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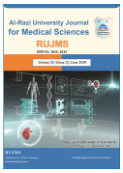

Mothers' Knowledge Toward Malnutrition of Children Under 5 Years Old in Al-Sabeen Hospital, Sana'a City-Yemen

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Abstract

Background*: Malnutrition is the major cause of many diseases and is a burden in developing countries. A child's intake can have a great impact on her/his growth and development. The mothers' knowledge of nutrition can play a vital role in a child's intake to improve nutritional status.* ***Aim****: to assess the mothers' knowledge regarding the malnutrition among the children under 5 years in Al-Sabeen hospital, Sana'a city.* ***Methods****: The study was conducted in Al-Sabeen hospital, in Sana'a city. The descriptive, cross-sectional study was used from February to May 2018 on 106 mothers. Convenience sample was applied to selected study participants. A questionnaire was used to collect data about the mother's knowledge toward malnutrition of children under 5 years old. SPSS was used to analyze of study variables. Data was analyzed by using descriptive and inferential statistical in terms of frequency, and percentage, Chi-square values* ***Results****: More than half of participants were left in the city (39%) and (37.7%) had primary education. More than half of the samples were monthly income (15000 – 36000) and the high percentages (93.4%) of mothers were a housewife. The results of the study showed that highly statistically significant association between the Mothers occupation and their knowledge level (P- value= 0.000). The results of the study showed that no statistically significant association between family income and their knowledge level, (P-value= 0.27).* ***Conclusion****: The low level of knowledge was found among mothers toward malnutrition of children. The study recommended that the Ministry of Public Health and Population to set up awareness programs to promote knowledge of mothers regarding to breastfeeding and balance food.*

Keywords*:* Malnutrition, Children under 5 years, Mothers, knowledge, Sana'a City.

Introduction

Children are the most important segments for a nation for the optimal physical, mental, emotional development of its future worthy citizens[1]. More than 3.5 million children under five die unnecessarily each year in Asia due to the underlying cause of undernutrition, and millions more are permanently disabled by the physical and mental effects of a poor dietary intake in the earliest months of life. By the time children reach their second birthday, if undernourished, they could suffer irreversible physical and cognitive damage, impacting their

future health, economic well-being, and welfare[2]. The consequences of insufficient nourishment continue into adulthood and are passed on to the next generation as undernourished girls and women have children of their own[3]. A balanced diet is essential for normal activities of life. Since there is enough food available, it can be improved through proper education and awareness. Good nutrition and proper feeding programs prevent illness and disabilities. Malnutrition continues to be an underlying cause of morbidity and mortality in children under five years of age[4].

In Yemen is linked to factors such as economic, social and normal aspects. If it is estimated that some 2.2 million Yemeni children are currently suffering from acute malnutrition and need urgent care, including some 462,000 severely malnourished children, a significant increase of up to 200 percent compared to 2014 and 1.7 million Yemeni children suffer from moderate acute malnutrition, according to a UNICEF statement, 2016[5].

Children are the future of society and mothers are the guardian of that future, Knowledge of mothers has an important role in the maintenance of nutritional status of the children. Hence to ensure sound foundation and secure future of any society health and nutrition of their children needs protection [6,7].

Aim of the study

To assess the mothers' knowledge toward malnutrition of children under 5 years in Al-Sabeen hospital, Sana'a city.

Subject and methods

A descriptive a cross-sectional study was conducted from February to May 2018 to assess the mother's knowledge regarding malnutrition of children under 5 years old in Al-Sabeen hospital, Sana'a city, Yemen. The study was conducted at Al-Sabeen Hospital in Sana'a city, Yemen.

Al-Sabeen hospital is the largest therapeutic feeding center in Sana'a.

The sample size was 106 mothers. A convenient sampling technique was used to select the sample for the present study. Data were collected through a structured questionnaire and implemented as a face-to-face interview. Each mother was privately interviewed at the room by the researchers or the data collectors after explaining the purpose of the study and assuring the confidentiality of the collected data.

The questionnaire consisted of two parts as follows: Part I: Socio-demographic characteristics (education, occupation, monthly income, and residency).

