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A comparative study to assess the knowledge, attitude and practice (K, A & P) regarding importance of nutrition in reduction of malnutrition among the mothers of under five children in selected rural and urban areas of Vijayapur district

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ABSTRACT

Background:
Malnutrition is a silent killer among fewer than five children throughout the world. By knowing the mothers knowledge, attitude and practice level we understand the exact reason of malnutrition in under five children and take appropriate action to reduce it.

Methods:
Quantitative approach, Non-experimental comparative descriptive research design was used. Samples drawn through Purposive sampling technique. Total 52 rural and 52 urban mothers were participated in research. Data was collected on Knowledge, attitude and practice.

Results:
Mean knowledge, attitude ans practice score of urban mothersis (24.98), (117.6), (77.56) is higher than mean score ofrural mothers (23.27), (109.9), (73.38) respectively. Knowledge, Attitude, and Practice were corelated positively with p value < .001in all the aspect. Socio demographic variables such as Literacy status, Religion, Occupation, Income, Housing condition and type of family found associated with knowledge scores. Sociodemographic variables like Literacy status, Occupation, Housing condition were associated with Attitude scores. Sociodemographic variables like Literacy status, Religion, Occupation, Income associated with practice scores of rural and urban mothers.

Conclusion: Edcucationis found significantly associatedwith knowledge, attitude and practice (K,A and P) scores. Hence literacy statusof mothers helps in reducing the malnutriton in underfive children.

Introduction

Food is eatable substance, required for protection of our body against infection, for repair of cells, proper growth and development and vital processes[1].Based on age, sex and other factors decide the amount of nutrients required for our body. Adequate diet is needed for the child both in health as well as in disease condition[2].As like there is no standard or universally approved or accepted definition of malnutrition, The main cause of the malnutrition is poverty, inadequate food intake, problem in digestion and child suffering with any disease condition[3].

A survey was conducted by the Dept of WCD in 2023 across Karnataka to assess the malnutrition among under six-year children. Results showed that 2,20,049 children were suffering with moderate to severe malnutrition. Bidar and Kolar districts had a greater number of children suffering with malnutrition[4]. NFHS Survey-5 in the year 2019-2021 among under five children reveals that stunting (low height for age) was 35.5%, underweight (low weight for age) was 32.1% and wasting (low weight for height) was 19.3% emphasizing on magnitude of this problem in India[5].

A study was conducted in Vijayapura district among under five children states that 43% of children were suffering with malnutriton[6].Vijayapura district nutritional profile revealed that 46% children were low height for age and 39% were low weight for age[7].

A descriptive study was conducted in Chickballapur district of Karnataka to determine (K, A and P) of rural mothers. Total 200 mothers were participated in the research. Study results revealed that two third of the mothers had low (33.5%) and medium (32.0%) knowledge whereas one third (34.5 %) mothers had high knowledge. Among mothers 36% had less favorable attitude, favorable attitude found in 34% and more favorable attitude found in 30%. In case of food practice aspect, poor practice found in 40.0%, 35.5% had moderate practice, and 24.5% had better practice[8].

The researcher justifies that on personal visit to nutritional rehabilitation center of district hospital,

various Primary health centers and Anganwadi centers of Vijayapur district found that more than 30% children were suffering with moderate to severe acute malnutrition in both rural and urban areas. Most of the mothers were still not aware of importance of nutrition for growth and development of child hence to bridge the gap of knowledge, improve the practice and modify the attitude towards importance of nutrition, researcher has selected this topic.

