

Awareness of Vitamin A Supplementation Among Mothers of Under-five Children in Selected Urban and Rural Areas



Nursing

KEYWORDS: Vitamin A supplementation, Under-five children, Vitamin A deficiency.

Celastin Susan

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Shashidhara Y.N.

Associate Professor & HOD, Department of Community Health Nursing,

NamiRia Kurian

Lecturer, Department of Fundamentals of Nursing, Manipal College of Nursing Manipal, Manipal University, Manipal

ABSTRACT

Introduction : Vitamin A supplementation is one of the effective strategy to prevent Vitamin A deficiency among under-five children. Public health sectors are actively participating in implementation of this National Health programme, where as majority of under-five mothers are not aware of this scheme.

Objectives:

- to assess the awareness regarding Vitamin A supplementation among mothers of under-five children in urban and rural areas,
- to compare the awareness of mothers regarding Vitamin A supplementation in urban and rural areas,
- to find the association between awareness regarding Vitamin A supplementation and selected demographic variables.

Materials and Methods: A descriptive comparative design was used to compare the awareness of Vitamin A supplementation among mothers of under-five children in selected urban and rural areas by administering structured knowledge questionnaire. SPSS 16.0 software was used for data analysis.

Results: It is found in the study that there is no significant difference in the mean ($p > 0.05$) awareness scores of Vitamin A supplementation in urban and rural areas and awareness was found more in rural area. There is significant association between awareness and selected variable like aware about Vitamin A supplementation ($\chi^2 = 17.43, p < 0.05$).

Conclusion: Educating public regarding Government facility and its utilization is important strategy to raise awareness as well as improve the effectiveness of the programme.

Introduction

Vitamin A (retinol) is an essential, fat soluble nutrient stored in body organs, mainly the liver. It is released, as needed, into the bloodstream, becoming available for use by cells throughout the body. The human body does not make Vitamin A, so intake of Vitamin A from external source is necessary. Vitamin A is an essential nutrient for maintaining eye health and vision, growth, immune function and survival. Everybody needs Vitamin A to protect and promote their health, but it is especially critical for growing infants and children. When there is an inadequate Vitamin A in food, can lead Vitamin A deficiency disorder. It is considered as a one of the significant public health problem with an estimation of 190 million preschooler affected globally and in India around 2.8 million children at risk of developing blindness.² Hence Vitamin A supplementation is recognised as one of the cost effective strategy for preventing blindness and child mortality and also helps to achieve the Millennium Development Goal-4.

A cross sectional study was conducted by Khaliq R et al to assess the knowledge, attitude and practices of mothers in children under five years of age regarding Vitamin A in outpatient department of military hospital Rawalpindi. Study participants were selected by using Systematic sampling technique. Data collected from 150 mothers of children <5 years by using structured questionnaire. The result showed that majority (93%) were housewives and most of them (70%) belonged to low socio economic status. Majority of them had poor knowledge i.e. 65%. Knowledge of Vitamin A and good practices, knowledge and attitude, Knowledge and practices and knowledge and educational status had an association.³

The present study was undertaken to compare the awareness of Vitamin A supplementation among urban and rural mothers of under-five children. The findings of the study will help to plan the intervention to raise the awareness.

Materials and Methods

In order to compare the awareness among urban and rural area comparative research design was used. The study was done

among 200 mothers of under-five children in selected urban and rural areas of Udipi district.

Simple random sampling technique was used to select the ten urban and ten rural areas. The areas selected for the study from urban area were Indira nagar, Shiribeedu, Sagri, Kinnimulky, Bailoor, Kalmady, Gundibail, Eswar Nagar, Perampalli and Settibettu and from rural area were Agrahaar, Ankudru, Pithrody 9th and 12th ward, J.N.nagar, Chokkadi, Mattu-bus stand, Acchada, Mattukoppala, Kajakarakote. From those selected areas anganwadi's and playhomes were selected to reach the study subjects.

Demographic proforma was used to collect the back ground information of the sample. The structured Knowledge questionnaire was constructed by the researcher. Data was collected by conducting structured interview to assess the awareness regarding Vitamin A supplementation among mothers of under-five children.

