IOSR Journal of Nursing and Health Science (IOSR-JNHS)
e- ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 7, Issue 4 Ver. I (Jul.-Aug. 2018), PP 01-13
www.iosrjournals.org

A Study to Assess the Knowledge and Practices on Vitamin A Deficiency among School Children in Naziabad (District), Telangana, India.

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Abstract: *India has some of the high rates of VAD in the world. Each, year it is associated with the deaths of 330,000 children in India alone. Although vitamin A status has improved in the past few decades, a survey by the National Nutritional Monitoring Bureau indicates that 57 percent of Indian children-35.4 million children-were vitamin A deficient in the late 1990s. Data also suggests that while VAD affects both rural and urban households, it generally results from malnutrition.*

School children physical activity is a more than preschooler. They enjoy long periods of play, careless about their cloths, food and body clean less. Many food habits likes and dislikes are established in this age. They continue to need healthy foods and nutritious snacks and improve dietary habits. The school children had lack of knowledge on vit ''A' deficiency. The education in this aspect promote preventive and health maintenance behaviors among school children thus by taking above all factors into consideration the investigator feel the need to conduct a study on a on vit ''A' deficiency among school children in selected Government schools, in Nizamabad District.Telengana.

Key Words: *Knowledge, Vitamin A Deficiency, School children.*

Date of Submission: 25-06-2018 Date of acceptance: 09-07-2018

I. Introduction

"Education is the admission ticket to a changing world and the best chance for good health"
-WHO

Nutrition is recognized as an important determinant of health and development of societies. It is estimated that each year 55% of deaths among children under five can be either directly or indirectly attributed to hunger and malnutrition in developing countries including India. Apart from the protein energy malnutrition, inadequate intake of micronutrients such as vitamin 'A' and vital minerals (iron, calcium, iodine and zinc) are recognized to affect younger children.

Vitamin 'A' deficiency is the second most important factor for global blindness. Every year 2,50,000 to 500,000 children become blind partially or totally due to vitamin "A' deficiency and it lowers the resistance power of these children against infection (Sabana, 2002). Of the 10 million children found to be suffering from xerophthalmia, in every year, 5 million belongs to Asia. One fourth of them are eventually blinded.

India is home to 12 million blind people who constitute 25% of the total blind population worldwide. An even more starling fact is that 80% of these cases are preventable. Most of these can be attributed to lack of awareness of the nutritional resources.

Vitamin angles have committed it to eradicating childhood blindness due to Vitamin A deficiency on the planet by the year 2020. Operation 20/20 was launched in 2007 and will cover 18 countries. The program gives children two high dose vitamin A and anti-parasitic supplements [twice a year for four years], which provides children with enough of the nutrient during their most vulnerable years in order to prevent them from going blind and suffering from other life-threatening diseases caused by Vitamin A deficiency. About 75 percent of the vitamin A required for supplementation activity by developing countries is supplied by the Micronutrient initiative with support from the Canadian International Development Agency. An estimated 1.25 million deaths due to Vitamin A deficiency have been averted in 40 countries since 1998. In 2008 it was estimated that an annual investment of US$60 billion in vitamin A and zinc supplementation combined would yield benefits of more than US$1 billion per year, with every dollar spent generating benefits of more than US$17. These combined interventions were ranked by Copenhagen Consensus 2008 as the world's best development investment.

Children under 9-12yrs are at greater risk of developing vitamin 'A' deficiency. Vitamin 'A' requirements are greatest due to rapid growth but dietary intake is precarious and illness such as diarrhea, acute respiratory infection and measles depleting the vitamin 'A' resources are common.

Vitamin 'A' deficiency is a systemic disease that affects cells and organs throughout the body. The resistant changes in epithelial architecture are termed as "keratinizing Metaplacia". The characteristic ocular manifest ants of vitamin 'A' deficiency ranging from blindness to corneal melting are termed as 'xeropthalmia' or 'Dry eye'.

Vitamin 'A' deficiency in the under 9-12yrs can be prevented easily by increasing consumption of carotene rich foods, breast feeding, proper immunization and reducing results conditions like PEM, respiratory tract infections, diarrhea and measles at community level (Bhaskarini, 1996).

The Indian government launched the first vitamin 'A' supplementation programme in 1970 to prevent and control blindness resulting from vitamin 'A' deficiency (Arora and Ramadevi, 2002). According to the National Vitamin 'A' prophylaxis programme all children in the age of one to five years were to be administered 2 lakh IU of vitamin 'A' orally once in 6 months. Under the revised regimen a dose of 1 lakh of vitamin 'A' is to be given to all infants at 9 months along with measles vaccine and a second dose of 2 lakh IU is to be administered at 18 months of age along booster dose of DPT and OPV. Subsequently the children are to receive 3 doses of 2 lakh IU of vitamin 'A' every 6 months until 36 months of age (Park, 2005).

