

Assessment of Mothers' Knowledge About Nutritional Status of Preschool Children in Al-Najaf City

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ABSTRACT: Background: Nutrition is central to the promotion of normal growth and development among children. It has been found that malnutrition is, in fact, one of the most important public health problems for preschool children. The nutritional status of this age group may be related to several demographic factors associated with the mother.

Objectives of the study: To assess mothers' knowledge level regarding preschool children nutritional status and to find out the relationship between mothers' knowledge and their socio demographic data.

Study Design: A descriptive (cross-sectional) study design is used through the present study in order to achieve the study objectives. October 15th, 2023 until January 1st, 2024.

Study Sample: A Non-Probability (Purposeful Sample) of 51 mother who have preschool child., were included in the present study.

Setting of the Study: The study was conducted in Al-Najaf city.

Results: study results presented that the overall assessment of mother's knowledge regarding nutritional status knowledge was good.

Conclusion: Most of the mothers had previous knowledge about the topic from the media. Also, they got good level of knowledge regarding nutritional status for the preschool child and it's been found that there is a significant relationship between mothers' knowledge and their residency type.

Recommendation: Further studies should be conducted regarding mothers' knowledge, attitude and practice about all children age levels especially preschool children and improving and identifying the knowledge gabs.

Keywords: Nutritional Status, Preschool Children.

INTRODUCTION

"Children are the future of society and mothers are guardians of that future" (1). Malnutrition is the term that theoretically concerns both aspects, under-nutrition and over-nutrition (2). Childhood is termed as the golden age. Nutritional needs from an early age are very important, balanced nutritional intake will make the development of children healthy and intelligent (3). To avoid malnutrition and the problems of retarded growth, acute child nutrition, and so on.

Adverse nutrition in early childhood can impair children's physical and/or mental development and, hence, increase vulnerability to the risk of fatality from communicable diseases or other serious infections, which eventually results in a higher economic burden on a society (2). Nutrition has become a greater problem of health in Many countries (5). Among children, under five years of age, in the developing world, almost one-third are stunted, and the proportion of those who are underweight is higher among rural than urban children (6). Proper nutrition is extremely vital in children's growth and development as it supports the attainment of normal growth and development. Malnutrition is then ranked as one of the most important public health issues concerning preschool children. Meanwhile, the nutritional status of this age group is influenced by some demographic factors associated with the mother. While some studies have reported that maternal nutritional knowledge is positively associated with the nutritional status of children, others have also shown that adequate knowledge per se is not always translated into appropriate actions (8).

METHODOLOGY

Study design: Descriptive cross-sectional study was adopted in order to achieve the stated objectives. The study began from October 15th, 2023 until January 1st, 2024.

Study sample:

A Non-Probability (Purposeful Sample) of 51 mother who have preschool child.

2.5 The Study Instrument:

An online questionnaire is constructed by the researcher to assess mothers' knowledge regarding nutritional status for preschool age.

The complete instrument of study consists of 2 parts:

SOCIODEMOGRAPHIC DATA

This part consists of (8) items, which includes age, educational level, residency, occupation, economic status, husband occupation, do you have any information about nutrition status and from where you got the info.

Part 2: Nutrition knowledge:

It consists of 13 items multiple choice question (MCQ) form.

DATA COLLECTION

The data collection was done by applying the constructed the Arabic version of the questionnaire. The questionnaire was answered by the participants individually without the intervention of the researcher. The data collection process started from October, 22th, 2023 to November, 20th, 2024. The respondents spend about 5 minutes to answer all items.

VALIDITY OF THE RESEARCH

Content validity refers to the extent to which a measure covers all facets that define the construct of interest adequately. Content validity for the questionnaire developed earlier will be established by deploying a panel of experts to assess the conceptual relevance, clarity, and sufficiency of the questionnaire in measuring the intended concepts. A draft questionnaire is prepared and administered to eleven (11) experts. The recommendations of the experts have been taken into account. Modifications have been made so far, and the instrument's final copy is ready to use as a data collection tool. (9) has mentioned that the panel should normally consist of at least three experts, but if the build is complex, a larger number may be necessary.

Statistical Analysis:

The data was analyzed using Microsoft excel 2021 and IBM SPSS V.26

1. Descriptive Data Analysis

Tables (Frequencies, Percentages and Mean).

2. Inferential Data Analysis

This approach used to accept or reject the statistical hypothesis, which includes One-Way ANOVA test.