Part II: Mothers' knowledge about nutrition elements provided, exposure the child to sun and normal body weight of child: Nutrition elements, Exposure the child to the sun, knowledge of mothers about Rickets disease, Time for a child exposed to the sun, kwashiorkor, Iron deficiency anemia, Marasmus wasting and normal weight. The mothers were briefed about the nature of the study, consent was given and a pre-tested structured questionnaire was administered to them. The data was analysed by used SPSS version 18.

Data was analyzed by using descriptive and inferential statistical in terms of frequency and percentage. The association between demographic data and level of knowledge was done using x^2 test (for categorical variables). *P*-value <0.05 depicted significant statistical difference.

Results

Table 1 shows the Socio-demographic characteristics of the mothers. The findings of the study showed that (37.7%) of the mothers had basic education, while (5.7%) had a university education. Monthly income ranged from 15000 to 36000 YR represented 51%. A high percentage (93.4%) of mothers were a housewife and (52.8%) of them were came from an urban area.

As regards to the distribution of mothers according to the level of knowledge about essential nutrients showed that there were approximately two-thirds (64%) of subjects have high knowledge, while less than one fifth had low knowledge. Figure 1.

Figure 2 reveals the knowledge of mothers about kwashiorkor. almost (72%) of mothers had low knowledge, (25%) had average knowledge while only (3%) of mothers had high knowledge.

According to the mother's knowledge about Iron deficiency anemia, approximately half (49%) of a sample of the study have average knowledge, while near one third (32%) of a sample of the study have high knowledge, and less than one fifth (19%) of a sample of the study had low knowledge. Figure 3.

Table 1: Socio-demographic characteristics of the mothers (N=106).

Socio-demographic Characteristics	F	%
Level of Education		
• Illiterate	39	36.8
• Basic education	40	37.7
• Secondary education	21	19.8
• University	6	5.7
Monthly Income *		
• 15000 – 36000 YR.	54	51
• 36000 – 57000 YR.	34	32
• 57000 – 79000 YR.	10	10
• 79000 – 100000 YR.	1	1
Employee		
• Housewife	99	93.4
• Employed	7	6.6
Residency		
• Rural	50	47.2
• Urban	56	52.8

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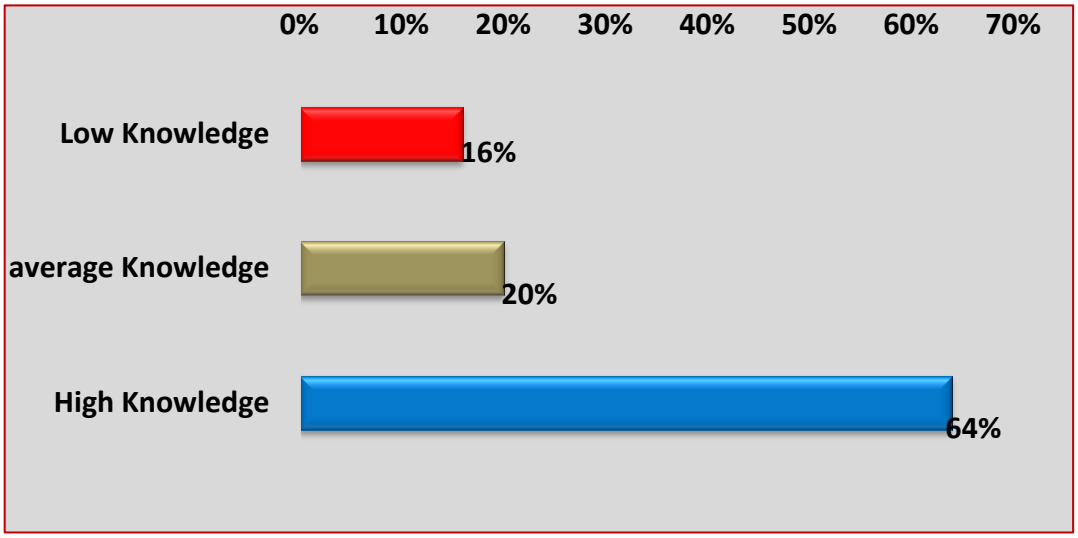