Nutrition education brings about awareness in individuals and communities of the need for proper selection of foods and creation of sound eating patterns. Imported food mixtures, injections and capsules do not provide permanent solutions and realistic approaches to the problem of nutritional Kidala (2000), conducted a study to evaluate the long term effects of a horticultural and nutritional education intervention. A quasi-experimental post test design was used. The study was carried out in 10 villages in Tanzania. Mothers from an experimental and group were interviewed regarding knowledge and practices related to vitamin 'A' nutrition. The knowledge and practices were more favourable to vitamin 'A' intake in the experimental group than the control group. Thus it was concluded that knowledge of food based vitamin 'A' programme can make sustained improvements in knowledge and dietary practices.

During clinical post in at government Hospital, Nizamabad, the investigator observed that 10-20 children per month were admitted with malnutrition in the pediatric department. Among them 50% of the cases were associated with vitamin 'A' deficiency disorders.

Hence the investigator felt the need to conduct a study on vitamin 'A' deficiency among school children in selected Govt School, Nizamabad (Dt).

Statement of the Problem:

"A Study to Assess the Knowledge and practices on Vitamin A Deficiency Among School Children In A Selected Government Schools, at Nizamabad (Dt). With a view to develop an information booklet."

Objectives:

1. To assess the knowledge and practices on vitamin A Deficiency among school children.
2. To find out the association between knowledge on vitamin A Deficiency among school children and selected demographic variables.
3. To find out the association between practices on vitamin A Deficiency among school children and selected demographic variables.
4. To develop an information booklet on vitamin A deficiency for school children.

Assumption:

It is assumed that school children may have inadequate knowledge and practices on vitamin A Deficiency.

Operational Definitions:

1. **Knowledge:** It refers to the awareness of the school children on vitamin A deficiency as measured by the responses to the structured questionnaire.

2. **Vitamin A deficiency:** It refers to lack of adequate dietary supplementation of Vitamin A.

3. **School Children:** It refers to primary school children up to 7^{th} class, belongs to 9-12 years age group (4^{th}, 5^{th} and 6^{th} class).

Inclusion Criteria:

- School children studying 4^{th}, 5^{th} and 6^{th} class.

- School children who knows Telugu.

Exclusion Criteria:
- School children who are not willing to participate in the study.
- School children who are studying in private schools.

II. Conceptual Framework

The conceptual framework for the study is based on health belief model. Health beliefs are person's ideas and attitude about the practices. They may be based on factual information and wrong information.

Rosenstoch's and Backer's health belief model (1974) addresses the relationship between the person's beliefs and behavior. It is a way of understanding and predicting how clients will behave in relation to their health care practices.

Use of this model is based on school children's knowledge on vitamin a Deficiency. The investigators felt that Backer's model is suitable as conceptual framework for this study. The model describes about three components.

Individual perception:
- School children's perceptions of vitamin A Deficiency
- Perceived seriousness to vitamin A Deficiency, poor nutritional status, lack of awareness on vitamin A Deficiency, poor family health maintenance, and improper nutritional supplementation.

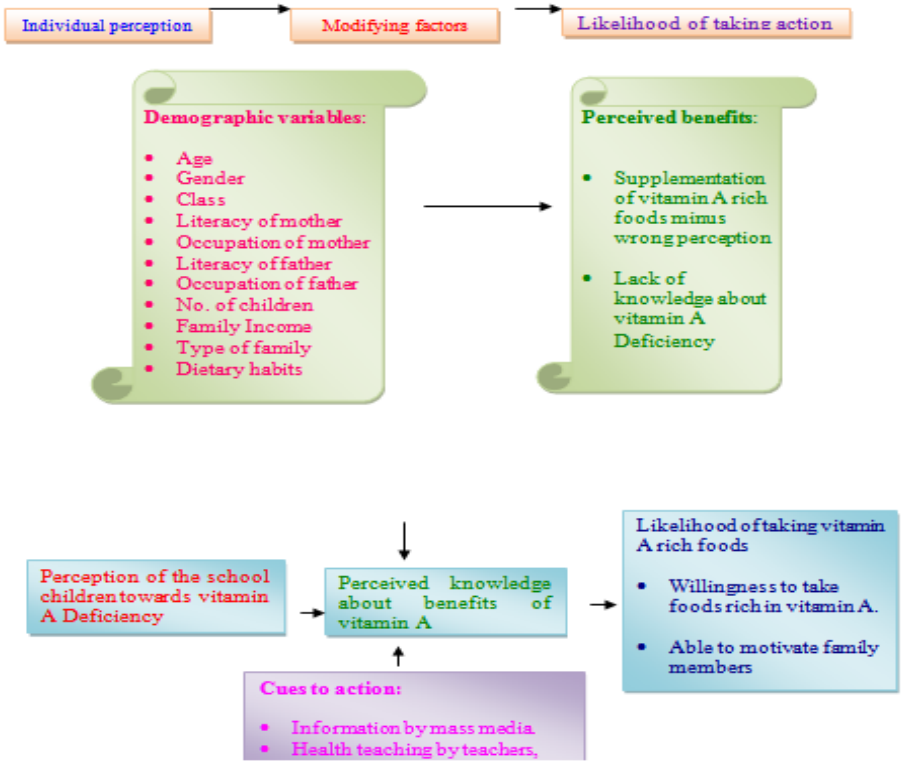
Modifying Factors:

