



A STUDY TO ASSESS THE EFFECTIVENESS OF A STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING NUTRITIONAL DEFICIENCY DISORDERS AMONG MOTHERS OF UNDER- FIVE CHILDREN IN SELECTED ANGANWADI CENTRES AT THAVANAMPALLI MANDAL, CHITTOOR (DIST) ANDHRA PRADESH”

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Abstract: Nutrition plays a vital role in the growth and development of under-five children. Adequate nutrition during early childhood helps in maintaining good health, preventing illnesses, and supporting normal physical and mental development. Nutritional deficiency disorders such as anemia, protein-energy malnutrition, vitamin and mineral deficiencies are commonly seen among under-five children, especially in rural areas. Mothers are the primary caregivers and their knowledge regarding nutrition is essential in preventing these disorders. Providing proper health education can help mothers understand the importance of balanced diet and early prevention of nutritional deficiencies.

Keywords : Nutritional Deficiency Disorders, Mothers of Under-Five Children, Effectiveness, Under-Five Children, Anganwadi Centres

I. INTRODUCTION

Nutrition during the first five years of life is absolutely foundational to a child's long-term health, development, and well-being. This period from birth through the toddler years to early childhood is characterised by rapid physical growth, brain development, and the maturation of the immune system. Adequate intake of macronutrients (protein, carbohydrates, fats) and essential micronutrients (iron, vitamins, iodine, calcium, etc.) is vital during this critical window; deficiencies or imbalanced diets can hamper normal growth, weaken immunity, impair cognitive and motor development, and increase the risk of morbidity and mortality.

Globally, under-nutrition remains a substantial challenge in many low- and middle-income countries (LMICs), contributing significantly to child morbidity, mortality, and impaired developmental

potential. In these contexts, childhood under-nutrition and micronutrient deficiencies frequently persist not just as issues of food supply or poverty alone, but also due to inadequate knowledge about optimal feeding practices, dietary diversity, and early detection of deficiency disorders. In India despite various national and state-level nutritional programs malnutrition among under-five children remains pervasive. Factors contributing to persistence of nutritional disorders include poverty, food insecurity, poor sanitation, infectious diseases, and perhaps importantly, limited awareness among caregivers about nutritional requirements, weaning practices, appropriate complementary feeding, and signs of deficiency.

Mothers, as primary caregivers, occupy a central position in shaping child feeding practices, hygiene, health-seeking behaviour, and overall child care. Multiple studies have shown a strong association between a mother's nutritional knowledge (or education) and the nutritional status of her children. For instance, mothers with better awareness are more likely to adopt optimal feeding practices early and exclusive breastfeeding, timely and appropriate complementary feeding, dietary diversity, hygienic food preparation, and recognition of deficiency symptoms leading to better growth and lower rates of malnutrition.

Moreover, maternal education whether formal schooling or structured nutritional education has been linked to improvements in child health outcomes, including reduced stunting, underweight, wasting, and morbidity. This indicates that enhancing mothers' knowledge and awareness is a viable, cost-effective strategy to improve child nutrition, especially in resource-poor, rural settings.

In many rural communities, however, there are multiple barriers: lack of access to health/nutrition services, socio-economic constraints, cultural feeding practices, insufficient support for mothers, inadequate follow-up, and sometimes deficits in the quality or frequency of nutrition education. In contexts like rural areas of Thavanampalle Mandal (in Chittoor District, Andhra Pradesh), where caregivers may have limited formal education and limited exposure to updated nutrition knowledge even with the presence of government-run childcare and nutrition services (through Integrated Child Development Services there remains a real risk that nutritional deficiency disorders continue unchecked.

Given this situation, structured teaching programmes carefully designed, context-appropriate educational interventions emerge as a critical tool. Such programmes can systematically deliver information about importance of balanced diet in early childhood, recommended feeding practices (breastfeeding, complementary feeding), dietary diversity, hygiene, micronutrient needs, and the identification of deficiency symptoms. Empirical evidence supports that nutrition education administered to mothers can significantly improve their knowledge, attitudes, and feeding practices, and in many cases lead to measurable improvements in children's nutritional status and cognitive development.

Therefore, strengthening mothers' understanding through structured teaching is not just beneficial but essential. By equipping mothers with accurate knowledge and practical guidance, we can hope to reduce prevalence of nutritional deficiency disorders, improve growth and development outcomes among under-five children, and contribute to healthier childhood and adulthood trajectories. This underlines the urgent need for research assessing the effectiveness of structured teaching programmes targeted at mothers, especially in rural Anganwadi contexts such as Thavanampalli Mandal.

II. METHODOLOGY

This study was conducted among 60 mothers in a quantitative, one group Pre-test and Post-test research design using purposive sampling-technique. Knowledge level was assessed using Pre-test and then conducted structured teaching programme, Demographic variables are analysed with descriptive statistics (percentage, mean, standard deviation) and assessed the levels of knowledge regarding nutritional deficiency disorders among mothers of under-five children with demographic variables by inferential statistics (paired with 't' test and chi-square.). After 3 weeks of administering the structured teaching programme, post test was conducted using same questionnaire.

