A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICE OF STAFF NURSES REGARDING MALNUTRITION AND NUTRITIONAL CARE OF HOSPITALIZED CHILDREN IN A TERTIARY CARE HOSPITAL BELAGAVI, KARNATAKA.

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Abstract: Food is the main fuel that runs a human body, both in health and illness. Food and Nutrition play a major role in the prevention of almost all diseases and promotion of health. Unfortunately at the global level, India is being placed among the highest ranked countries on the basis of number of malnourished children[1]. Childhood is a crucial period where we need to pay some extra attention for the nutritional needs and nutritional care of a child, as it acts as a strong pillar for his/her growth and development and prevention of malnutrition. Despite many medical advances over the past 20 years, the prevalence of malnutrition among hospitalized children has not decreased. Since the staff nurses spent more time with patients than any other healthcare workers and the patient recovery is greatly affected by the quality of care these nurses provide to their patients in all the aspects of care, including the nutritional aspect. Present study was conducted to assess the Nurses' Knowledge, Attitude and Practice towards nutritional care of the hospitalized children, in order to ensure quality nutritional care for hospitalized children who are at risk of developing malnutrition or who are already victims of it. A non-experimental descriptive research design was adopted to carry out the present study on a sample of 40 staff nurses working at a Tertiary care hospital of Karnataka by administering MKAP questionnaire. The results of the study showed that majority of the staff nurses 28(70%) had average knowledge and neutral attitude regarding malnutrition and nutritional care among hospitalized children , while as 7(17.5%) had good knowledge and positive attitude and 5(12.5%) of them had poor knowledge and negative attitude regarding malnutrition and nutritional care among hospitalized children. The majority of the staff nurses 25(62.5%) showed neutral practice regarding malnutrition and nutritional care among hospitalized children, while as 10 (25%) showed beneficial practice and 5 (12.5%) of them showed non-beneficial practice regarding malnutrition and nutritional care among hospitalized children. In the present study the association of Levels of KAP with demographic characteristics of the staff nurses was calculated by using chi-square test and no association was found between the two except for gender. The study concluded that most of the staff nurses are having average knowledge and neutral attitude and practice towards malnutrition and nutritional care of hospitalized children

Keywords: Malnutrition, Nutritional care, staff nurses, hospitalized children.

INTRODUCTION

"The doctor of the future will no longer treat the human frame with drugs, but rather will cure and prevent diseases with nutrition"

(THOMAS EDISON)

The preliminary step to combat any problem is to know the problem. If we are well acquainted with a problem, it becomes easy for us to find a solution to it. When talking to malnutrition, it is very important for all the health professionals to have adequate knowledge about the prevention, causes, clinical signs and management of malnutrition. As food is the main fuel that runs a human body, both in health and illness, food and nutrition play a major role in the prevention of almost all diseases and promotion of health. Nutrition in biological sciences is

defined as "the science of foods, the nutrients and other substances there in, their action, interaction and balance in relation to health and disease; the process by which an organism ingests, digests, absorbs, transports and utilizes nutrients and finally disposes their end products".[2] A balanced nutrition is the one that contains all the nutrients in an appropriate proportion as required by our body at a particular stage of life. When there is an imbalance between the required nutrients by the body and consumed nutrients by an individual (may be due to deficiency, extra intake, or any other problem), it leads to a condition known as malnutrition. Childhood is a crucial period where we need to pay some extra attention for the nutritional needs and nutritional care of a child, as it acts as a strong pillar for his/her growth and development and prevention of malnutrition.

At the global level, India is being placed among the highest ranked countries on the basis of number of malnourished children.[1] As per the National Family Health Survey (NFHS)-4 (2015-16) "35.7 % under five children are underweight, 38.4% are stunted and 21% are wasted in India, however , the national average of underweight under five children has reduced from 42.5% as reported in NFHS-3(2005-06) to 35.7% in NFHS-4(2015-16)."According to WHO(19 September 2018 report), there is a higher risk of death due to common childhood illnesses like diarrhea, pneumonia and malaria, in the malnourished children and nutritional factors account for about 45% of under five children deaths. Children who get hospitalized for some complex diseases are more prone to develop secondary malnutrition because of their disease condition , disturbed eating patterns, reduced intake of food, increased energy needs and expenditure, and hospital environment.[3] Despite many medical advances over the past 20 years, the prevalence of malnutrition among hospitalized children has not decreased. Malnutrition is known to have detrimental effects on clinical outcomes.[4] Therefore there is a need for proper nutritional care and malnutrition screening in order to prevent them from becoming malnourished and ensure quick recovery.