School children's perception is influenced by demographic variables like age, sex, standard, family income, education of mother, education of father and source of information on vitamin A Deficiency.

Structural variables include knowledge of school children on vitamin A Deficiency. School children's perception is influenced by cues of action like information from mass media, health education by health personnel, self-observation about risks of vitamin A Deficiency and text books.

Likelihood of taking action:

The third component of the model is the likelihood of School children to take action to protect their health by taking foods rich in vitamin A and prevent the deficiencies.



III. Methodology

Research methodology is a way to solve research problem systematically. It involves the series of procedure in which researcher starts from initial identification of the problem to its final conclusion. This chapter deals with the description of methodology and different steps which were undertaken for gathering and organizing data for the investigation including: research approach, research design, setting of the study, target population, sample, sampling technique, development and description of tool, pilot study, data collection procedure and plan for data analysis.

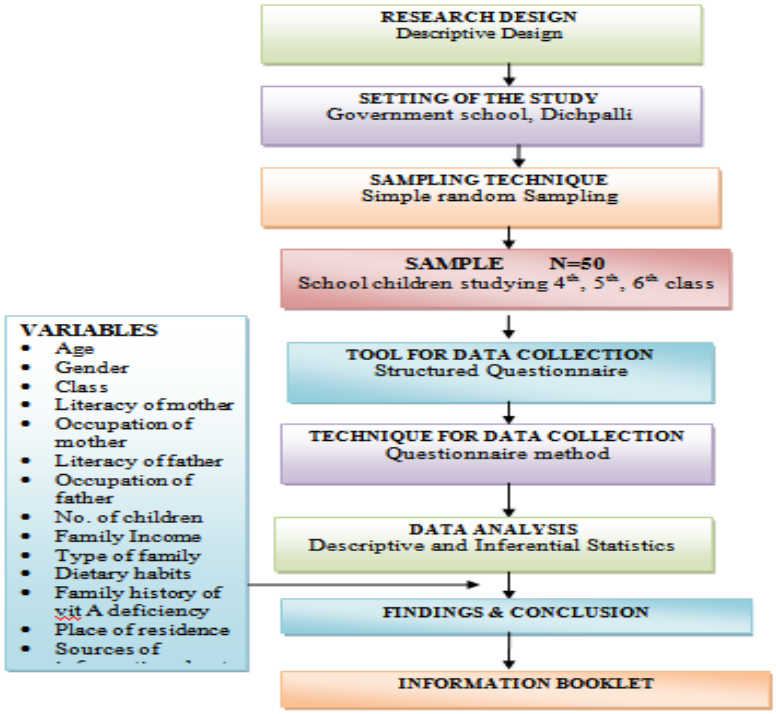
Research approach:

Research approach describes the type of research used in the study. The researcher approach of this study was survey in nature. A descriptive survey gives about people's knowledge with the help of self-reporting in their natural setting.

Research design:

Research design refers to the researchers overall plan for obtaining answer to the research question and for testing research hypothesis. The present study was designed in the form of non-experimental description type with the objective of describing knowledge practice on vitamin A deficiency among school children

FIG 2: SCHEMATIC REPRESENTATION OF RESEARCH DESIGN



Study Setting:

A study was conducted in the community setting namely, Nizamabad (Dt.).

Population for the study:

The target populations for the study were all school children studying 4^{th}, 5^{th}, 6^{th} classes.

Sample and sampling technique:

Sampling is a process of selecting a portion of the designated population to represent the entire population.