Sampling Technique

Sampling technique refers to the process of selecting a subset of the population to obtain information regarding a phenomenon in a way that represents the entire population. Non- probability purposive sampling technique was used. The participants were selected based on inclusion criteria.

Sampling Criteria

Sampling criteria are the predetermined attributes or conditions that individuals must meet to qualify for inclusion in the target population. These criteria ensure that the selected participants accurately reflect the essential characteristics required for the study objectives.

Inclusion Criteria

- Mothers having children below five years of age.
- Mothers who are available at the time of data collection.
- Mothers who are willing to participate in the study.

Exclusion Criteria

- Mothers who are not willing to participate in the study.
- Not accessible during data collection.
- Mothers who are healthcare professionals.

III . INSTRUMENTS USED FOR DATA COLLECTION

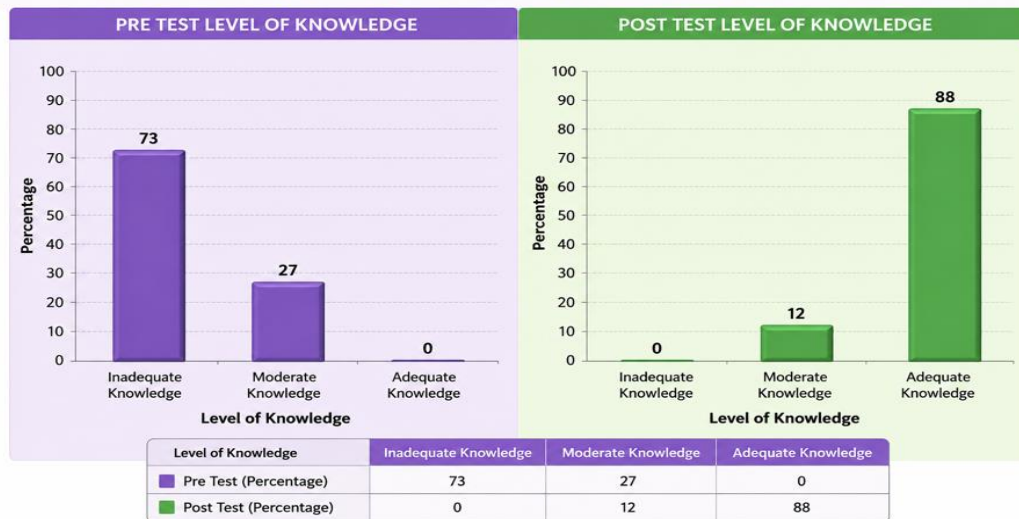
The research tool is an instrument that serves as the primary means of collecting reliable data and deriving meaningful conclusions. In accordance with the objectives of the present study, A self-structured questionnaire prepared by the researcher under the guidance of experts in English and Nutritional department. A questionnaire is drafted for the purpose, and the relevant data was conducted from the sample knowledge and attitude questionnaire regarding nutritional deficiency disorders.

IV . RESULT

Percentage distribution of the respondents according to their knowledge

S.No	Level of Knowledge	Pre test		Post test	
		Frequency	Percent	Frequency	Percent
1	Inadequate	44	73.00	0	0.00
2	Moderate	16	27.00	07	12.00
3	Adequate	0	0.00	53	88.00
	Total	60	100.00	60	100.00

COMPARISON OF PRE TEST AND POST TEST LEVEL OF KNOWLEDGE



Inference

The above data shows that “Level of Knowledge – Pre-test and Post-test” Before the intervention the majority of the mothers (73%) had inadequate knowledge, while 27% had moderate knowledge and none of the participants demonstrated adequate knowledge. However, after the intervention, there was a significant improvement, as 53(88%) population having adequate knowledge, 7(12%) population having moderate knowledge and 0(0%) population having inadequate knowledge.

This indicates that the educational intervention was highly effective, resulting in a marked increase in students' knowledge levels.

V . DISCUSSION

The purpose of the present study was to assess the knowledge regarding selected nutritional deficiency disorders among mothers of under-five children and to evaluate the effectiveness of a structured teaching programme in improving their knowledge. Adequate maternal knowledge plays a vital role in the prevention and early management of nutritional deficiency disorders in under-five children. The discussion of the present study is based on the findings obtained from statistical analysis of the collected data and is presented according to the objectives of the study.

VI . RECOMMENDATIONS

- Similar studies can be conducted on a larger sample to enhance generalizability.
- A comparative study can be conducted between rural and urban mothers.
- Experimental studies can be conducted to evaluate the long-term effectiveness of structured teaching programmes.
- Similar studies can be conducted among caregivers of children in different age groups.
- Studies can be conducted to assess the impact of repeated educational interventions on maternal knowledge and practices.

CONCLUSION

Among 60 mothers of under-five children, pre-test knowledge regarding selected nutritional deficiency disorders was predominantly inadequate. Following the structured teaching programme, knowledge improved significantly, with most mothers achieving adequate knowledge. A significant association was found between pre-test knowledge and the mother's occupation and place of residence ($p < 0.05$), while no significant association was observed between post-test knowledge and demographic variables, indicating the programme was effective regardless of demographic characteristics.

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