Research objectives:

1. To assess the knowledge, attitude and practice (K, A and P) regarding importance of nutrition in reduction of malnutrition among the rural and urban mothers of under five children.
2. To compare theknowledge, attitude and practice (K, A and P)regarding importance of nutrition in reduction of malnutrition among the rural and urban mothers of under five children
3. To find the correlation between knowledge, attitude and practice(K, A and P)regarding importance of nutrition in reduction of malnutrition among the rural and urban mothers of under five children.
4. To find association between knowledge, attitude and practice (K, A and P) scores with selected sociodemographic variables of rural and urban mothers of under five children

Assumption

1. Urban mothers may have more(K, A and P) scores than the rural mothers about importance of nutrition in reduction of malnutrition.
2. There may be correlation between (K, A and P) scoresabout importance of nutrition in reduction of malnutrition among the urban & rural mothers.
3. Socio-demographic variables may also influence K, A and P

MATERIALS AND METHODS:

Approach of the research : Quantitative approach

Design of the research **:** Comparative descriptive research design of non-experimental research.

Source of Data **:** Data was collected from mothers of children less than five years in rural and urban areas of Vijayapura district.

VARIABLES:

Demographic variables **:** Mothers Age, Religion, Income, Literacy status, occupation, Family type, Housing condition, Health care services, source of information.

Research variables **:** Knowledge, Attitude and Practice (K, A and P) about importance of nutrition in reduction of malnutrition.

Criteria for selection of sampling:

Samples were selected on the bases of **inclusive** and the **exclusive criteria.**

a) Inclusion Criteria :

1. Mothers of children between ages of 1 year to 5 years at selected rural and urban areas of Vijayapura district.
2. Mothers who gave the consent to participate in the study.

b) Exclusion Criteria :

1. Mothers of under five children who are critically ill.
2. Mothers who undergone nutritional training.

Place of study conducted: Research is carried out at Kanamadi primary health centre(rural) and Adil Shahi urban health centre (urban) areas of Vijayapur district.

Sample **:** Mothers residing at rural and urban areas of Vijayapur district and having children between age of 1 to 5years were selected as samples of the research.

Sampling Technique` **:** Non-probability Purposive Sampling Technique was used to choose the Samples.

Total Sample Size : Sample size of the study was 104 samples (52 rural and 52 urban mothers).

Duration of data collection: 4 weeks

Tool for data collection: The Tool was prepared under four Segments.

Segment I -Sociodemographic data of mothers of children under 5 years.

Segment II - Organized knowledge questionnaire to find out the knowledge of rural and urban mothers of children under five years of age about importance of nutrition in reduction of malnutrition.

Segment III -Likert scale is prepared to determine the attitude of rural and urban mothers of children less than 5 years about importance of nutrition in reduction of malnutrition.

Segment IV -self-reported organized practice questionnaire on reduction of malnutrition.

Validity and reliability of the tool:

Tool was validated by the 7 subject experts,1 statistician and 1 language expert. Reliability coefficient of the tool was found to be 0.93.

