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Research Article

A Study to Assess the Knowledge, Attitude and Practices of Mothers Regarding Nutritional Needs and Health of Under- Five Children in Tirupathi

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Abstract

A study to assess the knowledge, attitude and practices of mothers regarding nutritional needs and health of under- five children in Tirupathi is conducted on 100 mothers in Tirupathi, with the objectives to find out the knowledge, attitude and practices of under-five children's mothers regarding nutritional needs, growth and development, immunization and nutrition during illness; and the relationship between demographical variable and independent variable.

Results of the study shows that mothers have adequate knowledge regarding immunization, growth and development of children, good practices and fair attitude. But the knowledge scores regarding nutritional needs in general and during ill ness are very low.

Mothers have scanty knowledge regarding childhood nutritional deficiencies. There is no association between independent variables like age, family, income and occupation, but observed an association between mother's education level and knowledge regarding nutrition and health of under five -children.

Conclusion: From the above study, we could recommend that the mothers should educate regarding nutritional deficiencies and nutritional supplementation to improve the health of under -five children.

Keywords: Nutrition; Health; Under Five Children; Mothers; Knowledge; Attitude; Practices

Introduction

All human beings need a balanced amount of nutrients for proper functioning of the body system. Nutrition is a fundamental pillar of human life, health and development throughout the entire life span (World Bank, 2006). Proper food and good nutrition are essential for survival, physical growth, mental development, performance and productivity, health and wellbeing. Malnourishment is the major cause of ill health, morbidity and mortality of under five children worldwide. Undernourished children have lower resistance to infection and are more likely to die from common childhood ailments as diarrheal diseases and respiratory infections. Those who survive may be locked into a vicious cycle of recurring sickness and faltering growth, often with irreversible damage to their cognitive and social development. Malnutrition prevents individuals, community and the whole country from achieving full potential, and is closely related with struggle for survival; poverty and underdevelopment.

India has the largest number of children (under-five years) who are stunted i.e. 48 million, or more than four times the number in countries such as Pakistan and Nigeria (Add reference). According to the information on population and housing census conducted in

2007 G.C, 74.22% of the total populations were living in rural areas in India. Most of the women with rural back ground lack basic education.

There are many studies on ICDS project and government schemes of maternal and child health, very few studies are done on mothers knowledge, attitude and practices regarding child health and nutrition, hence this study is under taken with objectives like -To assess the level of knowledge on child health and nutrition among mothers/primary care givers of under- five children. To assess the level of Attitude on child health and nutrition among mothers/primary care givers of under- five children. To assess the level of practices on child health and nutrition among mothers/primary care givers of under- five children and To find out the relationship/association between demographic variables and KAP of mothers/primary care givers of under-five children.

Materials and Methods

Research approach is descriptive by nature using survey method. Survey settings are the selected hospitals in Tirupathi. Sample consists of mothers/ primary care givers of under five children. Sample size of hundred mothers is selected randomly from the rural villages of Chandragiri Mandalam, Chittoor district. Institutional Ethics committee permission is taken prior to initiating the study. The purpose of the study is explained to the subjects and written consent is taken assuring them the confidentiality. The survey tool is prepared by the investigator and validated by the experts in the field. Reliability of the tool is obtained using Cronbach alpha formula using SPSS as 0.94.

Objectives

- To assess the level of knowledge on child health and nutrition among mothers/primary care givers of under- five children.
- To assess the level of Attitude on child health and nutrition among mothers/primary care givers of under- five children.
- To assess the level of practices on child health and nutrition among mothers/primary care givers of under- five children
- To find out the relationship/association between demographic variables and KAP of mothers/primary care givers of under-five children.

Hypothesis

- H_{01}: The knowledge of mother/care givers of under-five children on child health and nutrition is poor.
- Ho_2: The attitude of mother/care givers of under-five children on child health and nutrition is poor.
- H_{03}: The Practices of mother/care givers of under-five children on child health and nutrition is poor.
- H_{04}: There is no relationship/association between dependent and independent variables of the study
- Sample size: 100.

Inclusion criteria

Mothers

- Those who are willing to participate
- Those who are available at the time of data collection period.

Exclusion criteria

- Those who are unwilling to participate
- Those who are unable to communicate.

Description of tool

Investigator developed a tool based on the review of books, journals, web site, and opinion of nursing and medical experts.

The tool consists of two parts

The tool is prepared by the investigator. It is Validated by twenty experts, reliability is 0.94.

- **Part A:** It deals with the demographic variables of mothers like Age, Sex, Marital Status, Educational Level, Occupation, Number of Children and sources of knowledge
- **Part B:** It deals with questions aimed at assessing knowledge, Attitude and practices of mothers of under five children regarding nutritional needs, growth and development, immunization and nutrition during ill health.

Dependent variable

Knowledge of mothers/primary care givers on child health and nutrition of under five children.

Independent (determinant) variable

Educational status of mothers.

Data analysis

Data analysis is done statistically by using SPSS soft ware 27th version in our university statistics department lab.

Descriptive statistics

Frequency and percentage, Mean and standard deviation.

Inferential statistics

Chi-square test.

