

# Assessment On The Effect Of Health Teaching Regarding Vitamin A Deficiency In Children On Knowledge Of Mothers Residing In Selected Areas

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## Abstract

Child is precious and beautiful a source of joy and happiness a focus of love and care a subject of dreams of the future. The physical health of a child is essential because it is associated with the mental and social development of children. Mothers are the first care providers of their children. One of the ways to achieve reduction of under-five mortality is to educate the mothers on matters pertaining to child care. **Aim of the study** -A study was conducted to Assess the effect of health teaching regarding Vitamin A deficiency in children on knowledge of mothers residing in selected areas. **Methodology**- The main study was conducted from 21st March to 30th April in Santh tukaram nagar, Mahesh nagar, Mukesh nagar and yeshwanth nagae, Pimpri, pune. The samples included 60 mothers with under-five children. Data was analyzed by using descriptive and inferential statistics. **Result**- Paired t-test was used for the comparison of the knowledge gain in the pre test and post test among mothers regarding assessment on the effect of health teaching regarding Vitamin A deficiency in children on knowledge of mothers 8.3, whereas post test mean score was 16.7. Tvalue was 20.6. Corresponding p- value was 0.000, which is small (less than 0.050, hence the null hypothesis is rejected. Hence, from the scores obtained in pre test and post test the knowledge scores, it is evident that the knowledge score in pre test is significantly high as compared to the post test. This showed that health teaching was found to be highly beneficial in improving the knowledge of mothers regarding assessment on the effect of health teaching regarding Vitamin A deficiency in children. **Conclusion** -The result of the present study shows that there was significant difference in the pre-test and post test knowledge score of mothers. Hence, this indicates that the health teaching is an effective tool in increasing the knowledge of the mothers with under-five children.

**Key words:** Assessment ,Effect ,Health teaching ,Vitamin A deficiency , Children, mothers

## Introduction

Vitamin-A deficiency is a major nutritional problem among Pre-School children in developing and under developed countries. Public and community health sectors launched a number of Vitamin -A prophylaxis programmers to prevent Vitamin-A deficiency diseases and to reduce mortality rate Vitamin-A deficiency is a systemic disease with major effects on eye. This deficiency is usually associated with malnutrition, chronic diarrhea, malabsorption syndrome, cystic fibrosis of pancreas, hepatic insufficiency and prematurity. Vitamin A deficiency is one of the essential factor for children blindness and a major contributing factor to morbidity and mortality among pre-school children. It is mostly seen in poorer people and developing countries. About 2,50,000 to 5,00,000 malnourished children in the developing world go blind each year. Vitamin A deficiency can be combated with a variety of food and medicine

based approaches including increased food diversity, food fortification and medical Vitamin A supplements in every six months. India was the first country to launch a national program of vitamin A distribution for prevention of blindness in children. Including in this programme massive dose of Vitamin A is given once in six months to under - five year children. Nutrition education to mother aimed at promoting the consumption of Vitamin A rich foods for the children is also given. The national programme for prophylaxis against blindness due to Vitamin-A deficiency was launched in 1970. In 1992 when Child Survival and Safe Motherhood programme was launched, it forms the parts of this Reproductive Child Health programme. In India alone there may be over one million cases of Vitamin-A deficient blindness. The states badly affected area, the southern and eastern part of India. Vitamin-A deficiency correlates with increased morbidity and mortality in pre-school children. with measles. Complications from diarrhea and infections are often increased in pre-school children with Vitamin-A deficiency.<sup>7</sup> A population based study done by UNICEF in India, in 50 selected village's shows that in areas where Vitamin A deficiency is prevalent and preventive vitamin A supplementation can reduce child mortality by an average 23 percent. This is why Vitamin A supplements are often referred to as drops of life. India's national policy recommends that all children 9-59 months old be given preventive Vitamin A supplementation twice yearly to reduce the risk of child blindness, infection, under nutrition and death associated with Vitamin A deficiency, particularly among the most vulnerable children

## Need of Study

According to WHO the prevalence of Vitamin-A deficiency in pre-school children worldwide are about 250 million. An estimated 250 000 to 500 000 vitamin A- deficient children become blind every year, half of them dying within 12 months of losing their sight. Vitamin A deficiency is the leading cause of preventable blindness in children and increases the risk of disease and death from severe infections. Vitamin A deficiency is a public health problem in more than half of all under developed countries, hitting hardest under five children in low-income countries. For children, lack of vitamin A cause severe visual impairment and Night blindness, and significantly increases the risk of severe illness, and even death, from such common childhood infections as diarrheal disease and measles. WHO's goal is the worldwide elimination of vitamin A deficiency and its tragic consequences, including blindness, disease and premature death. Vitamin A deficiency is a Nutritional health problem affecting a large population all over the country. The mothers had inadequate knowledge on Vitamin A deficiency so the investigator through that if the mothers are educated well, it helps to improve the knowledge of Vitamin A deficiency in children. Therefore, the investigator decided to undertaken the Assessment on the effect of health teaching regarding vitamin A deficiency in children on knowledge of mothers residing in selected areas