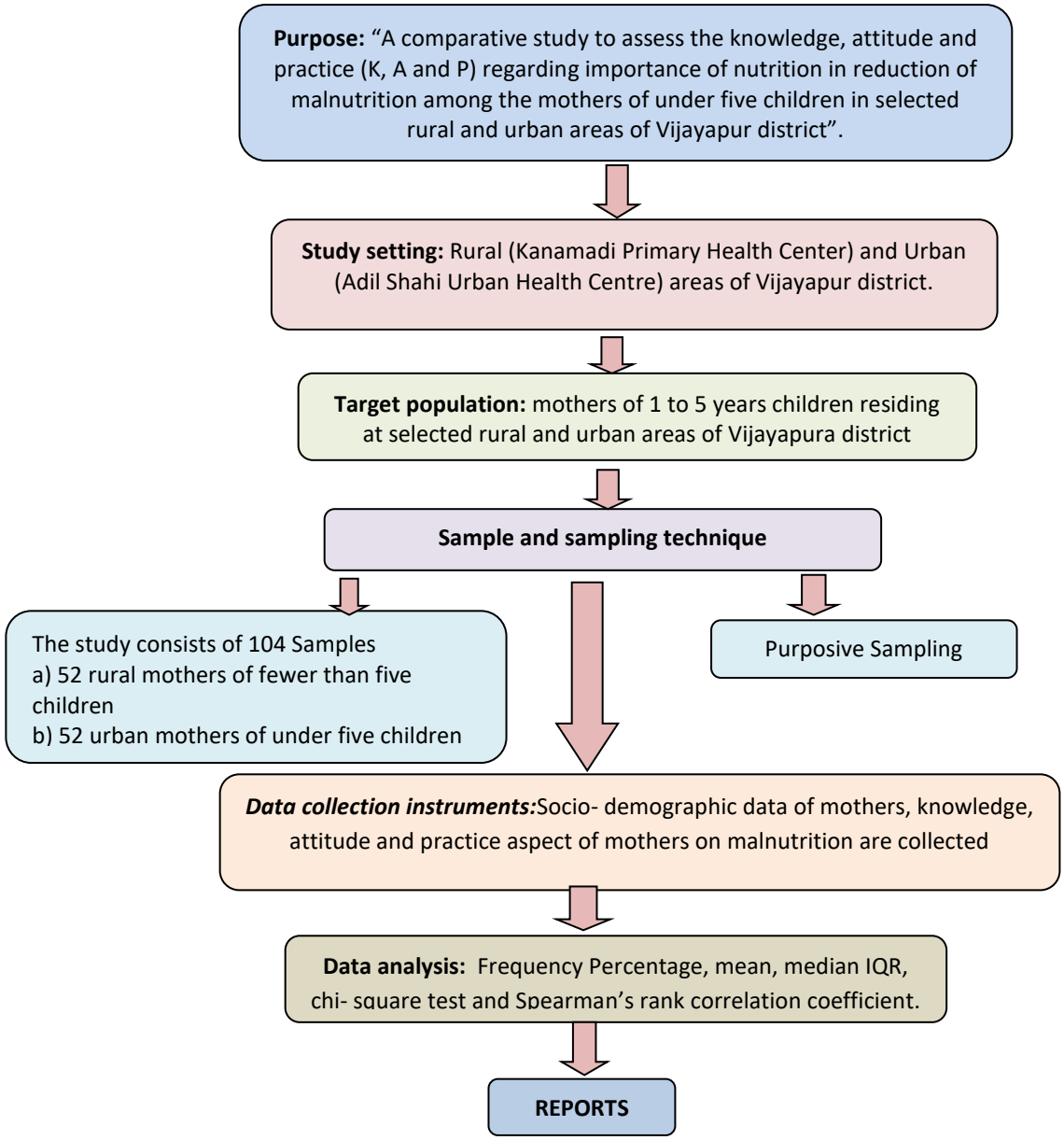
Ethical clearance:

BLDEA's SBMPINSIECRHS approves the study with reference number 535/1/2020 dated- 05.02.2020.

Data Analysis:

Data was analysed using descriptive measures like Mean, Median, IQ Ratio and inferential measures like Mann-Whitney U test and Chi square test.

Flow chart of the study:



Results:

Result is presented fewer than five classifications**.**

Classification- I: Mothers Sociodemographic Data.

Table – 1: Rural and Urban Mothers Socio-demographic Data **N=104**

Characteristics	Category	Cat.	Group		Total
			Rural	Urban	
Age of mothers in years	20-25	F	19	11	30
		%	36.50%	21.20%	28.80%
	25-30	F	20	30	50
		%	38.50%	57.70%	48.10%
	30-35	F	9	5	14
		%	17.30%	9.60%	13.50%
	35 and above	F	4	6	10
		%	7.70%	11.50%	9.60%
Religion	Christian	F	0	2	2
		%	0.00%	3.80%	1.90%
	Hindu	F	36	35	71
		%	69.20%	67.30%	68.30%
	Muslim	F	16	15	31
		%	30.80%	28.80%	29.80%
Education	Graduate and above	F	11	13	24
		%	21.20%	25.00%	23.10%
	High school	F	10	15	25
		%	19.20%	28.80%	24.00%
	No formal education	F	8	9	17
		%	15.40%	17.30%	16.30%
	Primary education	F	17	11	28
		%	32.70%	21.20%	26.90%
	PUC	F	6	4	10
		%	11.50%	7.70%	9.60%
Occupation	Daily wage work	F	20	22	42
		%	38.50%	42.30%	40.40%
	Government Job	F	4	5	9
		%	7.70%	9.60%	8.70%
	House wife	F	15	10	25
		%	28.80%	19.20%	24.00%
	Private job	F	13	15	28
		%	25.00%	28.80%	26.90%
Income of the family/M	<5000	F	15	15	30
		%	28.80%	28.80%	28.80%
	10000-15000	F	8	6	14
		%	15.40%	11.50%	13.50%
	15000-20000	F	2	3	5
		%	3.80%	5.80%	4.80%
	5000-10000	F	19	23	42
		%	36.50%	44.20%	40.40%
	More than 20000	F	8	5	13
		%	15.40%	9.60%	12.50%
Type of family	Joint	F	27	29	56
		%	51.90%	55.80%	53.80%
	Nuclear	F	25	23	48
		%	48.10%	44.20%	46.20%