The researcher collected name list of the under-five children from each area and ten samples from each anganwadi's and play homes were selected by using lottery method. Informed consent was taken from the participants. The researcher conducted interview schedule for 200 samples (10 samples in each area) as and when they came to the anganwadi's and play homes. The researcher also visited some of the houses of selected samples due to their absence during the study. After each interview, samples were given information regarding importance of Vitamin A supplementation among under-five children.

Statistical package of social science software (SPSS 16.0) was used for statistical analysis of raw data. Frequency, mean, percentage, independent t-test and chi-square test were applied.

Results:

Table 1 describes the sample characteristics. Majority of the mothers of under five children in the urban (61%) and rural area (72%) were between the age group of 26-33 years. Most of the subjects from urban (63%) and rural area (57%) were belonged to joint family type. In religion, most of the mothers from urban

area were following Hindu religion 82% and 7% were following Christian. Most of them in the urban and rural area had high school education 30% and 38% respectively and 4% of people from urban area and 3% from rural area were illiterate. Majority of the subjects from urban (81%) and rural (87%) area were house wives. Almost 28% family from urban area had income between Rupees 9001-19000 per month and 32% from rural area had Rupees 3001-5000 per month. On both the area, most of the sample had children between the age group of 3>5 yrs it contributes a percentage of 59% and 71% respectively. In the urban area 60% of the samples were heard about Vitamin A supplementation where as in the rural area 56% were aware of Vitamin A supplementation. The source of information in both urban and rural area was by health workers.

Table 2 describes the area wise mean, standard deviation and mean percentage of awareness score on Vitamin A supplementation among mothers in urban rural area. The mean awareness score in the urban area was maximum (46%) in the area of Vitamin A deficiency and minimum (39.2%) in the area related to concept on Vitamin A. In the rural area mean awareness score was maximum (52.66%) in the area of Vitamin A deficiency and minimum (48.28%) in the area related to concept on Vitamin A.

Table 3 describes the mean difference between awareness scores of mothers of under five children in urban and rural areas and it was found that there is no significant mean difference ($p=0.46$, $p>0.05$) in the awareness scores of Vitamin A supplementation in urban and rural areas.

Figure 1 describes the percentage distribution of awareness score in urban and rural area. Awareness was found more in people residing in rural area than in urban area. Further also found in the study that there was significant association between awareness and selected variable like aware about Vitamin A supplementation ($\chi^2=17.43$, $p<0.05$) and it was tested at 0.005 level.

Table 1: Frequency and percentage distribution of sample characteristics (n=100+100)

Sample Characteristics	Urban area		Rural area	
	F	%	f	%
Age (in years)				
18-25	13	13	10	10
26-33	61	61	72	72
34-41	26	26	18	18
Type of family				
Nuclear	37	37	43	43
Joint	63	63	57	57
Religion				
Christian	7	7	0	0
Hindu	82	82	86	86
Muslim	11	11	14	14
Education				
Illiterate	4	4	3	3
Primary	24	24	28	28
High school	30	30	38	38
PUC/Diploma	22	22	20	20
Graduation	17	17	9	9
Post graduation	3	3	2	2
Occupation				
House wife	81	81	87	87
Agriculture	1	1	1	1
Nurse	3	3	0	0
Beautician	2	2	0	0
Doctor	1	1	0	0
Teacher	6	6	1	1
Computer	1	1	0	0

Tailor	4	4	2	2
Shopkeeper	0	0	2	2
Cashier	0	0	1	1
Beedi worker	0	0	1	1

Milk dairy	0	0	4	4
Coolie	1	1	1	1
Income				
Less than 1000	0	0	1	1
1001-3000	4	4	5	5
3001-5000	16	16	27	27
5001-7000	19	19	32	32
7001-9000	21	21	12	12
9001-19000	28	28	17	17
More than 19000	12	12	6	6
Age of Child				
9month-12month	1	1	0	0
1>3yrs	40	40	29	29
3>5yrs	59	59	71	71
Aware about Vitamin A supplementation				
Yes	60	60	56	56
No	40	40	44	44
Source of information				
Health workers	56	56	53	53
Mass media	3	3	2	2
Neighbours/friends	1	1	1	1