## Aim of the Study

The main aim of the study was to assess effect of health teaching regarding vitamin A deficiency in children on knowledge of mothers residing in selected areas

## Research methodology

The research approach adopted for the present study was evaluative approach, as the study aims at assessing the effect of health teaching on knowledge regarding Vitamin A deficiency in children among Mothers residing in selected areas of PCMC. In the present study, the investigator has selected a one group pre and post test research design, as the study aimed to assess the effect of health teaching on knowledge regarding Vitamin A deficiency in children among mothers residing in selected areas. It provides the best framework for the study The present study was conducted in Community area of Santh Tukaram nagar, Mukesh nagar, Mahesh nagar and yeshwanth nagar Pimpri, Pune-18. The rationale for the selection of these setting was because of its geographical proximity, economy in terms of time, easy transport facility, administrative approval and people are very co-operative and supportive. In this study, the independent variable is Health teaching. In this study, the independent variable is knowledge regarding vitamin A deficiency. The population of the present study includes Mothers of under-five children residing in selected PCMC areas. The sample

selected for the present study comprises of Mothers having children between 6 month to 5 years of age residing in Phulenagar, Pimpri, Pune – 18 .The sample size selected for this study was 60. Only those who fulfilled the sampling criteria and who expresses their willingness to participate in the study were selected. Non-Probability purposive Sampling Technique was used for Selecting 60 Mothers of under five children. Inclusion criteria of the study Mothers having children below five years of age who can understand Marathi/ English. Exclusion criteria of the study Mother having children below five years who were not willing to participate in the study. The present study aimed at assessing the effect of health teaching on mother’s knowledge regarding vitamin A deficiency in children. A Structured Questionnaire was used for assessing the knowledge regarding vitamin A deficiency in children and health teaching on vitamin A deficiency in children was prepared. Section A: Consist of demographic data Section B: Structured questionnaire to assess Knowledge Section C: Health teaching For selection of the items and preparation of the tool, following steps were taken Review of literature was done in the area related to vitamin A deficiency .Opinion and suggestion were taken from experts, which helped in determining the important areas to be included .The researcher followed the ethical and legal issues related to nursing research. Permission was taken from corporator of Phulenagar nagar, Pimpri pune. Informed to authority and consent was taken from mothers of under-five children. The study was done only for study purpose and the researcher maintained the confidentiality. The experts were selected based on their clinical expertise, experience, and interest in the problem being studied 20 experts did the content validity of the tool. They were requested to give their opinion on the appropriateness and relevance of the items in the tool. As a whole, the suggestion and comments of expert were considered. Reliability was done at Santh Tukaram nagar, Mukesh nagar, Mahesh nagar and Yeshwanth nagar Pimpri, pune. on 10 mothers, using test-retest method and scores obtained were compared. The comparison procedure is performed objectively by computing reliability by Pearson’s correction coefficient method, and the score obtained was 0.86 (score above 0.70 indicate reliability of tool), which proved that the tool is reliable. he pilot study was conducted from 4 th March to 11 th March 2022 on 10 samples of mothers with under-five children residing in community area of phulenagar , Pimpri, pune. this was done to assess the feasibility of the study and to decide the plan for data analysis. The statistical analysis would be made on the basis of objective and assumption. The data analysis was planned to include Descriptive and Inferential statistics

## Result

### SECTION I

Table 1- Analysis of data related to the effect of health teaching among mothers post-test knowledge scores regarding Vitamin A deficiency in children.

n=60

Sr. No	Knowledge	Pretest		Posttest	
		Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
1	Poor (score 0-6)	15	25.0%	1	1.7%
2	Average (score7-13)	44	73.3%	3	5.0%

3	Good (score 14-20)	1	1.7%	56	93.3%
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**Table 1-** It shows the frequency and percentage distribution of samples according to pre-test and post test knowledge score of mothers, the data presented in the table fulfills the objectives, clearly indicating that, the in pre-test majority i. e. 73.3% of mothers with under-five children had good knowledge (score 7-13) and post test, majority i. e. 93.3% of mothers with under- five children had good knowledge (score 14-20) This indicates that there is remarkable improvement in knowledge of mothers of under-five children regarding Vitamin A deficiency in children.