RESULTS

Table 3.1: Descriptive statistical analysis (frequencies and percentages) of studied sample.

<i>Demographic Data</i>		Freq.	%
<i>Age</i>	17-22 years	7	13.7
	23-28 years	25	49.0
	29-34 years	12	23.5
	35-40 years	3	5.9
	41-46 years	2	3.9
	47-52 years	2	3.9
<i>Educational Level</i>	Can read and write	5	9.8
	Graduated from primary school	2	3.9
	Graduated from middle school	1	2.0
	Graduated from high school	2	3.9
	Graduated from the institute	3	5.9
	Graduated with a bachelor's degree	37	72.5
<i>Residency</i>	Master's or doctorate	1	2.0
	Urban	46	90.2
<i>Occupation</i>	Rural	5	9.8
	Employee	33	64.7

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	Housewife	18	35.3
<i>Social and economic situation</i>	Owning a private home	16	31.4
	Owning a rental home	4	7.8
	Owning a shared home with the family	24	47.1
	Owning a private transportation such as a car	4	7.8
	Owning some family assets	2	3.9
	Other	1	2.0
	<i>Husband Work</i>	School teacher, small business owner, military man, policeman	0
Physician, engineer, university professor, director of a large company, commercial land owner		5	9.8
Unemployed, retired		38	74.5
Other		8	15.7
<i>Have you obtained any information about the nutritional status of pre-school children previously?</i>	Yes	42	82.4
	No	9	17.6
<i>If the answer to the previous question is (yes), where did you get it?</i>	Physician	15	29.4
	Nurses	4	7.8
	Family	12	23.5
	Friends	1	2.0
	The media	19	37.3
Total		51	100

Table (3.1) Shows the majority of the study sample in age of between 23-28 years (49%), Graduated with a bachelor's degree (72.5%), live in urban residency (90.2%), Employee (67.7%), Owning a private home (31.4%), the husband is Unemployed or retired (74.5%), also (82.4%) have information about nutritional status and the majority of the study sample got it from the media (37.3%).

Table 3.2: Frequency distribution of Nutritional status Knowledge items.

<i>Nutritional status Knowledge</i>			Freq.	%	Mean of score	Assess.
<i>Q1</i>	A balanced diet consists of	Protein, carbohydrates, fats and minerals only	1	2.0	1.98	Fair
		It contains all the nutrients, protein, vitamins, minerals, carbohydrates, fats, and water	50	98.0		
		Other	0	0		
<i>Q2</i>	Is one of these fruits considered the main source of iron?	Banana	3	5.9	2.75	Good
		Orange	7	13.7		
		Dates	41	80.4		
<i>Q3</i>	One of these foods is considered a rich source of calcium	Apples	1	2.0	2.94	Good
		Cucumber	1	2.0		
		Milk and its products	49	96.1		
<i>Q4</i>	One of the following options is considered very important for the thyroid gland	Potassium	5	9.8	2.51	Good
		Vitamin D	15	29.4		
		Iodine	31	60.8		
<i>Q5</i>	Meat and grains are the main source of the vitamin	C	1	2.0	2.31	Fair
		B6	33	64.7		
		B1	17	33.3		
<i>Q6</i>	Eating foods rich in cholesterol and saturated fat causes anemia, obesity,	False	11	21.6	2.57	Good
		True	40	78.4		
		Other	0	0		

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	heart disease and respiratory disease					
Q7	What do you believe is the main source of energy in the body?	Vitamins	19	37.3	2.10	Fair
		Minerals	8	15.7		
		Lipids	24	47.1		
Q8	The basic function of protein (muscle formation, blood, energy, and reducing the chances of constipation)	False	4	7.8	2.82	Good
		Ture	46	90.2		
		Other	1	2.0		
Q9	What is the main source of fiber?	Orange	14	27.5	2.43	Good
		Dates	1	2.0		
		Vegetables	36	70.6		
Q10	What is the vitamin whose deficiency leads to blindness?	A	51	100	3.00	Good
		B	0	0		
		D	0	0		
Q11	One of these foods causes dental problems when eaten in large quantities	Fruits	2	3.9	2.92	Good
		Sweets	49	96.1		
		Eggs	0	0		
Q12	Rickets is a disease that affects children.... What do you think is its cause?	Vitamin C deficiency	6	11.8	2.75	Good
		Vitamin A deficiency	1	2.0		
		Vitamin D deficiency	44	86.3		
Q13	Dietary fiber has an important role in the body, as it works on the digestion process, reducing constipation, the absorption process, and the blood clotting process.	False	5	9.8	2.78	Good
		True	45	88.2		
		Other	1	2.0		

Poor: MS = 1-1.66; Moderate: MS =1.67-2.33; Good: MS≥2.34

Table (3.2). Shows that most of the mothers got good knowledge level in the study items except for item number 1,5,7 they got fair level of knowledge.

