

**KNOWLEDGE OF MOTHERS TOWARDS VITAMIN A IN AL- KADHIMIYA REGION
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ABSTRACT

Background: Vitamin A deficiency is one of the most significant nutritional diseases among children. **Aims:** To determine the knowledge and attitudes of mothers about vitamin A supplement in infant and, to find out the relationship between demographic data and knowledge and attitudes of mothers. **Methods:** A cross-sectional study was conducted at primary health center in Al- Kadhimiya region in Baghdad city where the participants living there. The sample size was 100 case by a non-probability convenience sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. The study analysis was done using SPSS (statistical package for social sciences) to analysis this data. **Results:** The higher percentage of cases 46% in the age group 20-29 years, followed by 40% in the age 30-39 years, 51% were housewives, 27% had illiterate education and 24% had 2 children. **Conclusions:** We conclude the most sample falls in the age groups 20-29 years. There is a significant relationship has been found between the education mothers and provide the child with vitamin A. also, there is a highly significant relationship have been found between the age groups, occupations, education level of mothers and most common health problem in children when exposed to a lack of vitamin A in the body, $p=0.000$. we need to control the infant vitamin A deficiency by include the health promotion and nutrition education for families from all socioeconomic levels. Improvements in lifestyle quality, based on adequate food consumption by all infants, must be achieved by communities, especially in urban areas and for older mothers.

KEYWORD: Vitamin A, Children, Age, Knowledge.**INTRODUCTION**

Vitamin A, which is also known as retinol, is an essential, fat soluble nutrient. It is stored in our body's organs mainly in the liver. When our bodies need it, it is released into the bloodstream.^[1] This makes it available for cells to use it throughout the body.^[1] Vitamin A is essential for the health and well-being of people, particularly children. Vitamin A deficiency is one of the most significant nutritional diseases among children.^[2] Each year, both established and marginal forms of vitamin A deficiency may contribute to 1.3 – 2.2 million preventable deaths in children younger than 5 years from infections.^[3]

Children who lack vitamin A are more likely to get infections and to die from them than children with adequate vitamin A stores in their bodies.^[4] Apart from infections, vitamin A deficiency is also one of the main causes of blindness amongst young children.^[5] An estimated 500 000 children go blind every year due to vitamin A deficiency and within months of the onset of blindness 20 - 70% of these children lose their lives. For these reasons, vitamin A has received attention worldwide.^[6]

Vitamin A deficiency occurs most predominantly in poorer and developing countries in Africa, Asia as well as in Central and South America.^[7] In South Africa in 1994, a national survey done by the South African Vitamin A Consultancy Group (SAVACG) for the Department of Health showed that one out of three children under the age of six years in the country had poor vitamin A status.^[8] The provinces most seriously affected by vitamin A deficiency were the Northern Province, KwaZulu/Natal, Mpumalanga, North West Province and Eastern Cape.^[9] Children living in rural areas and in low socio-economic environments were found to be more severely affected than those living in urban areas and in a better socio-economic environment.^[10] The findings of the study identified vitamin A deficiency to be a significant public health issue for young children in the country and that key intervention strategies are needed to alleviate this nutritional disorder.^[11] The study aimed to determine the knowledge and attitudes of mothers about vitamin A supplement in infant and, to find out the relationship between demographic data and knowledge and attitudes of mothers.

MATERIALS AND METHODS

A cross-sectional study was conducted at primary health center in Al- Kadhimiya region in Baghdad city where the participants living there. The study started from 1st February 2019 to the end of May 2019. The sample size was 100 case by a non-probability convenience sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. A special questionnaire was designed by the investigator and it include the demographic information. The study analysis was done using SPSS (statistical package for social sciences) to analysis this data.

Statistical Analysis

The following statistical data analysis approaches were used to analyze and assess the results of the study under application of the statistical package (SPSS) version 22.

1. Descriptive data analysis

- a- Tables (Frequencies, Percent's, and Cumulative Percent's), arithmetic mean, and standard deviation.
- b- Contingency Coefficients for the association tables.

2. Inferential data analysis

These were used to accept or reject the statistical hypotheses, which included the following:

- a- Contingency Coefficients (C.C.) test for the cause's correlation ship of the association tables.

$$C.C. = \sqrt{\frac{\chi^2}{\chi^2 + T..}}$$

Where χ^2 is the Chi Square statistic and $T..$ is the overall total of the contingency table.

- b- Chi-Square test for testing the independency distribution of the observed frequencies and there is none restricted of an expected outcome.

$$\chi^2 = \frac{\sum_{all i} (O_i - E_i)^2}{E_i}$$

Where O_i is the observed frequency of group i and E_i is the expected frequency.

RESULTS

This part presents the findings of data analysis systematically in tables and these correspond with the objectives of this, and as follows:

Part 1: Distribution of Socio-Demographical Characteristics variables

Table (1) shows the distribution of studied "Socio-Demographical Characteristics" variables (SDCv.), with comparisons significant.

Table (1): Distribution of the studied sample according to "Socio-Demographical Characteristics" variables (SDCv.) with comparison significant.

SDCv.	Groups	Frequency	Percent
Age Groups	> 20 yrs.	1	1
	20 - 29	46	46
	30 - 39	40	40
	40 - 49	13	13
Occupation	Housewife	51	51
	Employee	49	49
Education	Illiterate	27	27
	Read & write	15	15
	Secondary	13	13
	University	45	45
No. of Children	1	16	16
	2	24	24
	3	23	23
	4	22	22
	5	8	8
	6	7	7

Part 2: Relationships of BAI (Scoring Scales) and Socio-Demographical Characteristics variables (SDCv.)

