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EFFECTIVENESS OF SELF INSTRUCTION MODULE ON KNOWLEDGE REGARDING VITAMIN A PROPHYLAXIS AMONG THE MOTHERS OF UNDER-FIVE CHILDREN AT SELECTED PHC IN TUMKUR

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ABSTRACT

Introduction: *Vitamin A deficiency remains a major public health problem, particularly among under-five children, leading to increased risk of morbidity, mortality, and preventable blindness. Many mothers lack adequate awareness regarding the importance of Vitamin A prophylaxis. Educating mothers through effective methods can help in improving their knowledge and practices to safeguard their children's health. This study aimed to assess the effectiveness of a self-instruction module on knowledge regarding Vitamin A prophylaxis among the mothers of under-five children at a selected PHC in Tumkur, Karnataka.* ***Objective:*** *The main objective of the study was to evaluate the effectiveness of a self-instruction module on the level of knowledge regarding Vitamin A prophylaxis among the mothers of under-five children.* ***Methodology:*** *A quantitative research approach was used. The design adopted for the study was pre-experimental with one group pre- and post-test design. Purposive sampling technique was used to select 60 mothers of under-five children at a selected PHC in Tumkur.* ***Results:*** *The mean post-test knowledge score (16.40) after administration of the self-instruction module was higher than the mean pre-test score (9.25). The calculated t-test value (10.92) indicated a significant difference in knowledge levels at $p < 0.05$ level. There was no significant association between the pre-test knowledge scores of mothers regarding Vitamin A prophylaxis and their selected demographic variables.* ***Conclusion:*** *The study findings revealed that the self-instruction module was effective in enhancing the knowledge of mothers regarding Vitamin A prophylaxis for their under-five children.*

Keywords: *Self-Instruction Module, Vitamin A Prophylaxis, Knowledge, Mothers of Under-Five Children, Primary Health Centre.*

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INTRODUCTION

In today's world, the health of under-five children remains a critical concern, particularly in developing countries. Among the various nutritional deficiencies, Vitamin A deficiency is one of the most common, contributing significantly to childhood morbidity, mortality and preventable blindness. Poor dietary intake, lack of awareness and irregular supplementation are key factors responsible for the persistence of Vitamin A deficiency among children.

Vitamin A plays an essential role in maintaining normal vision, immunity, and growth. Deficiency in children can lead to night blindness, xerophthalmia, reduced resistance to infections and in severe cases, death. The World Health Organization (WHO) and the Government of India recommend periodic Vitamin A supplementation as a prophylactic measure to prevent these complications.

Despite such initiatives, awareness about Vitamin A prophylaxis among mothers of under-five children remains inadequate. Many mothers are unaware of the schedule, dosage and benefits of Vitamin A supplementation, which affects compliance and ultimately impacts child health.

Mothers play a vital role in ensuring the health of their children. Their knowledge about Vitamin A prophylaxis directly influences their health-seeking behaviours and compliance with supplementation programmes. Hence, educating mothers through structured educational strategies is necessary to bridge this knowledge gap.

In addition, community-level interventions play an equally important role in sustaining awareness and improving compliance. Health education sessions conducted at Anganwadi centres or primary health centres can serve as effective platforms to reach mothers directly. Similarly, home visits by health workers provide an opportunity for personalized guidance, where doubts can be clarified and mothers encouraged to adhere to supplementation schedules.

Furthermore, integrating Vitamin A awareness into existing maternal and child health programmes can create a more holistic approach. When information is consistently reinforced through multiple channels—health professionals, community workers, and structured educational materials—mothers are more likely to retain knowledge and practice it. Such comprehensive strategies not only improve awareness but also promote sustainable behavioural changes that contribute to long-term child health outcomes

Self-Instruction Modules (SIMs) are effective educational tools that provide systematic, self-paced and easy-to-understand information. By using SIMs, mothers can enhance their knowledge and recall information whenever required, thus promoting better health practices.

This study aimed to assess the effectiveness of a self-instruction module on knowledge regarding Vitamin A prophylaxis among mothers of under-five children at a selected PHC in Tumkur.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of a self-instruction module on knowledge regarding Vitamin A prophylaxis among mothers of under-five children at a selected PHC in Tumkur.

OBJECTIVES

- To assess the pre- and post-test levels of knowledge regarding Vitamin A prophylaxis among mothers of under-five children.
- To evaluate the effectiveness of a self-instruction module on knowledge regarding Vitamin A prophylaxis among mothers of under-five children.
- To associate the pre-test level of knowledge regarding Vitamin A prophylaxis among mothers of under-five children with their selected demographic variables.

MATERIALS AND METHODS

Study Design

Research design adopted for this study was pre-experimental with one group pre- and post-test design.

Sample

Mothers of under-five children who fulfilled the inclusion criteria and attended the selected PHC in Tumkur.

Sample Size

The sample size was 60 mothers of under-five children.

Sampling Technique

Purposive sampling technique was adopted for this study. From the total population the investigator selected sixty (60) samples who met inclusion criteria.

Study Setting

The study was conducted at a selected Primary Health Centre (PHC) in Tumkur in Karnataka state.

Criteria for Sample Selection

Inclusion Criteria

1. Mothers of under-five children who are willing to participate in the study.
2. Mothers who were available during the data collection period.

Exclusion Criteria

1. Mothers who were not willing to participate in the study.
2. Mothers who had attended any previous educational programme on Vitamin A prophylaxis.

Development and Description of the Tool

The tool consisted of two major sections designed to gather comprehensive information from the participants.