Table 2: Area wise mean, standard deviation and mean percentage of awareness score on Vitamin A supplementation among mothers in urban rural area. (n=100+100)

Areas	Maximum Possible score		Urban area		Rural area	
	Mean	SD	Mean %	SD	Mean %	SD

Concept on Vitamin A	0.7	2.75	1.5	39.2	3.38	1.42	48.28
Vitamin A deficiency	0.9	4.14	2.3	46	4.74	2.13	52.66
Vitamin A supplementation	14	6.34	2.6	45.3	7.30	2.34	52.14
Total	30	13.24	5.43	44.13	15.19	4.66	50.63

Table 3: Mean difference between awareness scores of mothers of under five children in urban and rural areas (n=100+100)

Areas	Mean	SD	t	df	p-value
Urban	13.23	5.42			
Rural	15.19	4.6	2.73	198	0.46

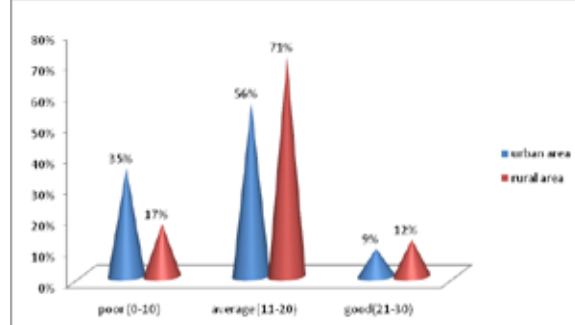


Fig 1: Bar diagram showing the percentage distribution of awareness score in urban and rural area

Discussion

The study findings showed that majority of mothers of under-five were between the age group of 26-33 yrs and most of them were housewives i.e. 81% from urban and 87% from rural area. Majority of mothers 60% from urban area and 56% from rural area were heard about Vitamin A supplementation. The major sources of information were health workers in both urban and rural area.

The present study finding was supported by the study conducted in Malawi to find out the coverage and knowledge on Vitamin A supplementation among 629 samples. The samples were selected from three different regions of Malawi by using clustered sampling technique. The study reported that 88.4% were heard about Vitamin A supplementation i.e. north- 89%, centre-83.3% and south region- 88.8% and the major source of information was Hospital/ clinic 88.8%. This study findings also revealed that there was a significant more knowledge in southern region ($p < 0.05$) than the northern and central region of Malawi.⁵

The study also revealed that majority of mothers of under-five children from urban area had average knowledge (56%) regarding Vitamin A supplementation, whereas in the rural area it was 71%, which shows that majority of people from urban and rural area had average knowledge regarding Vitamin A supplementation. In the urban area 35% and in the rural area 17% of sample fall under the poor knowledge category. Only 9% sample from urban area and 12% from rural area had good knowledge about Vitamin A supplementation and its importance. This finding is supported by a cross-sectional study done by Parmar D.V to assess the parents' awareness regarding Vitamin A supplementation at 100 immunization centres in Jamnagar District in the year 2009. Also, knowledge of health staffs regarding Vitamin A supplementation was assessed. The result showed that during the biannual round of Vitamin A supplementation coverage was 25 to 70% in different districts of Gujarat. Only 23% of the parents were aware about Vitamin A supplementation and 60% of the staffs had knowledge regarding two rounds of giving Vitamin A supplementation. Hence, the study concluded that low coverage of Vitamin A supplementation in Gujarat was less knowledge among health staffs and non-availability of IEC material to create awareness among people regarding Vitamin A supplementation.⁶

Hypotheses:

The stated null hypothesis for the second objective that there will be no significant mean difference between awareness scores of mothers of under-five children in urban and rural areas was accepted.

The stated null hypothesis for the third objective that there will be no significant association between awareness and selected demographic variables was rejected with regards to selected variable like aware about Vitamin A supplementation ($\chi^2=17.43, p<0.05$).

Conclusion

The awareness regarding Vitamin A supplementation was more in rural area than in urban area due to active participation and encouragement of peripheral health workers. Vitamin A supplementation is available at all Government sectors but most of the people are not aware about the facilities. Hence, there is a need to enhance information, education and communications related to Vitamin A supplementation, that will raise public awareness.

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