To find out relationship among Knowledge about exercising their mothers and vitamin A for children in health centers at Al- Kadhimiya region considering socio-demographical characteristics variables (SDCv.) for studied sample, correlation ship through applying contingency coefficients are constructed in table (2) with comparisons significant.

Table (2): Relationship among Knowledge about exercising their mothers and vitamin A for children in health centers and Socio-Demographical Characteristics variables (SDCv.)

Overall Ass.	Socio-Demographical Characteristics variables (SDCv.)	Contingency Coefficients	Approx. Sig.	C.S.(*)
How long do you think will provide the child with vitamin A?	Age Groups	0.228	0.140	NS
	Occupation	0.060	0.548	NS
	Educational level	0.274	0.044	S
	No. of Children	0.178	0.660	NS
With any vaccine given vitamin A?	Age Groups	0.248	0.088	NS
	Occupation	0.182	0.063	NS
	Educational level	0.344	0.004	HS
	No. of Children	0.214	0.440	NS
How often is the supply of this vitamin for children, according to the Iraqi agenda for Immunization?	Age Groups	0.132	0.622	NS
	Occupation	0.051	0.607	NS
	Educational level	0.172	0.384	NS
	No. of Children	0.301	0.077	NS
What are the most common health problem in children when exposed to a lack of vitamin A in the body?	Age Groups	0.411	0.000	HS
	Occupation	0.403	0.000	HS
	Educational level	0.491	0.000	HS
	No. of Children	0.250	0.249	NS
How to process vitamin A deficiency?	Age Groups	0.190	0.292	NS
	Occupation	0.102	0.303	NS
	Educational level	0.074	0.909	NS
	No. of Children	0.259	0.205	NS
In any organ of the body stores vitamin A?	Age Groups	0.235	0.119	NS
	Occupation	0.025	0.803	NS
	Educational level	0.147	0.533	NS
	No. of Children	0.144	0.831	NS
Do you think that vitamin A is essential for growth and development	Age Groups	0.276	0.042	S
	Occupation	0.055	0.582	NS
	Educational level	0.164	0.430	NS
	No. of Children	0.269	0.168	NS
In any vegetarian foodstuff vitamin A high concentrations exist?	Age Groups	0.296	0.022	S
	Occupation	0.350	0.000	HS
	Educational level	0.471	0.000	HS
	No. of Children	0.231	0.341	NS
In any animal foodstuff vitamin A high concentrations exist?	Age Groups	0.179	0.348	NS
	Occupation	0.155	0.118	NS
	Educational level	0.179	0.348	NS
	No. of Children	0.404	0.002	HS

(*) HS: Highly Sig. at $P < 0.01$; S: Sig. at $P < 0.05$; NS: Non-Sig. at $P > 0.05$; Statistical tests are based on testing Contingency Coefficient

DISCUSSION

Vitamin A is essential for the health and well-being of people, particularly children.^[1] A higher subclinical vitamin A deficiency was associated with: not receiving vitamin A supplement over the year, no or incomplete vaccination, belonging to a mother with low levels of awareness of vitamin A.^[12] In our study, 46% of samples fall in the age groups 20-29 years compared with other results we found in Iran by Olang 39.7%^[13], this may be similar tradition and customer between the countries. So, in this study, 51% were housewives compared with other results we found in Nigeria by Aremu 30.2%^[14], it may be difference in lifestyle between the two countries and the spread of poverty, which led to mothers work to provide living

requirements. In our results, 27% of samples were illiterate education compared with other results we found in US by Ganji 3.6%^[15], the reason for the difference is due to the wars experienced by the country, which led to the girls left the school in addition to their marriage in early and take the family responsibility.

Among the risk factors identified, low levels of vaccination, high parity, and low levels of maternal awareness of vitamin A contributed to higher risks of vitamin A deficiency among infants.^[12] In this study it found 24% of the cases they have two children compared with other results we found in Nepal by Coren 11.1%^[16], this may be habits differ between the two countries. In our study, we found a significant relationship between

the mothers education and provide the child with vitamin A, $p=0.044$, disagree with the results found in Brazil by Konstantyner.^[17] This may be to different customs and traditions between the two countries.

Also, we found highly significant relationship between the mother's education and the any vaccine given vitamin A, $p=0.004$ and disagree with the results found in Bangladesh by Semba^[18], This may be difference traditions between the two countries. So, in this study, we found highly significant relationship between the age groups, occupations, education level of mothers and most common health problem in children when exposed to a lack of vitamin A in the body, $p=0.000$ and disagree with the results found in China by Jiang^[19], this difference habits between the two countries. In our study, we have found significant relationship between the age groups and the vitamin A is essential for growth and development, $p=0.042$ and agree with the results found in Tanzania by Masanja^[20], this similarity opinions and habits between the two countries. Then, we have found significant relationship between the occupation, education mothers and the vegetarian foodstuff vitamin A high concentrations exist, $p=0.000$ and agree with the results found in Nepal by Nguyen^[21], this due to similarity opinions & habits between the two countries. As well, we have found highly significant relationship between the number of children and any animal foodstuff vitamin A high concentrations exist, $p=0.002$ and disagree with the results found in Ethiopia by Demissie^[12], this indicate that difference of customs and traditions between the two countries.

CONCLUSIONS

We conclude that most sample falls in the age groups 20-29 years; half the number of samples were housewives; illiterate education. There is a significant relationship has been found between the education mothers and provide the child with vitamin A. also, there is a highly significant relationship have been found between the age groups, occupations, education level of mothers and most common health problem in children when exposed to a lack of vitamin A in the body, $p=0.000$. we need to control the infant vitamin A deficiency by include the health promotion and nutrition education for families from all socioeconomic levels. Improvements in lifestyle quality, based on adequate food consumption by all infants, must be achieved by communities, especially in urban areas and for older mothers.

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