A total of 50 school children who met the inclusive criteria were selected as sample for the study by using purposive sampling technique.

Inclusion Criteria:

School children studying 4^{th}, 5^{th} and 6^{th} class School children who know Telugu.

Development of the tool:

The instruction selected for the study should be a vehicle that would obtain best data for drawing conclusions pertinent to the study. The investigators prepared a structured questionnaire based on the objectives of the study.

Steps in construction of the tool:

The tool used for the data collection was a structured questionnaire to assess the knowledge and practices of school children on vitamin A Deficiency.

The structured questionnaire

I. Section: Demographic data

II. Section: Questionnaire to assess the knowledge regarding vitamin A Deficiency.

III. Section: Questionnaire to assess the practices regarding vitamin A Deficiency.

Validation of the tool:

Content validity of the tool was done by the experts in the field of medicine, nursing.
and statistian. Initially the tool was developed consist of 7 demographic variables, as per the suggestions of the experts the data refined and reorganized and the variable are finalized. There were 25- items were agreed with the suggestions of reorganizing the order of questions. Based on the guidance items in the practices organized and the tool were finalized.

Final tool consist of

> Demographic variables - 14 items
> Knowledge - 10 items
> Practices - 15 items

Reliability:

For the study high percentage of reliability was found through split half method. The correlation co-efficient r= 0.946 was obtained through Spearman's Prophecy Formula.

Pilot study:

Polit and Hungler (1995) stated that the pilot study is a small version of trail run for the major study. The function is to obtain information for improving the project or assessing its feasibility.

After obtaining permission from concerning authority a pilot study was conducted in the March, 2011. Pilot study was conducted on 5 school children in Govt. School, Dharmaram, Dichpalli, Nizamabad District to find out the reliability and validity of the tool and to test the feasibility and practicability. No practical problems faced by investigator while conducting pilot study.

Data collection process:

In order to conduct the study permission was obtained from the head master Government Schools; the period of data collection was done in the month of April 15th. Before conducting the data collection procedure, the investigators explained the school children regarding the objectives of the study.

The investigator obtained knowledge from 50 students by administering structured questionnaire. Confidentiality of the information was maintained school children were allowed to clarify their doubts. All the school children co-operated well.

Plan for data analysis:

The data obtained will be summarized and tabulated for applying descriptive and inferential statistics.

Section I : Socio – demographic variables.

Section II : Assessment of knowledge and practices on vitamin A deficiency

Section III:

(a) An association between knowledge on vitamin A deficiency and selected variables.
(b) An association between Practices on vitamin A deficiency and selected variables.
(c) An association between knowledge and practices on vitamin A deficiency and selected variables.

IV. Data analysis and interpretation

This chapter deals with the statistical analysis, which is a method of rendering quantitative information in a meaningful and intelligible manner, statistical procedure of the data gathered to assess the Knowledge on vitamin A Deficiency. Tables and figures are used to explain the result.

The analyzed data has been organized and presented in the following sections.
Section I: Socio-demographic variables.

Section II : Assessment of knowledge and practices on vitamin 'A' deficiency

Section III:
(a) An association between knowledge on vitamin "A" deficiency and selected variables.
(b) An association between Practices on vitamin "A" deficiency and selected variables.
(c) An association between knowledge and practices on vitamin 'A' deficiency and selected variables.

SECTION I

This section deals with the data pertaining to the demographic characteristics of the school children with respect to Age, Sex, class, literacy of mother, occupation of mother , literacy of father, occupation of father, number of children, Education of mother, Family income, type of family, dietary habits, family history of vitamin ''A'' deficiency, place of residency, Source of Information about vitamin ''.

SECTION- I

Table I: Distribution of Demographic variables. N=50

S.No	Demographic variables		Number	Percent
1.	Age	9 yrs-10yrs	15	30%
		10yrs-11yrs	15	30%
		11yrs-12yrs	20	40%
2.	Gender	Male	22	44%
		Female	28	56%
3.	Class of study	4th class	14	28%
		5th class	16	32%
		6th class	20	40%
4.	Literacy of mother	Illiterate	14	28%
		Primary	18	36%
		Secondary	20	40%
		Collegiate	06	12%
		Technical	02	4%
5.	Occupation of mother	Home maker	10	20%
		Employee	15	30%
		Labor	20	40%
		Others	05	10%
6.	Literacy of father	Illiterate	15	30.%
		Primary	18	36%
		Secondary	10	20%
		Collegiate	04	08%
.		Technical	03	06%
7.	Occupation of father	Labor	22	44%
		Employee	14	28%
		Business	12	24%
		Others	02	04%
8..	No of children	One	15	30%
		Two	18	36%
		Three	09	18%
		Four and above	08	16%
9..	Family Income	<Rs3000/	12	24%
		3001-6000/-	20	40%
		6001/-9000	10	10%
		Above9000/-	08	16%
10.	Type of family	Single parent family	04	08%
		Joint family	14	28%
		Nuclear family	30	60%
		Extended family	02	04%
11.	Dietary habits	Vegetarian	08	16%
		Non vegetarian	05	10%
		Mixed	37	74%
12.	Family history of vit''A''deficiency	Yes	23	46%
		No	27	54%
13	Place of residence	Urban	26	52%
		Rural	24	48%
		Semi urban	09	18%
14.	Sources of information about vit''A''	Parents	15	30%
		Neighbors and friends	13	26%

