% of children were firstborn.

Regarding breastfeeding practices among malnourished under-five children. Key observations include: 91.3% of children were given pre-lacteal feeds at birth, while 94.7% had breastfeeding initiated immediately. Only 14% received exclusive breastfeeding for six months, and 97.1% were fed colostrum. Complementary feeding was introduced after six months for 63.3%, and 83.1% continued breastfeeding for two years or beyond. Additionally, 77.3% of mothers supervised their child while eating. Breastfeeding-related issues were reported by 5.8% of mothers.

Table 1: Mean, mean percentage and standard deviation of knowledge and practice related to child's nutrition.

Variables	Range	Mean	Mean %	SD
Knowledge related to child's nutrition	(0-16)	9.07	56.7	2.04
Practice related to child's nutrition	(0-17)	11.03	64.9	1.23

Table. 2 Item wise frequency and percentage distribution of the practice related to child's nutrition.

S N.	Practice (Statements)	Yes (%)	No (%)
1	Supplementary food provided (smashed potatoes, rice, khichdi, banana, etc.)	99	1
2	Child fed carbohydrate-rich foods (rice/roti/khichdi)	100	0
3	Milk/milk products provided	14	86
4	Ghee added to the child's diet	5.3	94.7
5	Iodized salt used for cooking	95.2	4.8
6	Fruits provided regularly	14.5	85.5
7	Vegetables provided (carrot, beet, leafy greens, etc.)	78.3	21.7
8	Iron-rich foods (spinach, jaggery, nuts, etc)	25.6	74.4
9	Child hydrated adequately	93.2	6.8
10	Boiled articles used for baby's feed	6.8	93.2
11	Hands washed regularly before and after cooking/feeding	97.6	2.4
12	Hands washed before and after serving food	99	1
13	Home/kitchen cleaned regularly	97.6	2.4
14	Consulted doctor/health professionals for child's immunization	66.2	33.8
15	ORS administered during diarrhea	40.6	59.4
16	Sanitary toilets available at home	86.5	13.5
17	Child dewormed regularly	84.1	15.9

Regarding the association their socio-demographic there was a **significant association between knowledge of the mothers' of malnourished under five children with their selected demographic variables** like age of the malnourished child, number of children, occupation of father and type of family. So, null hypothesis (H01) related to above variables were rejected and research hypothesis (H1) was accepted.

CONCLUSION:

This research revealed that prevalence of malnutrition is a very common problem among under five children, and its relationship with mothers' knowledge and practice related to child's nutrition. This research revealed that there is a significant difference in knowledge score and practice among the mothers' of malnourished under-five children related to child's nutrition. The study statistically proved that there is an association between knowledge of the mothers' of malnourished under five children with their selected socio-demographic variables.

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