Results and Discussion

Part A

Following tables shows the demographic details of under -five children's mothers.

The following table shows Demographical variable - AGE

		N-100
Age	**Frequency**	**Per cent**
Below 21 years	22	22.0
22yrs - 32yrs	40	40.0
33yrs - 42yrs	36	36.0
43yrs above	2	2.0
Total	100	100.0

Table 1a

The following table illustrates Demographical variable - Monthly Income

Monthly Income	Frequency	Percent
Below 10000 Rs	52	52.0
11000 - 22000	38	38.0
23000 - 32000	8	8.0
Above 32000	2	2.0
Total	100	100.0

Table 1b

The following table shows Demographical variable - Education

Education	Frequency	Percent
Illiterate	16	16.0
Primary Education	48	48.0
High school education	18	18.0
College/Technical education	18	18.0
Total	100	100.0

Table 1c

The following table shows Demographical variable - Occupation of Mother

Occupation of Mother	Frequency	Per cent
Daily wage earner	18	18.0
Self employed/business	12	12.0
Private/Govt. employee	20	20.0
Housewife	50	50.0
Total	100	100.0

Table 1d

The following table illustrates Demographical variable - Age at Marriage

Age at Marriage	Frequency	Percent
Below 18	44	44.0
19-22	42	42.0
23-26	12	12.0
above 27	2	2.0
Total	100	100.0

Table 1e

The below table shows Demographical variable - Marriage Status

Marriage Status	Frequency	Percent
Separated	12	12.0
Divorced	2	2.0
Widowed	8	8.0
Live with husband	78	78.0
Total	100	100.0

Table 1f

The following table shows Demographical variable - Size of family

Size of family	Frequency	Percent
below 3 members	38	38.0
4-6	52	52.0
7-9	10	10.0
Total	100	100.0

Table 1g

The following table shows Demographical variable Number of children

No. of children	Frequency	Percent
One	76	76.0
Two	22	22.0
Three	2	2.0
Total	100	100.0

Table 1h

The following table illustrates Demographical variable - Age of children

Age of children	Frequency	Percent
1-6 months	36	36.0
7-11 months	32	32.0
1-5 years	30	30.0
Above 5 years	2	2.0
Total	100	100.0

Table 1i

The following table shows Demographical variable - Dietary Habit

Dietary Habit	Frequency	Percent
Vegetarian	8	8
Non-vegetarian	92	92.0
Vegan	0	0
Ova vegetarian	0	.0
Total	100	100.0

Table 1j

Analysis of Part-B

Table 2 Knowledge scores N-100

The following table shows the knowledge scores of mothers of under- five children regarding health and nutrition.

	Knowledge	n	Mean	SD
1	Knowledge regarding nutritional needs of under five children	100	25	1.1
2	Knowledge regarding growth and development	100	58	1.3
3	Knowledge regarding immunization	100	56	1.1
4	Knowledge regarding nutritional needs and childhood nutritional diseases	100	14	1.2

Table 2

The above table shows that are knowledge scores of mothers regarding nutritional needs in general and during illness of under five children are very low fifteen and fourteen respectively.

The following table shows the practices and attitude scores of the mothers regarding the health and nutrition of under five children.

Description	N	Mean	SD
Practice scores of mothers	100	55	1.2
Attitude scores of mothers	100	58	1.4

Table 3

The above table shows that practices and attitude scores regarding nutrition and health of under five children are fifty five and fifty eight respectively are above average of fifty percent.

Association between independent and dependent variable- knowledge and education status of mothers.

S. No	Demographic variable		Education								Chi-square	
		Illiterate		Primary Education		High school education		College/Technical education		Cal	P val (<0.05)	
		F	%	F	%	F	%	F	%			
1.	5 years old child needs fast foods	Strongly agree	2	4.0%	2	4.0%	0	0.0%	5	10.0%	20.778	0.054 NS
		Agree	0	0.0%	9	18.0%	1	2.0%	1	2.0%		
		Some what agree	4	8.0%	7	14.0%	5	10.0%	1	2.0%		
		Disagree	1	2.0%	5	10.0%	2	4.0%	2	4.0%		
		Strongly disagree	1	2.0%	1	2.0%	1	2.0%	0	0.0%		
2.	Children remain under weight because they always play and run around	Strongly agree	3	6.0%	3	6.0%	2	4.0%	3	6.0%	19.028	0.088 NS
		Agree	0	0.0%	7	14.0%	1	2.0%	1	2.0%		
		Some what Agree	0	0.0%	10	20.0%	2	4.0%	3	6.0%		
		Disagree	5	10.0%	2	4.0%	3	6.0%	2	4.0%		
		Strongly Disagree	0	0.0%	2	4.0%	1	2.0%	0	0.0%		