Housing condition.	Kaccha house	F	7	8	15
		%	13.50%	15.40%	14.40%
	Pucca house	F	18	27	45
		%	34.60%	51.90%	43.30%
	Semi Pacca house	F	27	17	44
		%	51.90%	32.70%	42.30%
Health care service	Indigenous system of medicine	F	0	1	1
		%	0.00%	1.90%	1.00%
	Private sector	F	20	20	40
		%	38.50%	38.50%	38.50%
	Public health sector	F	32	31	63
		%	61.50%	59.60%	60.60%
Source of information	Electronic media	F	15	16	31
		%	28.80%	30.80%	29.80%
	Health personal	F	30	28	58
		%	57.70%	53.80%	55.80%
	Print media	F	0	1	1
		%	0.00%	1.90%	1.00%
	Relative and neighbour	F	7	7	14
		%	13.50%	13.50%	13.50%

Classification–II: Assessment the (K, A and P)about nutritional importance in reduction of malnutrition among the mothers of children below the age of 5 years in rural and urban areas.

Table – 2: Assessment of the knowledge about nutritional importance in reduction of malnutrition among the rural and urban mothers. **N=104**

Knowledge	Cat.	Group		Total
		Rural	Urban	
Adequate	F	6	8	14
	%	11.50%	15.40%	13.50%
Inadequate	F	28	22	50
	%	53.80%	42.30%	48.10%
Moderate	F	18	22	40
	%	34.60%	42.30%	38.50%
Total	F	52	52	104
	%	100.00%	100.00%	100.00%

Table –3: Assessment of the attitude towards nutritional importance in reduction of malnutrition among the rural and urban mothers. **N=104**

Attitude	Cat.	Group		Total
		Rural	Urban	
Favorable	F	12	19	31
	%	23.10%	36.50%	29.80%
Neutral Attitude	F	30	25	55
	%	57.70%	48.10%	52.90%
Unfavorable	F	10	8	18
	%	19.20%	15.40%	17.30%
Total	F	52	52	104
	%	100.00%	100.00%	100.00%

Table –4: Assessment of the practiceabout nutritional importance in reduction of malnutrition among the rural and urban mothers. **N=104**

Practice	Category	Group		Total
		Rural	Urban	
Good	F	8	11	19
	%	15.40%	21.20%	18.30%
Moderate	F	21	25	46
	%	40.40%	48.10%	44.20%
Poor	F	23	16	39
	%	44.20%	30.80%	37.50%
Total	F	52	52	104
	%	100.00%	100.00%	100.00%

Classification–III: Comparison of the (K, A and P) concern to nutritional importance in reduction of malnutrition among the mothers of children up to the age of 5 years in rural and urban regions.

A Mann-Whitney U test was computed to make the Knowledge comparison. The findings of the test showed that the average knowledge score (24.98) of urban mothers was greater than average knowledge score (23.27) of rural mothers with Mann-Whitney U test value1153 (p value -0.195) that is not significant at 5% level.

A Mann-Whitney U test was computed to make the attitude level comparison. The findings of the test showed that the average attitude score (117.6) of urban mothers was greater than average attitude score (109.9) of rural mothers with Mann-Whitney U test value1038 (p value -0.041) that is significant at 5% level.