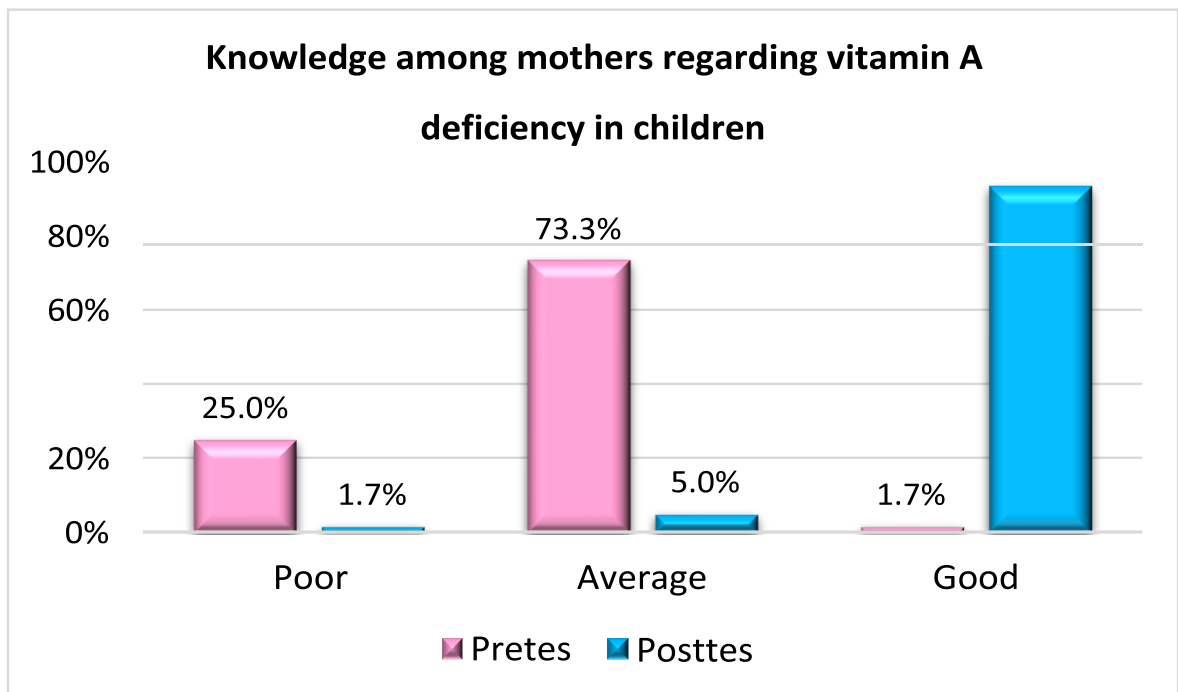


Figure 1 Knowledge among mothers regarding vitamin A

Fig. 1- Bar diagram showing pretest and posttest knowledge scores among mothers with under-five children regarding Vitamin A deficiency in children. The figure no. I indicates that, pre-test majority i. e. 73.3% of mothers with under-five children had good knowledge and posttest, majority i. e. 93.3% of mothers with under-five children had good knowledge This indicates that there is remarkable improvement in knowledge of mothers of under-five children regarding Vitamin A deficiency in children.

SECTION II

Table 2- Analysis of data related to Comparison of pre-test and post- test knowledge scores regarding vitamin A deficiency in children

n=60

Knowledge	Mean	Standard Deviation (SD)	Mean difference	't' test	P-value
Pretest	8.3	2.4	20.6	59	0.000
Posttest	16.7	2.5			

**Table 2–** It shows the effective of health teaching on Vitamin A deficiency in children in children by comparison of pre-test and post-test knowledge score, the researcher applied t-test for comparison of the knowledge gain among mothers of under-five children, regarding Vitamin A deficiency Average knowledge score in pre-test was 8.3 whereas mean post-test score was 16.7 Mean post-test knowledge scores is significantly higher than mean pre-test knowledge scores. t-value was found to be 20.6 Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. The knowledge gain in post-test is significantly high as compared as to pre-test knowledge scores. Hence, the researcher concluded that gain in knowledge is not by chance but by health teaching.