Table 3.4: Relationship between demographic data and Nutritional status knowledge With One-Way ANOVA test.

Demographic Data		Nutritional status knowledge		F	d.f.	p-value
		Fair Freq.	Good Freq.			
Age	17-22 years	0	7	1.047	9	0.421 (NS)
	23-28 years	1	24			
	29-34 years	2	10			
	35-40 years	1	2			
	41-46 years	0	2			
	47-52 years	0	2			
Educational Level	Can read and write	0	5	0.913	9	0.523 (NS)
	Graduated from primary school	0	2			
	Graduated from middle school	0	1			
	Graduated from high school	0	2			
	Graduated from the institute	1	2			
	Graduated with a bachelor's degree	3	34			
Master's or doctorate	0	1				

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<i>Residency</i>	Urban	4	42	2.293	9	0.034 (S)
	Rural	0	5			
<i>Occupation</i>	Employee	4	29	1.622	9	0.141 (NS)
	Housewife	0	18			
<i>Social and economic situation</i>	Owning a private home	0	16	1.460	9	0.195 (NS)
	Owning a rental home	0	4			
	Owning a shared home with the family	4	20			
	Owning a private transportation such as a car	0	4			
	Owning some family assets	0	2			
	Other	0	1			
<i>Husband Work</i>	School teacher, small business owner, military man, policeman	0	0	0.847	9	0.579 (NS)
	Physician, engineer, university professor, director of a large company, commercial land owner	0	5			
	Unemployed, retired	3	35			
	Other	1	7			
<i>Have you obtained any information about the nutritional status of preschool children previously?</i>	Yes	4	38	0.864	9	0.564 (NS)
	No	0	9			
<i>If the answer to the previous question is (yes), where did you get it?</i>	Physician	2	13	0.407	9	0.924 (NS)
	Nurses	0	4			
	Family	1	11			
	Friends	0	1			
	The media	1	18			

P-Value ≤ 0.05 (significant); p-value > 0.05 (non-significant)

Table (4.4) Show that there is significant relationship between mothers' knowledge level and residency ($P = 0.034$), while there is non-significant relationship between the other demographic data.

DISCUSSION

Part-I: Discussion of the study sample socio-demographic data:

Most of the study sample age is between 23-28 years old (49%), we believe that these ages were the ages most interested in the topic of our research, so the majority of participants were among them. This was close to Prasyto *et al.*, 2023 results that got (36.22%) of their study sample aged between 25-35 years.

Part-II: Discussion of the mothers' knowledge about nutritional status for their preschool children:

The overall results regarding mothers' knowledge about nutritional status for their preschool children were good with (92.2%) of them got good knowledge level. While, (7.8%) got fair level of knowledge and none of them have poor level of knowledge. This is due to several reasons that led to this result and we will discuss it further in this chapter.

Part-III: Discussion of the relationship between mothers' knowledge about nutritional status for their preschool children and their socio demographic data:

In the previously mentioned results, place of residence appeared to be an important, statistically significant factor that has a direct relationship to mothers' level of knowledge with ($P = 0.034$). It has been shown that there is a positive relationship between it and mothers' knowledge, and this is due to the reason that the difference in place of living directly affects the mothers' level of knowledge. **Chapter Five**

CONCLUSIONS AND RECOMMENDATIONS

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5.1. Conclusions:

The study found that most mothers knew about the topic and learned it through the media. Besides, most mothers understood the nutritional status of preschool children, and most did so fairly well. A relationship of significance was noted between knowledge and place of residency. It speaks for how much demographics influence levels of awareness.

5.2. Recommendations:

Based on the study conclusions, the study recommends the following:

- Further studies should be conducted regarding mothers' knowledge, attitude and practice about all children age levels especially preschool children.
- Ministry of Health should employ a mass media to increase mothers' knowledge about nutritional status for preschool children.
- Emphasizing a collaborated work between Ministry of Health, Ministry of higher Education to lead more researches-based practice topic about proper nutritional principles for the children.
- Additional teaching programs and educational courses needed to increase mothers' knowledge about nutritional status for preschool children in urban and rural society.

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