Figure 1: Level of knowledge about essential nutrients among mothers

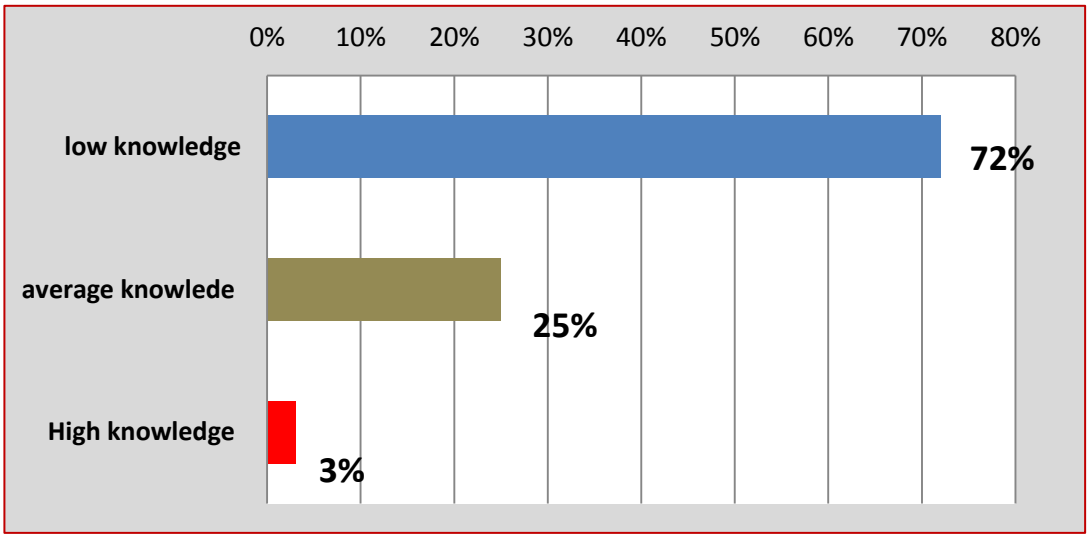

Figure 2: Level of knowledge about kwashiorkor among mother

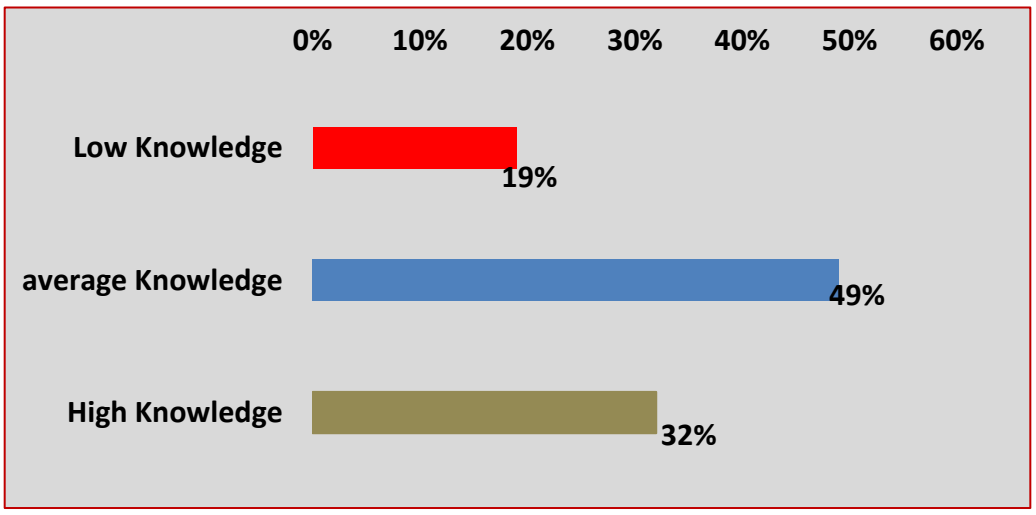

Figure 3: Level of knowledge about Iron deficiency anemia among mothers

Table 2 describes the association between the level of knowledge of mothers and their Socio-demographic characteristics. A highly statistically significant association between the mother's education and their knowledge level (P-value= 0.000). There was no statistically significant association between the monthly income and occupation and the mother's knowledge (P-value = 0.27; P-value = 0.13 respectively).

