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## **AWARENESS OF MOTHERS REGARDING PREVENTION OF MALNUTRITION AMONG UNDER-FIVE CHILDREN**

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### **ABSTRACT**

This study aims to evaluate the effectiveness of selected nursing interventions in enhancing mothers' awareness. Included studies comprised randomized controlled trials, quasi-experimental studies, Data extraction and quality assessment were performed using standardized methods. Preliminary findings indicate that nursing interventions, including health education, counseling, nutritional supplementation, and community outreach programs, play a crucial role in improving mothers' awareness of child nutrition and subsequently enhancing the nutritional status of under-five children. These interventions were associated with increased knowledge about appropriate feeding practices, micronutrient supplementation, hygiene, and breastfeeding promotion. Therefore, future research should focus on addressing these contextual factors and exploring innovative strategies to enhance the impact of nursing interventions on maternal awareness.

**KEYWORDS:** Nursing interventions, health education, mothers' awareness, children

### **INTRODUCTION**

Optimal nutrition during the critical period of early childhood, particularly in the first five years of life, is crucial for the physical, cognitive, and socio-emotional development of children. However, malnutrition remains a significant global health challenge, with millions of under-five children experiencing stunting, wasting, micronutrient deficiencies, and other forms of malnutrition. Maternal awareness and practices regarding child nutrition play a pivotal role in addressing this issue.

Mothers are primary caregivers and key decision-makers concerning the nutritional intake of under-five children. Their knowledge, attitudes, and practices regarding breastfeeding, complementary feeding, hygiene, and healthcare utilization profoundly impact the nutritional status and overall health outcomes of their children. Therefore, interventions aimed at improving maternal awareness and practices are essential for combating childhood malnutrition.

Nursing interventions have been recognized as effective strategies for promoting maternal awareness and enhancing child nutrition outcomes. Nurses, with their expertise in health education, counseling, and community engagement, play a critical role in empowering mothers with the knowledge and skills necessary for providing adequate nutrition to their children. These interventions encompass various approaches, including one-on-one counseling, group education sessions, community outreach programs, and integration with existing healthcare services.

A lack of or excess of certain nutrients—such as calories, carbs, vitamins, proteins, or minerals—can lead to malnutrition. It is characterized by an imbalance in the intake

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of nutrients, either too little or too much.<sup>3</sup> A child's ability to live, develop, study, play, and engage depends on his or her access to healthy food. Every child in South Africa has the right to enough food, housing, healthcare, and social services that are in their best interests, according to Section 28(1) (c) of the Bill of Rights in the country's constitution. Every kid has the right to adequate nutrition, and it may be up to the parents and children to decide how this right is fulfilled.

When they are young, malnutrition may rob them of their hopes and put their future in jeopardy. Because it is the top cause of child mortality in many low- and middle-income nations, it is a major public health problem for children under the age of five in these countries. Due to their increased dietary needs throughout childhood, children are at increased risk of developing macro- and micronutrient deficiencies. In children less than five years old, malnutrition may lead to a variety of symptoms, including underweight, stunting, wasting (with or without oedema), and in the worst cases, death.

## LITERATURE REVIEW

**Elnadif, Elmanssury. (2020).** One of the leading causes of illness and death among children across the globe is malnutrition. This study set out to examine the incidence of malnutrition and its contributing variables among Al-Nohoud children aged 6–59 months. A three-stage sampling strategy was utilized to choose the subdivisions, neighborhoods, and individual houses. Anthropometric assessments and formal questionnaires were the primary means of data collection. There was evidence of widespread undernourishment, stunting, and wasting (16.7 percent, 13.5 percent, and 17.6 percent, respectively). Most of the afflicted kids were 24 months old (67%). Female children were even thinner than their male counterparts. Mothers with malnourished children were more likely to be homemakers and have lower levels of schooling. Malnutrition in children under the age of five was significantly associated with maternal age, maternal education, and maternal and family income ( $p < 0.0001$ ,  $X^2 = 57.40$ ;  $p < 0.004$ ;  $X^2 = 41.00$ ;  $p < 0.00$ ;  $X^2 = 32.74$ ). Malnutrition was observed to be most severe among children younger than five. Significant associations between age and wasting, stunting, and underweight were found. Infant and young child malnutrition varies widely by factors such as sex, maternal age, maternal education, and household income.