		Teachers	05	10%
		Media	07	14%
		Health personnel	10	20%

Table I represents the demographic variables. Among 50 participants, majority of 15 (30%) belongs to9- 10yrs age group, followed by 15(30%) in the age group of 10-11yrs and belongs to the age group of 11-12 yrs 20(40%)

Majority of 28 (56%) are females and 22 (44%) are males.14 (28%) are studying 4^{th} class and 16 (32%) are studying 5thclass, 20(40%) 6^{th}class

Majority of Literacy of mothers 14(28%) illiterate, 18(36%) primary education, 20(40%) secondary education, 6(12%) collegiate education, 2(4%) technical education.

Majority of mothers occupation homemaker 20(40%) labor 20(40%) employers,20 (40%),5 (10%) belongs to others.

Majority of Literacy of fathers 15(30%) illiterate, 18(36%) primary education, 10(20%) Secondary education, 4(8%) collegiate education, 3(6%) technical education.

Majority of fathers occupation labor 22(44%) employers,14 (28%), business 12 (24%) 2 (4%) belongs to others. As per the number of children one 15(30%), two 18(36%), three 9 (18%), and above four belongs to 8(16%).

Majority of 12 (24%) are with family income of Rs<rs3000/-month.20 (40%) rs3001-6000/- and 10(20%) 6001-/9000-/ and above 8(16%)) has family income of Rs9000-/

Majority of single parent 4 (8%), joint family 14 (28%), and nuclear family 30 (60%), 2 (4%) are belongs to extended family.

As per the dietary habits 8 (16%) vegetarian, 5(10%) non vegetarian, and 37(74%) belongs to mixed food habits.

Majority of family history of vit A deficiency 23(46%) are Yes, and 27(54%) belongs to No.

As per the place of residency 26 (52%) are urban 15 (30%) rural and 9(18%) belongs to semi rural.

Majority of source of information on vit ''A'' deficiency received 15(30%) from parents, 13(26%) from neighbors' and friends, 5(10%) from teachers, 7 (14%) are media and 10(20%) belongs to health personnel.

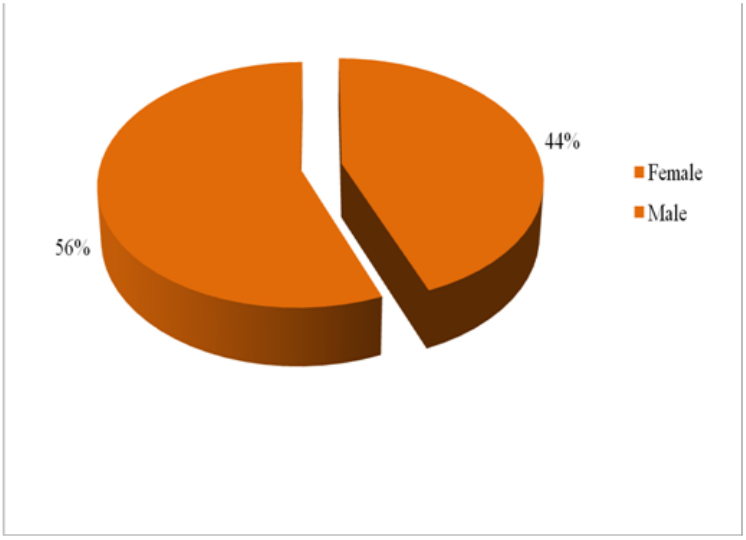
All the participants 50 (100%) received the information from books.

Table -2: Frequency & Distribution of school children according to Age

Age in years	**Frequency**	**Percentage**
9-10	15	30%
10-11	15	30%
11-12	20	40%
Total	**50**	**100%**

The above table shows that out of sample fifty. 15 (30 percent) are in between 10-11 years, 20 (40 percent) are in 11-12 years.