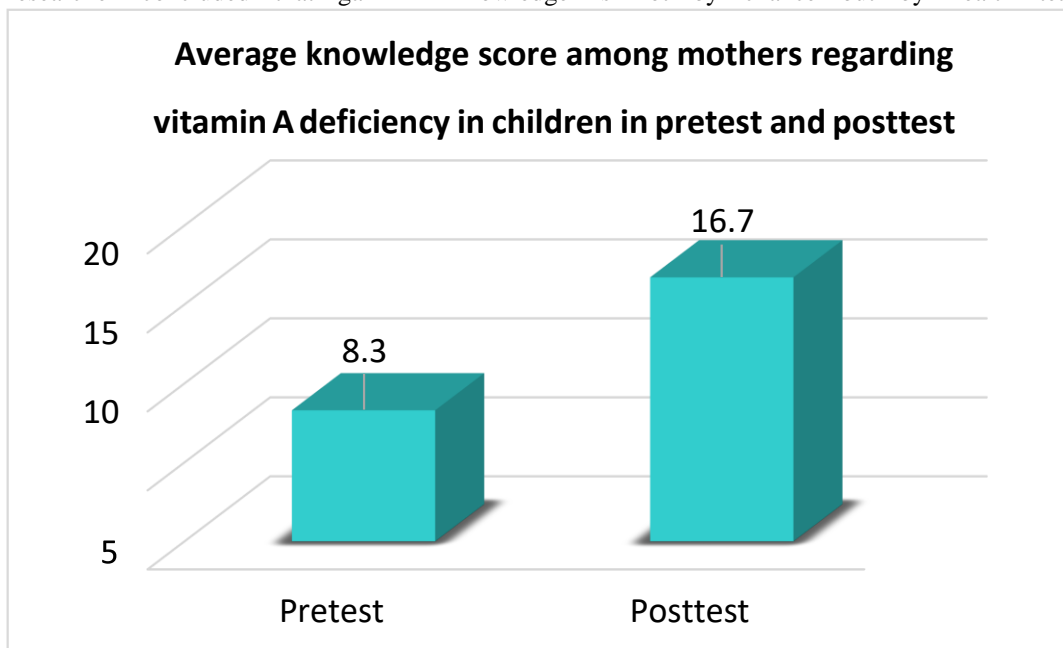


Figure 2 Average knowledge score among mothers regarding

Fig. 2– Bar diagram showing the effectiveness of health teaching on Vitamin A deficiency in children by

Comparison of pre-test and post test knowledge scores. The figure indicates that mean pretest and posttest knowledge score was 8.3 and 16.7 respectively. Mean difference between pretest and posttest score was 59, with t-value was found to be 20.6 Corresponding p-values was small (less than 0.05), the null hypothesis is rejected. The knowledge gain in posttest is significantly high as compared as to pretest knowledge scores. Hence, the researcher concluded that gain in knowledge is not by chance but by health teaching.

## Discussion

The finding of the study has been discuss with reference. A quasi experimental study was conducted to identify the prevalence and incidence of blindness among under five children, attending 22 schools for the blind in nine states of India. It shows 60% of children with blindness from corneal scarring attributable to Vitamin A deficiency. It also shows 245 of 1318 (18.6%) of children had blindness attributable to Vitamin A deficiency. It identified the proportion of blindness due to Vitamin A deficiency ranged from 7.5% to 26.7% in different states of India children in the capital city blind school had blindness due to Vitamin A deficiency, compared with 30.4% (51/168) in a blind school in a rural area of the same state. Overall, Vitamin A deficiency is the single most important cause of childhood blindness in India. There are marked variations by state and also between urban and rural locations 32 The present study was done on 60 sample mothers of under-five children. Pre-test score knowledge shows that 25.0% mothers had poor knowledge, 73.3% had average knowledge and 1.7% had good knowledge regarding Vitamin A deficiency in children. After providing health teaching to mothers, post test showed that 93.3% mothers had good knowledge and 5.0% mothers had average knowledge, 1.7% had poor knowledge. The significant difference in pre test and post test knowledge. However, the usual causes of Vitamin A deficiency night blindness, Bitot's sopts 56 and Xerophthalmia, delayed growth since effective early intervention can reduce complication, such as liver damage headache, diarrhea, Nausea ,skin irritation management of Vitamin A deficiency in children should be treated urgently nearly all the early stages of Xerophthalmia can be reversed by Administration of massive dose of 200,000 International units IU (OR 110 mg) of retinol plamitate orally on 2 successive days. all children with corneal ulcers are given Vitamin A deficiency treatment and preventive measures short term Administration of large doses of Vitamin A, medium term fortification of food and long term reduction or elimination of factors contributing to ocular disease.

## Conclusion

The study was conducted to assessment on the effect of health teaching regarding Vitamin A deficiency in children on knowledge of mother residing in selected areas.. Based on data collected and after statistical analysis was done, it was found that there is significant difference in pre test and post test knowledge score was found to be small (less than 0.05), hence null hypothesis is rejected indicating that the health teaching is highly effective in improving in the knowledge of mothers regarding Vitamin A deficiency in children. As the current emphasis of health care nowadays is on wellness of children, mothers with under five children to know about the period of Vitamin A deficiency. So as to promote wellness and prevention of various complications in under five children. Hence, mothers require 59 adequate knowledge about management of Vitamin A deficiency in children. One method that can help in improving their knowledge by conducting health teaching. As the study itself has shown, health teaching is an effective tool that can be adopted as one of the method in improving the knowledge of mothers towards providing adequate care to child during Vitamin A deficiency. Vitamin A deficiency continues to be a major nutritional problem in poor countries. Although ongoing education and the implementation of Vitamin A deficiency supplementation schedule in children.

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