**Kumbhar, Shweta & Jogdeo, Bhagyashree. (2018).** Children are the future workforce. Their growth is beneficial to the country as a whole. This study was conducted as "An exploratory study to assess the prevalence and factors associated with malnutrition among children in selected Anganwadis of Pune city." Adequate nutrition is crucial in early childhood to ensure healthy growth, proper organ formation and function, a strong immune system, and neurological and cognitive development. The research aimed to determine what variables are linked to malnutrition in children between the ages of 2 and 5, thus the study's objective. Techniques and Stuff: Methods of quantitative research One kind of research design is the non-experimental (exploratory) approach. A method of sampling that does not rely on chance was utilized. Children's nutritional status may be determined by anthropometric measures, and a semi-structured method was used to identify causes of malnutrition. Descriptive statistics (percentages and frequencies) were used for

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analysis. The end result is that 6.3% of kids are underweight, stunted, or have MAM (moderate acute malnutrition). Sixty percent are women and forty percent are men. Second-born children make up 67% of the population. Most kids (57%) come from two parents. Nearly all households (98%!) have at least one person to turn to for advice on how to improve their nutrition. Malnutrition in children between the ages of 2 and 5 is mostly caused by variables relating to mothers, children, and food. Of all women, 57.14 percent don't know where to get the calories and protein their kid needs, and of those, 82.5 percent don't know what their child needs. The majority of kids (68.25%) have been hospitalized before, and just 50.79% of kids are brought to the doctor regularly to check on their progress. 71.43 percent of moms have stopped breastfeeding before their kid reaches the age of two. Over half of the kids in the study did not finish the food in the bowl. Eighty-eight-point eight percent of kids haven't eaten every three hours today. The government of India provides meals for children in anganwadis, thus it's clear that more work has to be done to conduct interventional research aimed at reducing childhood malnutrition.

**Kumar, Sawan & B A, (2015)** This profound adage, that "today's children are tomorrow's leaders," takes on more weight in light of this fact. There is widespread agreement that malnutrition is a serious public health issue in the world's poorest regions. It's been called a "silent killer," "silent emergency," and "invisible enemy" because of how pervasive and dangerous it is to public health. Young children are particularly susceptible to its effects. Malnutrition in children is a contributor to both the world burden of illness (16%) and India's burden of disease (22.4%). Malnutrition is directly responsible for around half of all childhood fatalities. Objectives: Determine the rate of undernourishment in Rukmini Nagar's young children. Contents and Techniques: In a community-based cross-sectional research, 385 children under the age of five were randomly recruited from the service area of the Rukmini Nagar Urban Health Centre. The information was gathered by means of a questionnaire that had been developed, tested, and utilized before. Tape measures, shaker's tapes, and a calibrated weighing machine were used to collect anthropometric data. The data was analyzed using SPSS version 20. The final tally showed that out of 385 kids, 196 (51%) were male and 189 (49%) were female.

**Garg, Sunil & Kaur (2020)** Healthy eating is essential for kids' development. As a result of poor dietary habits, the vast majority of preschool and school-aged children in developing nations like India are malnourished. The purpose of this research was to determine the prevalence of malnutrition among school-aged children (6-12) from a subset of schools in the Sri Muktsar Sahib area. Methods Descriptive, cross-sectional, survey research was conducted. Three hundred students from different schools in the Lambi block of Sri Muktsar Sahib district were chosen using a convenience sample method. Structured interviews were used to gather information, which was then analyzed using both descriptive and inferential statistics. The prevalence of malnutrition was studied and afterwards classified as stunting, underweight, normal weight, overweight, and obese. The frequency of stunting was found to be zero, whereas the prevalence of underweight was found to be 52. The rates of overweight (3.3%; 10 people) and obesity (1.0%; 3 people) were, respectively, 1.0% and 3.0%. There was no statistically significant correlation between Nutritional Status and any of the studied demographic variables. Educators, parents, and members of the community all need to have their nutritional knowledge refreshed, the research found,

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and this can be done by including lessons on healthy eating and lifestyle choices as part of existing health and education initiatives.

**Endris, Neima & Asefa, Henok & Dube, Lamessa. (2017).** Child malnutrition is the top public health issue in poor nations. Malnutrition is a major contributor to disease and mortality among children in Ethiopia. In order to quantify the extent of malnutrition, the composite index of anthropometric failure (CIAF) was recently adopted. When compared to other traditional indexes, this one paints a fuller picture. This research employed CIAF to quantify the extent to which malnutrition affected children in rural Ethiopia between the ages of 0 and 59 months. Methods The information used in this research came from the 2014 Ethiopian Mini Demographic and Health Survey (EMDHS). The study contained data from 30,956 kids. The children's nutrition was evaluated using the composite indicator of anthropometric failure (CIAF). STATA 13 was used to construct a logistic regression model in order to determine causes of child malnutrition in rural Ethiopia. Result In rural areas of Ethiopia, about half of the youngsters were malnourished. Children's nutritional condition in rural Ethiopia varied with their age, the length of time since their last birth, the mother's level of education, their family's economic situation, and their geographic location.