Table – 3: Frequency & Distribution of school among Gender on School children



Gender	Frequency	Percentage
Male	22	44%
Female	28	56%
Total	**50**	**100%**

The above table shows that out of sample fifty female 28 (56percent) , male 22 (44 percent).

Table – 4: Frequency & Distribution among class of study

Class of study	Frequency	Percentage
4^{th} class	14	28%
5^{th} class	16	32%
6^{th} class	20	40%
Total	**50**	**100%**

The above table shows that out of sample fifty 14 (28 percent) 4^{th} class, 16 (32 percent) 5^{th} class, 20 (40percent) 6^{th} class.

Table – 5: Frequency & Distribution of literacy status of mother

Literacy status of mother	Frequency	Percentage
Illiterate	14	28%
Primary	16	36%
secondary	10	20%
College state	6	12%
Technical	2	4%
Total	**50**	**100%**

The above shows out of fifty mother 14 (28 percent) illiterate , 16 (36 percent) primary education, 10 (20 percent) secondary education, 6(12 percent) college state education, 2 (4 percent) are have technical education.

Table – 6: Frequency & Distribution of occupation of mother

Occupation of mother	Frequency	Percentage
Home maker	10	20%
Employee	15	30%
Labour	20	40%
Others	5	10%
Total	**50**	**100%**

The above table shows that out of sample fifty mother occupation is 10(20 percent) are home maker, 15(30 percent) are employee, 20 (40 percent) are labour, 5(10 percent) are belongs to others.

Table – 7: Frequency & Distribution of literacy status of the father

Literacy status of father	Frequency	Percentage
Illiterate	15	30%
Primary	18	36%
secondary	10	20%
College state	4	8%
Technical	3	6%
Total	**50**	**100%**

The above shows out of fifty father 15 (30 percent) illiterate , 18 (36 percent) primary education, 10 (20 percent) secondary education, 4(8 percent) college state education, 3 (6 percent) are have technical education.

Table – 8: Frequency & Distribution of occupation of Father

Occupation of father	Frequency	Percentage
Labour	22	44%
Employee	14	28%
Business	12	06%
Others	02	04%
Total	**50**	**100%**

The above table shows sample of fifty occupations of fathers 22(44 percent) are belongs to labour, 14 (28 percent) are employees, 12 (06 percent) are business, 02 (04 percent) are others.

Table – 9: Frequency & Distribution of No. Of Children in the Family

No. Of children	Frequency	Percentage
One	15	30%
Two	18	36%
Three	09	18%
Four & Above	08	16%
Total	**50**	**100%**

The above table shows sample of fifty one child 15(30 percent), two children are 18 (36 percent), three children are 09 (18 percent), four and above are 08 (16 percent).

Table – 10: Frequency & Distribution of Family Monthly Income

Family Income/Month	Frequency	Percentage
< Rs 3000	12	24
3001-6000	20	40
6001-9000	10	20
Above 9000	08	16
Total	**50**	**100**

The above table shows among fifty samples < Rs 3000 earning 12 (24 percent), 3000-6000 are 20 (40 percent), 6001-9000 are 10 (20 percent), above 9000 are 08 (16 percent).

Table – 11: Frequency & Distribution of Types of Family

Type of Family	Frequency	Percentage
Single parent family	4	8
Joint family	14	28
Nuclear family	30	60
Extended family	2	4
Total	**50**	**100**

The above table shows that, among fifty sample 4 (8 percent) are belongs to single parent family, 14 (28 percent) are joint family, 30 (60 percent) are nuclear family, 2 (4 percent) are belongs to extended family.

Table – 12: Frequency & Distribution among Dietary Habits of Family

Dietary habits of family	Frequency	Percentage
Vegetarian	08	16
Non-Vegetarian	05	10
Mixed	37	74
Total	**50**	**100**

The above table shows among fifty samples 08 (16 percent) belongs to vegetarian, 05 (10 percent) are non-vegetarian, 37 (74 percent) are mixed.

Table – 13: Frequency & Distribution among Family History of Vitamin "A" Deficiency:

Family History of Vitamin "A" deficiency	Frequency	Percentage
Yes	23	46
No	27	54
Total	**50**	**100**

The above table shows that, among fifty sample 23 (46 percent) are belongs to Yes, 27 (54 percent) are No.