Section A: Demographic Data – This section focused on collecting baseline information about the mothers of under-five children. It included variables such as age, educational qualification, occupation, religion, and monthly family income, which help in understanding the socio-economic and cultural background of the respondents. Additionally, data regarding the number of children and the source of health information (such as health workers, mass media, family, or community networks) were obtained. These variables were considered important, as they may influence the level of awareness and health-seeking behaviour related to Vitamin A prophylaxis.

Section B: Structured Knowledge Questionnaire – This section was specifically designed to assess the knowledge of mothers regarding Vitamin A prophylaxis. The questionnaire consisted of multiple items covering various aspects such as the importance of Vitamin A, its role in child health, the recommended dosage, schedule of supplementation, and possible consequences of deficiency. The tool was structured to ensure clarity, simplicity, and relevance, enabling mothers to respond without difficulty. The responses provided valuable insight into the existing knowledge levels and highlighted areas where educational interventions were required.

FINDINGS

Table .1 Comparison of pre-test and post-test knowledge scores on Vitamin A prophylaxis among mothers of under-five children.

Sl. No.	Group	Level of Knowledge			T-Value
		Mean	Standard Deviation	Degree of freedom	
1.	Pre-test	9.25	4.10	59	10.92 S
2.	Post-test	16.40	3.85		

The mean value of post-test knowledge after administration of the self-instruction module was 16.40, which was higher than the pre-test mean value of 9.25. The calculated paired t-test value was 10.92, indicating a significant difference in the effectiveness of the self-instruction module at $p < 0.05$ level. The difference between pre- and post-test scores showed that the self- instruction module was effective in improving knowledge regarding Vitamin A prophylaxis among mothers of under-five children. Hence, the research hypothesis stating that "There is a significant difference between the pre- and post-test levels of knowledge regarding Vitamin A prophylaxis among mothers of under-five children" was accepted.

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Table 1. Association between pre-test knowledge levels and selected demographic variables of mothers of under-five children.

Sl. No.	Demographic Variables		Pre-test Level of Knowledge										X^2
			Very Poor		Poor		Average		Good		Very Good		
			F	%	F	%	F	%	F	%	F	%	
1.	Age (years)	Below 20 years	1	1.67	4	6.67	2	3.33	1	1.67	1	1.67	5.35 DF=12 P=0.40 NS
		21 – 25 years	3	5.00	7	11.67	4	6.67	1	1.67	1	1.67	
		26 – 30 years	2	3.33	10	16.67	4	6.67	1	1.67	0	0	
		> 30 years	4	6.67	7	11.67	5	8.33	2	3.33	0	0	
2.	Education	No formal Education	2	3.33	5	8.33	3	5.00	0	0	0	0	6.70 DF=16 P=0.97 NS
		Primary education	4	6.67	7	11.67	5	8.33	1	1.67	0	0	
		Secondary Education	1	1.67	4	6.67	2	3.33	1	1.67	0	0	
		Higher Secondary	1	1.67	7	11.67	3	5.00	2	3.33	1	1.67	
		Graduate & above	2	3.33	5	8.33	2	3.33	1	1.67	1	1.67	
3.	Occupation	Housewife	2	3.33	7	11.67	4	6.67	3	5.00	1	1.67	15.26 DF=16 P=0.50 NS
		Daily wage worker	2	3.33	13	21.67	5	8.33	0	0	0	0	
		Private employee	1	1.67	3	5.00	3	5.00	1	1.67	1	1.67	
		Govt. Employee	3	5.00	2	3.33	1	1.67	0	0	0	0	
		Self-employed	2	3.33	3	5.00	2	3.33	1	1.67	0	0	
4.	Religion	Hindu	4	6.67	19	31.67	6	10.00	4	6.67	2	3.33	7.13 DF=12 P=0.84NS
		Christian	5	8.33	7	11.67	7	11.67	1	1.67	0	0	
		Muslim	1	1.67	2	3.33	2	3.33	0	0	0	0	
		Others (specify)	0	0	0	0	0	0	0	0	0	0	
5.	Monthly Family Income	≤ 10000	2	3.33	7	11.67	3	5.00	0	0	0	0	5.41 DF=12 P=0.94 NS
		10001 - 20000	4	6.67	8	13.33	4	6.67	1	1.67	1	1.67	
		20001 - 30000	3	5.00	7	11.67	5	8.33	3	5.00	1	1.67	
		> 30000	1	1.67	6	10.00	3	5.00	1	1.67	0	0	
6.	Number of children	One child	6	10.00	16	26.67	8	13.33	3	5.00	1	1.67	3.12 DF=12 P=0.99 NS
		Two children	2	3.33	6	10.00	5	8.33	1	1.67	1	1.67	
		Three children	1	1.67	2	3.33	1	1.67	1	1.67	0	0	
		> Three children	1	1.67	1	1.67	1	1.67	0	0	0	0	
7.	Source of health information	Health workers	5	8.33	15	25.00	7	11.67	2	3.33	1	1.67	1.87 DF=9 P=0.99 NS
		Mass media	3	5.00	6	10.00	6	10.00	1	1.67	1	1.67	
		Friends/ Relatives	2	3.33	4	6.67	2	3.33	2	3.33	0	0	
		others	0	0	0	0	0	0	0	0	0	0	

The results showed that there was no significant association between the pre-test level of knowledge with their selected demographic variables.

CONCLUSION

The present study assessed the effectiveness of a self-instruction module on improving the level of knowledge regarding Vitamin A prophylaxis. The results showed a significant difference between the pre-test and post-test responses, indicating that the self-instruction module was effective in enhancing knowledge among the participants. Based on the findings, the investigator concluded that the self-instruction module successfully increased the level of knowledge regarding Vitamin A prophylaxis among mothers of under-five children.

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