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Knowledge About Malnutrition Its Prevention and Control Among Mothers of Under Five Chidren in Rural Area

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Abstract

Background: Malnutrition remains a significant public health concern among children under five in India. A primary contributing factor is the inadequate knowledge of parents, especially mothers, regarding nutrition.

Objective: The study aimed to assess maternal knowledge regarding malnutrition, its prevention and control, and to explore its association with selected sociodemographic variables. The study was based on the Health Promotion Model (HPM) proposed by Nola J. Pender (1982; revised 2002).

Methods: A quantitative, non-experimental descriptive design was adopted. The study was conducted among 100 mothers of under-five children in a rural area using non-probability purposive sampling. Data were collected using a self-structured questionnaire assessing knowledge on malnutrition, its types, risk factors, prevention, and control. Statistical analysis included frequency, percentage, and Chi-square test.

Results: Out of 100 participants, 77% had average knowledge scores (score range 9–16). The mean knowledge score was 2.09 with a standard deviation of 0.473. Chi-square analysis showed no significant association between knowledge scores and sociodemographic variables such as age, education, occupation, family income, number of children, religion, type of family, type of food consumed, and duration of breastfeeding.

Conclusion: The study highlights the moderate knowledge levels of mothers regarding malnutrition. Enhancing awareness through targeted education programs is essential to improve child health outcomes and prevent malnutrition. These findings support integrating nutrition education into existing maternal and child health programs.

Keywords: Knowledge, Malnutrition, Prevention, Control, Mothers, Under-five children, Rural area.

Introduction

Children are the foundation of any nation's future. The under-five age group represents a critical developmental window. Malnutrition during this stage can result in irreversible physical and cognitive impairments. It arises from a web of interrelated factors, including poor dietary intake, infections, and socioeconomic challenges such as poverty, illiteracy, and lack of awareness.

Malnutrition compromises immunity, increasing vulnerability to infections, especially gastrointestinal and respiratory illnesses, and significantly contributes to childhood morbidity and mortality. Often, undernutrition is normalized in rural communities, as underweight or stunted children are perceived as typical.

Purpose of the Study

Child undernutrition remains a global concern and a major cause of morbidity and mortality. In India, over 3.3 million children are malnourished, with a significant proportion categorized as severely malnourished. Disruptions in nutritional services such as ICDS and mid-day meals, especially during school closures, further exacerbate the issue. This study aimed to assess maternal knowledge related to malnutrition, its prevention, and control, and to identify any associations with sociodemographic factors.

Materials and Methods

Research Design and Setting

A descriptive, non-experimental design was used. The study was conducted in rural areas among 100 mothers of under-five children using non-probability purposive sampling.

Instruments

A self-structured questionnaire was developed, consisting of multiple-choice questions covering basic concepts of malnutrition, causes, types, prevention, and control. Demographic variables included age, education, occupation, income, number of children, religion, family type, dietary pattern, and breastfeeding duration.

Data Analysis

Data were analyzed using descriptive statistics (frequency and percentage) and inferential statistics (Chi-square test) to explore associations between knowledge scores and demographic variables.

Results

Section 1: Knowledge Scores

- 77% of mothers had **average** knowledge (scores 9–16).
- Mean score: **2.09**, SD: **0.473**.

Section 2: Association with Sociodemographic Variables

Chi-square test revealed **no statistically significant association** between knowledge levels and variables such as:

- Age
- Educational status
- Occupation
- Family income
- Number of children
- Religion
- Family type
- Dietary habits
- Duration of breastfeeding

($p > 0.05$ in all cases; not significant)

Discussion

The study revealed that most mothers possessed **average knowledge** regarding malnutrition. This aligns with similar studies. For example:

- A study by **Kavitha (2015)** found that 50% had average knowledge, while 30% had poor and 20% good knowledge.

- Another study by **Ambupe (2020)** also reported **no significant association** between maternal knowledge and sociodemographic characteristics.

These findings suggest the need for community-based education and awareness campaigns to empower mothers and improve child nutritional outcomes.

Conclusion

Malnutrition is a leading cause of child morbidity and mortality in India. As primary caregivers, mothers' knowledge is essential for effective prevention and control. This study emphasizes the need for targeted interventions and awareness programs at grassroots levels to strengthen maternal understanding of nutrition and child care.

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