Table – 14: Frequency & Distribution among Place of Residence:

Place of Residence	Frequency	Percentage
Urban	26	52
Rural	24	48
Semi-Urban	09	18
Total	**59**	**100**

The above table shows that, among fifty sample 26 (52 percent) are belongs to urban, 24 (48 percent) are rural, 09 (18 percent) are semi-urban**.**

Section –I:

Table – 15: Frequency & Distribution among Sources of Information about Vit "A" Deficiency Received From-

Sources of Information about Vit "A" Deficiency Received From-	Frequency	Percentage
Parents	15	30
Neighbors & Friends	13	26
Teachers	5	10
Media	7	14
Health Personnel	10	20
Total	**50**	**100**

The above table shows that, among fifty sample sources of information on vitamin "A" deficiency received from parents are 15 (30 percent), neighbors and friends are 13 (26 percent), teachers are 5 (10 percent), media are 7 (14 percent), health personnel are 10 (20 percent).

SECTION-II

Assessment of Knowledge and practices on vitamin A deficiency

Table-16: Frequency & Distribution among Knowledge on Vitamin "A" Deficiency

Level of Knowledge	Frequency	Percentage
Inadequate	28	56
Adequate	9	18
Moderate	13	26

The above table shows that, among fifty sample level of knowledge 28 (56 percent) are inadequate, 9 (18 percent) are adequate, 13 (26 percent) are having moderate.

Table-17: Frequency & Distribution among Practice on Vitamin "A" Deficiency

Level of Knowledge	Frequency	Percentage
Inadequate	27	54
Adequate	7	14
Moderate	16	32

The above table shows that, among fifty sample level of knowledge 27 (54 percent) are inadequate, 7 (14 percent) are adequate, 16 (32 percent) are having moderate.

Table-18: Frequency & Distribution among Knowledge & Practice on Vitamin "A" Deficiency

Level of Knowledge	Frequency	Percentage
Inadequate	26	52
Adequate	8	16
Moderate	16	32

The above table shows that, among fifty sample level of knowledge 26 (52 percent) are inadequate, 8 (16 percent) are adequate, 16 (32 percent) are having moderate. The knowledge and practices are distributed with a mean of 7.88. SD 2.237 Variables.

SECTION –III

a) Table-19: Association between Knowledge on Vit A deficiency and selected variablesN=50

Sl.No	Demographic variables	Chi-square value	df	P-value	Inference
1.	Age (Yrs)	9.480[a]	4	.050	NS
2.	Gender	1.370[a]	2	.504	NS
3.	Class of study	3.583[a]	4	.465	NS
4.	Literacy of mother	5.176[a]	8	.739	NS

5.	Occupation of mother	5.165[a]	6	.523	NS
6.	Literacy of father	3.620[a]	8	.890	NS
7.	Occupation of father	8.437[a]	6	.208	NS
8.	No of children	3.827[a]	6	.700	NS
9.	Family income	18.511[a]	6	.005	NS
10.	Type of family	4.697[a]	6	.583	NS
11.	Dietary habits	1.719[a]	4	.787	NS
12.	History of vit A deficiency.	1.359[a]	2	.507	NS
13.	Place of residency	5.340[a]	4	.254	NS
14..	Source of information	6.308[a]	8	.613	NS

Table-16 shows Chi square established at 0.05 level of significance denotes that the association between knowledge on vitamin A deficiency and demographic variables like age (9.480[a]), gender (1.380[a]), class of study (3.583[a])literacy of mother (5.176[a]) and occupation of mother (5.165[a]) literacy of father (3.620[a]) and occupation of father (8.437[a]), number of children (3.827[a]). Family income per month (18.511 [a]), type of family (4.697[a]), dietary habits(1.719[a]) , history of vitamin A deficiency f(1.359[a]), place of residency (5.340[a]), source of information on vitamin A deficiency (6.308[a]) are statistically not significant.

SECTION – III

b)Table-20: Association between practices on vitamin A deficiency and selectedvariables N=50

Sl.No.	Demographic variables	Chi-square value	df	P-value	Inference
1.	Age (Yrs)	4.925[a]	4	.295	NS
2.	Gender	467[a]	2	.792	NS
3.	Class of study	2.534[a].	4	.639	NS
4.	Literacy of mother	8.945[a]	8	.347	NS
5.	Occupation of mother	5.976[a]	6	.426	NS
6.	Literacy of father	7.329[a]	8	.502	NS
7.	Occupation of father	7.205[a]	6	.302	NS
8.	No of children	6.650[a]	6	.354	NS
9.	Family income	4.100[a]	6	.663	NS
10.	Type of family	5.657[a]	6	.463	NS
11.	Dietary habits	661[a]	4	.956	NS
12.	History of vit A deficiency.	409[a]	2	.815	NS
13.	Place of residence	3.685[a]	4	.450	NS
14..	Source of information	4.823[a]	8	.776	NS