Table 2: Association between the Mothers knowledge and their Socio-demographic characteristics (N = 106)

Socio-demographic characteristics		Level of Knowledge						P-value
		Low		Average		High		
		F	%	F	%	F	%	
Education	Illiterate	21	60	13	37.1	1	2.9	0.000
	Basic education	14	36.8	22	57.9	2	5.3	
	Secondary	4	20	15	75	1	5.0	
	University	1	16.7	5	83.3	0	0.0	
Monthly income(YR)	15000 - 36000	22	40.7	31	57.4	1	1.9	0.27
	36000- 57000	15	42.9	18	51.4	2	5.7	
	57000- 79000	2	22.2	6	66.7	1	11.1	
	79000-100000	1	100	0	0.0	0	0	
Occupation	Housewife	38	41.3	50	54.3	4	4.3	0.13
	Employed	2	28.6	5	71.4	0	0.0	

Discussion

Childhood malnutrition is a massive crisis caused by a combination of factors including inadequate food intake, childhood diseases, harmful child care practices, low socioeconomic status, all these contribute to poor health and millions of deaths annually. Malnutrition is like an iceberg, which affects the community both directly and indirectly. The direct effects are the occurrence of frank and subclinical nutritional deficiency diseases. The indirect effects are high morbidity and mortality among young children. Malnutrition is an extremely complex phenomenon with multiple causes, multiple manifestations and is intergenerational[8].

The findings of the study revealed that the (37.7%) of the mothers had primary school education and (5.7%) had a university education, and almost (93.4%) of mothers were a housewife and (52.8%) came from an urban area.

The distribution of mothers according to their family Income showed that the half (51%) of the mothers their monthly income ranged from 15000 to 36000 YR (43%). A study was conducted by Kavitha, 2015[9], the analysis revealed that the highest percentage (43%) of the mothers their age were 21 to 25 years, the lower percentage (7%) of the mothers were 30 years. The educational status of mothers showed that highest percentage (53%) of the mothers had primary school education and low percentage (10%) had graduate, and about occupation with the highest percentage (33%) were labors and the lower percentage (20%) were private employees.

Our study denoted that there was statistical significant association between the mothers education and their knowledge level (P-value= 0.000)

but there is no statistically significant association between the monthly income and occupation and the mothers knowledge (P-value = 0.27; P-value = 0.13 respectively) which is in concordance with other study conducted by Khokar, 1998[10] in rural area. The sample size selected was 68, in which 34 mothers of severely malnourished children under four years of age were selected as an experimental group and 34 mothers of well-nourished as a control group.

Purposive sampling technique was used. The result revealed that the knowledge level of the control group was higher (59%) when compared to the experimental group. There is no significant relationship between the level of knowledge and demographic variables[11].

Our study is not in concordance with other study conducted by Divya et al, 2013[8]. They found that there is no significant association between knowledge level of mother and selected demographic variables.

Our study disagree with study conducted by Chetan[12], It indicates that there is a significant association between knowledge regarding nutrition for under five with selected demographic variables such they include, like age, occupation of mother and monthly income.

Our study reveals that only (3%) had high knowledge about kwashiorkor diseases, (32%) had high knowledge of Iron deficiency anemia. Mishra RSK et al[11] did a similar study and the result reveals that about 65% of mothers had low knowledge, 15% had average knowledge, 20% had high knowledge.

Approximately similar findings were noted by Kavitha, 2015[9], percentage wise distribution of level of knowledge of mothers of under-five children shows that highest percentage (46.6%) of mothers scored between 30%-60% revealing average knowledge about malnutrition and 36.6% of mothers scored below 30% depicts that poor knowledge. Further 16.6% of them scored above 60% depict good knowledge. Therefore it can be interpreted that most of the mothers are having average knowledge regarding malnutrition.

Malnutrition is a significant public health problem. Thus the implementation of appropriate health awareness program and improvement in socioeconomic condition improving nutritional status.

Finally, the researcher concluded that the knowledge of mothers has an important role in the maintenance of the nutritional status of the children.

The limitations of this study included the absence of a comparative group and the absence of interventions like providing information regarding prevention and management of nutritional problems

Conclusion

We conclude that 64% of the mothers had high knowledge about the essential nutrients. More than two-thirds of the mothers had low knowledge about kwashiorkor diseases and (49%) of the mothers had average knowledge of Iron deficiency anemia.

Recommendations

The study recommended that the Ministry of Public Health and Population to set up awareness programs to promote knowledge of mothers regarding to breastfeeding and balance food .Further research is a need with large sample size in different cities in Yemen.

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