A Mann-Whitney U test was computed to make the practice score. The findings of the test showed that the average practice score (77.56) of urban mothers was greater than average practice score (73.38) of rural mothers with Mann-Whitney U test value1157 (p value -0.204) that not is significant at 5% level.

Classification-IV: Correlation between (K, A and P)regarding nutritional importance in reduction of malnutrition amongst the mothers of children below 5 years of age in selected rural and urban regions.

Table –5: Correlation between Knowledge, Attitude and Practice regarding importance of nutrition in reduction of malnutrition among the mothers of under five children in selected rural and urban areas.

Variables	Spearman's rho value	p-value	Remark
Knowledge - Attitude	0.866	< .001	**Significant***
Knowledge - Practice	0.921	< .001	**Significant***
Attitude – Practice	0.781	< .001	**Significant***

*** at 5% level.**

Table-5depictsCorrelation of Knowledge and Attitude(K&A) (0.866), Knowledge and Practice (0.921) and Attitude with Practice (0.781)shows positive correlation and p value < .001in all the aspect found statistically significant at 5% level.

Classification-V: Association of knowledge, attitude and practice scores with sociodemographic variables of mothers of children below 5 years age in rural and urban areas.

A significant association was determined between socio-demographic variables like Education (χ^2 =42.986, p-value 0.000), Occupation (χ^2 =28.474, p-value 0.000), Income of the family/M (χ^2 =22.483, p-value 0.004), Housing condition (χ^2 =9.761, p-value0.045) with knowledge scores of rural mothers whereas in urban mothers a Significant association was found in variables like religion (χ^2 =13.923, p-value- 0.008), education (χ^2 =55.12, p-value- 0.000), income of the family/M (χ^2 =17.282, p-value- 0.027), and type of family (χ^2 =6.070, p-value- 0.048).

A significant association was determined between socio-demographic variables like Education (χ^2 =52.175, p-value 0.000), Occupation (χ^2 =22.144, p-value-0.001), Housing condition. (χ^2 =11.072, p-value-0.026), with their attitude scores in rural mothers whereas in urban mothers a significant association

was found in only one variables (i.e.) Education (χ^2 =37.614, p-value 0.000).

A significant association was determined between socio-demographic variables like Education (χ^2 =47.020, p-value 0.000), Occupation (χ^2 =14.444, p-value-0.025) with their practice scores of rural mothers whereas in urban mothers a significant association was found in variables like Religion (χ^2 =9.549, p-value 0.049), Education (χ^2 =61.975, p-value 0.000) and income of the family/M (χ^2 =16.826, p-value-0.032).

Discussion:

In this study rural and urban mothers knowledge, attitude and practice scores found similar with the study results conducted by Placide, Mojeed on KAP of caretakers/mothers inRwanda on malnutrition[9]. On comparison urban mothers mean knowledge, attitude and practice scores are higher than rural mothers similar finding were supported by the study conducted by Sireesha.N, about (K, A and P) of mothers on complementary foodatTirupathi[10].

In this study there is a correlation exist in all the aspect of knowledge, attitude and practice. Research carried by Norhan Zeki Shaker on knowledge, attitude, and practice of mothers on young feeding practices states the same results[11]. Similar finding of association with sociodemographic data was supported by the Study conducted by Sheba Shaji on KAP of mothers regarding prevention of malnutrition[12].

Conclusion:

Raring and caring of children is primarily done by Mothers. Under-five children are more vulnerable to various risk factors which made them to suffer with diseases. In this study both urban mothers and rural mothers were having low knowledge, floating attitude and poor practices kills regarding importance of nutrition in reduction of malnutrition. In this regard, the study concludes that the mother's education, favorable attitude and skilled practice is very important in reduction of malnutrition.

Recommendations:

Similar research can be conducted with

1. The largest sample size and randomization. &
2. ARCT can be conducted with triple binding technique.

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Conflicts of interest: NIL

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