2.	Pneumonia is a disease of child due to excessive wetness in lungs so hot food need to be given	Strongly Agree	1	2.0%	4	8.0%	1	2.0%	6	12.0%		18.502	0.030 S
		Agree	2	4.0%	9	18.0%	1	2.0%	1	2.0%			
		Some what Agree	2	4.0%	6	12.0%	6	12.0%	1	2.0%			
		Disagree	3	6.0%	5	10.0%	1	2.0%	1	2.0%			
		Strongly disagree	-	-	-	-	-	-	-	-			
3.	I give my child chocolates and pastries when ever demands	Strongly agree	2	4.0%	3	6.0%	0	0.0%	5	10.0%		23.869	0.005S
		Agree	0	0.0%	6	12.0%	3	6.0%	2	4.0%			
		Some what Agree	2	4.0%	12	24.0%	1	2.0%	2	4.0%			
		Disagree	4	8.0%	3	6.0%	5	10.0%	0	0.0%			
		Strongly Disagree	-	-	-	-	-	-	-	-			
4.	I stop feeding my 3 years old baby when refuses to eat	Strongly disagree	2	4.0%	6	12.0%	0	0.0%	4	8.0%		24.456	0.018 S
		Agree	0	.0.0%	6	12.0%	3	6.0%	1	2.0%			
		Some what agree	1	2.0%	9	18.0%	5	10.0%	1	2.0%			
		Disagree	2	4.0%	2	4.0%	1	2.0%	3	6.0%			
		Strongly disagree	3	6.0%	1	2.0%	0	0.0%	0	0.0%			
5	I try home remedies first if given hot and spicy food	Strongly agree	2	4.1%	2	4.1%	2	4.1%	3	6.1%		27.367	0.007 s
		Agree	0	0.0%	6	12.2%	3	6.1%	5	10.2%			
		Some what agree	1	2.0%	1	22.4%	1	2.0%	1	2.0%			
		Disagree	1	2.0%	5	10.2%	2	4.1%	0	0.0%			
		Strongly disagree	3	6.1%	0	0.0%	1	2.0%	0	0.0%			
6.	I give cold drinks to child during summer	Strongly agree	3	6.0%	0	0.0%	1	2.0%	5	10.0%		38.907	0.000 S
		Agree	1	2.0%	8	16.0%	1	2.0%	1	2.0%			
		Some what agree	0	0.0%	11	22.0%	3	6.0%	2	4.0%			
		Disagree	1	2.0%	5	10.0%	4	8.0%	1	2.0%			
		Strongly Disagree	3	6.0%	0	0.0%	0	0.0%	0	0.0%			
7.	I don't know what to do if my child is falling ill frequently	Strongly agree	3	6.0%	4	8.0%	0	0.0%	5	10.0%		18.970	0.089 NS
		Agree	0	0.0%	6	12.0%	3	6.0%	1	2.0%			
		Some what agree	1	2.0%	7	14.0%	4	8.0%	3	6.0%			
		Disagree	4	8.0%	5	10.0%	1	2.0%	0	0.0%			
		Strongly disagree	0	0.0%	2	4.0%	1	2.0%	0	0.0%			
8.	I contact the doctor if my child feels sick after trying home remedies	Strongly agree	2	2.0%	6	12.0%	2	4.0%	5	10.0%		20.094	0.065 NS
		Agree	2	4.0%	4	8.0%	4	8.0%	1	2.0%			
		Some what agree	0	0.0%	8	16.0%	2	4.0%	1	2.0%			
		Disagree	1	2.0%	5	10.0%	1	2.0%	2	4.0%			
		Strongly Disagree	3	6.0%	1	2.0%	0	0.0%	0	0.0%			
9.	I often give fast food item that my child demands when we go out as everyone else will be watching	Strongly agree	5	10.0%	16	32.0%	4	8.0%	8	16.0%		20.981	0.013 S
		Agree	1	2.0%	8	16.0%	1	2.0%	1	2.0%			
		Some what agree	2	4.0%	0	0.0%	2	4.0%	0	0.0%			
		Disagree	0	0.0%	0	0.0%	2	4.0%	0	0.0%			
		Strongly disagree	-	-	-	-	-	-	-	-			

Table 4

NS - Not Significant; S – Significant.

The above table shows significant association between education and six segments of knowledge scores. It shows significant association between knowledge and education. Rest of the demographical variables have not shown any significant association.

Discussion

The analysis of Knowledge, Attitude and practice score of under-five age children shows that though knowledge scores are inadequate but Attitude, Practice scores are fair and satisfactory.

The above results clearly show that there is an association between education and knowledge of the mothers of under five children, hence educating the mothers regarding nutrition needs and to avoid nutrition deficiencies among children may reduce under five age children's disease burden, mortality and morbidity rates of young - India [1-13].

Conclusion

India is a growing country to days children are tomorrows citizens. To make India healthy every mother should know the importance of nutrition for her growing child. It is essential to educate mothers regarding nutrition and health of children. It is not enough to give nutritious food through government schemes but also proper utilization of the government schemes also important. To improve the health of children we need to educate mothers regarding the nutrition needs of children especially during childhood illnesses.

Recommendations

More number of research studies on modalities of educating Indian women regarding children's' nutrition and health are needed. ICT modalities need to be developed to educate mothers regarding nutrition and health of children for welfare of the country as this study shown the association between education and knowledge.

Conflict of Interest

Declare if any financial interest or any conflict of interest exists. There are none as per my knowledge.

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