Table-18 represents the distribution of practice scores on vitamin A deficiency. The practicesis distributed with a mean of 7.88. SD 2.237.Variables. Chi square established at 0.05 level of significance denotes that the association between on practices and demographic variables like age (4.925[a]), gender (4.467[a]), class of study (2.534[a])literacy of mother (8.945[a]) and occupation of mother (5.976[a]) literacy of father (7.329[a]) and occupation of father (7.205[a]), number of children (6.650[a]). Family income per month (4.100 [a]), type of family (5.657[a]), dietary habits(.661[a]) , history of vitamin A deficiency f(.409[a]), place of residency (3.685[a]), source of information on vitamin A deficiency (4.823[a]) are statistically not significant.

SECTION – III

c) Table-21: Association between Knowledge and practices on vit A deficiency and selected Variables N=50

Sl.No	Demographic variables	Chi-square value	df	P-value	Inference
1.	Age (Yrs)	1.510[a]	4	.825	NS
2.	Gender	.674[a]	2	.714	NS
3.	Class of study	4.585[a].	4	.333	NS

4.	Literacy of mother	8.581[a]	8	.379	NS
5.	Occupation of mother	.877[a]	6	.996	NS
6.	Literacy of father	4.733[a]	8	.786	NS
7.	Occupation of father	6.196[a]	6	.402	NS
8.	No of children	5.012[a]	6	.542	NS
9.	Family income	6.186[a]	6	.403	NS
10.	Type of family	10.037[a]	6	.123	NS
11.	Dietary habits	2.776[a]	4	.596	NS
12.	Family history of Vit A deficiency.	1.575[a]	2	.455	NS
13.	Place of residency	2.894[a]	4	.576	NS
14..	Source of information	11.046[a]	8	.199	NS

The above Table-20 shows Chi square established at (0.05) level of significance denotes that the association between knowledge and practices on vitamin A deficiency and demographic variables like age (1.510[a]), gender (.674[a]), class of study (4.585[a]) literacy of mother (8.581[a]) and occupation of mother (.877[a]) literacy of father (4.773[a]) and occupation of father (6.196[a]), number of children (5.012[a]). Family income per month (6.186 [a]), type of family (10.037[a]), dietary habits(2.776[a]) , history of vitamin A deficiency (1.575[a]), place of residency (2.894[a]), source of information on vitamin A deficiency (11.046[a]) are statistically not significant.

V. Conclusion

The following conclusions made from the study were, the existing Knowledge on vitamin A Deficiency among school children was low. Majority of them had inadequate knowledge. The mean score was 16.60.

Implication of study:

The findings of the study are relevant to nursing field. The implications in various fields of nursing i.e. nursing practice, nursing education and nursing research.

Nursing service:

The community health nurse, who is the core member of health team and spending most of the time with the community, hence it is the responsibility of nurses to bring the school children forward towards that each child has to understand about the deficiency of vitamin A. Nurses play an important role in imparting knowledge regarding vitamin A Deficiency among school children.

The educational material need to be developed and health education regarding vitamin A rich foods, its deficiency, treatment and prevention is to be given in schools and in community.

Nursing education:

A person is considered to be healthy only when his/her physical, psychological, social and spiritual status at normal level. Nursing education emphasis on preparing prospective nurse to impart health education by using various methods of educational technology on vitamin A Deficiency.

The students should be given more education on counseling the school children, who are at the great risk of developing the health problems and diseases due to lack of adequate dietary supplementation of vitamin A.

Nursing administration:

Nursing administrators should have compulsory involvement in formulating policies for health education and conduct programmes in hospital and community setting. The administrator should plan and organize the education programme for school children on various aspects of vitamin A. The nurse administrator should see and evaluate about school children's awareness on vitamin A and utilize their capabilities for their holistic health and wellbeing.

Nursing research:

Present study has given the base to conduct the future quantitative and qualitative research on the knowledge of school children regarding vitamin A Deficiency. It is needed as nursing personnel is one of keen observer in health science, so it will be useful in future for planning and implementation of child's care. Various research activities have to be undertaken to know the health risks and its prevention due to deficiency of vitamin A.

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Thunga Usha Rani M.Sc.(Psy) "A Study to Assess the Knowledge and Practices on Vitamin A Deficiency among School Children in Naziabad (District), Telangana, India."." IOSR Journal of Nursing and Health Science (IOSR-JNHS) , vol. 7, no.4 , 2018, pp. 01-13.