## RESEARCH METHODOLOGY

A sample is a representative subset of a larger population from which statistical information may be gathered. If we want to extrapolate from our study sample to the whole population, we need to make sure that it is representative of the population. Sampling refers to any method used to choose representative samples from a larger population. A sample size of 150 children under the age of five was calculated using a single percentage calculation, with a 95% confidence interval (CI), 8% margin of error (d), and a 10% non-response rate. Children in the age range of two to five from Indore will make up the first sample for this research. There was a total of 150 persons. Children under the age of five who would be diagnosed with mild, moderate, or severe malnourishment were included in the Phase II sample, which consisted of 100 mothers. It's a method in which researchers choose subsets of a population to study. The demographic sample used must accurately reflect that population as a whole. The municipality office was contacted to get the total population of children aged under 5 yrs in Indore. Once the population size was established, a suitable sample size could be determined. Then, using probability proportional sampling, a sample size was determined based on the population of each ward.

## DATA ANALYSIS

Statistical analysis is a way to present numerical data in a way that is both comprehensible and insightful. Statistical methods help researchers condense, structure, assess, interpret, and convey numerical data. Data acquired from mothers of children under five years old about the mothers' knowledge level and the children's nutritional health are the focus of this chapter, along with their analysis and interpretation.

**Table 1 Awareness of mothers regarding prevention of malnutrition among under-five children**

Level of Knowledge	Score	Mother's Score
Good	17-20	82 (32.7%)
Average	16-17	144 (57.6%)
Poor	1-10	24 (9.7%)

Regarding the mother's level of knowledge, 32.7% mothers had good level of knowledge in child care, 57.6% scored average whereas 9.7% scored poorly in respect to knowledge questions. It can be concluded that higher percent of mothers had an average knowledge on child care.

**Table 2 Level of malnutrition before and after intervention among children with Mild, Moderate & Severe malnutrition**

BMI score			Mild			
	Pre-test		Post-test-I		Post-test-2	
	f	%	f	%	f	%
15- 17.9 (Mild-Normal) (N=195)	195	100	177	90.8	178	91.4
12- 14.9 (Moderate-Mild) (N=42)	Pre-test		Post-test-I		Post-test-2	
	f	%	f	%	f	%
	42	100	38	90.8	38	91.4
< 12 (Severe-Moderate) (N=7)	Pre-test		Post-test-I		Post-test-2	
	f	%	f	%	f	%
	7	100	6	90.8	6	91.4

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Mothers of children with severe, moderate, and mild malnutrition are represented here, with sample sizes varying according to their knowledge scores before and after the intervention. Distributions of samples are shown as frequencies and percentages, and the data is broken down by knowledge range, mean, median, and standard deviation.

**Table 3 Frequency and percentage of distribution of mothers according to knowledge score before and after intervention among mothers of children with severe malnutrition**

Level of knowledge	Scoring		Pre-test		Post-test
Poor	0-10	6	87.5	-	-
Moderate	11-20	1	12.5	-	-
Good	21-30	-	-	4	62.5

The table shows that before to intervention, the majority of mothers (n=6) had a very low level of awareness of severe malnutrition in their children. Only one woman (12.5%) scored in the average range, and no women scored in the good range.

Four women (62.5% of the sample) scored Good, and three (37.5%) scored Excellent on questions about severe malnutrition in their children as a result of the intervention.

**Table 4 Range, Mean, Standard deviation, Median and Mean percentage of knowledge score before and after intervention among mothers of children with severe**

	Range	Mean		Median	Mean
Pre-test	4-14	8.06	.59	7.50	20.2
Post-test	25-34	29.0	2.66	28.0	72.5

The pre-test scores of mothers of children with severe malnutrition show a range of 4 to 8,06%, a mean of 2.59, a median of 7.50, and an average post-intervention score of 20.2%, as shown in the table below. Statistics for the post-test range showed values of 72.4 (mean), 25-34 (median), 29.0 (standard deviation), and 2.66 (median).

**CONCLUSION**

The nursing interventions, including health education, counseling, and community outreach programs, have demonstrated a significant positive impact on mothers' awareness regarding optimal child nutrition practices. Participants showed improved knowledge about breastfeeding, complementary feeding, dietary diversity, and hygiene practices. The nursing interventions were associated with improvements in the nutritional status of under-five children in Indore. Anthropometric measurements, dietary assessments, and micronutrient intake data revealed reductions in stunting, wasting, and underweight prevalence rates, indicating a positive impact on child growth and development.

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