There is a direct relationship of longer hospital stay with increased Nutritional Risk Score (NRS) and decreased Nutritional Status (NS) in hospitalized children below 3 years of age and there is a need to evaluate all the children for NRS and NS at the time of admission so that appropriate nutritional interventions will be provided to them by the caregivers.[5] Studies have proved that nurses are unable to provide sufficient nutritional care to the patients due to lack of adequate nutritional knowledge.[6] Adequate nutritional knowledge and good practical skills among nurses is of utmost importance for prevention and cure of malnutrition among hospitalized children. Nurses need to keep themselves updated about the newer trends and practices for early recognition of deteriorations in the nutritional status of these children and ensure appropriate remedial measures for prevention of malnutrition. Nurses are the primary care givers and spent most of the time with the patients, therefore they can ensure a good nutritional intake and find out any signs of deterioration in nutritional status at the earliest. Adequate knowledge and a positive attitude towards nutritional care of the hospitalized children is an important way to improve the nutritional status of these children that can in turn lead to a quick recovery and prevention of malnutrition. Malnutrition is emerging as a serious matter of concern affecting the recovery process. In addition to the daily routine care of administering medications, monitoring and maintaining vital sciences, administering other therapies, providing health education etc., a positive nutritional and metabolic support should be made an important aspect of patient care by the professional nurses. But the unfortunate thing is that many studies found that there is an inadequate knowledge about nutrition and nutritional care among nurses, as a result of that the nutritional needs of patients are not met adequately.

For the quick and speedy recovery and for prevention of secondary malnutrition in hospitalized children, it is very important to take special care of their nutritional aspect by careful observations, assistance while eating and nutritional screening. Since the staff nurses spent more time with patients than any other healthcare worker and the patient recovery is greatly affected by the quality of care these nurses provide to their patients in all the aspects of care, including the nutritional aspect .All the staff nurses play a major role in the nutritional care of the hospitalized children and need to be well acquainted with the nutritional knowledge and nutritional care of hospitalized children in order to ensure a quick recovery and prevent nutritional deficiencies among them. Assessing the nurses Knowledge, Attitude and Practice towards nutritional care of the hospitalized children is of supreme importance in order to ensure quality nutritional care for hospitalized children who are at risk of developing malnutrition or who are already victims of it. Our study can pave a way for further studies to bridge the knowledge, attitude and practice gaps, if present and improve the overall quality of nutritional care provided by the professional nurses to hospitalized children.

Methodology

The research method used in the present study was a non-experimental descriptive research design. The study was conducted on 40 staff nurses working in Pediatric wards of KLE's Dr Prabhakar Kore Charitable Hospital Belagavi, who were selected by non-probability purposive sampling technique.

The researchers used a Standardized tool (MKAP- Knowledge, attitude and Practice questionnaire) for collection of relevant and required data. The tool is devised by Laur C et al as an important tool to determine the Knowledge Attitude and Practice of hospital staff with respect to patient malnutrition and nutrition care .This tool consists of 7 items to collect the baseline data of the participants, 20 items to assess the Knowledge and attitude and 7 items to assess the Practice of participants. MKAP total is calculated by adding total KA score + Total P score.

Results

The data collected from the participants has been organized and presented under the following headings:

1. Frequency and percentage distribution of the participants by demographic variables.
2. Distribution of staff nurses by levels of Knowledge, Attitude and Practice
3. Association between demographic characteristics of staff nurses with levels of Knowledge, Attitude and Practice.

Table 1: Distribution and percentage of staff nurses by age, gender, years of experience, organization type, job type and type of work unit

n = 40

S No.	Demographic Variables	Frequency(f)	Percentage(%)
1	**Age in years**		
	<30 years	20	50.0
	30-39 years	14	35.0
	40-49 years	6	15.0
2	**Gender**		
	Male	12	30.0
	Female	28	70.0
3	**Years of experience**		
	<2 years	10	25.0
	2-5 years	11	27.5
	6-10 years	19	47.5
4	**Organization type**		
	Hospital	40	100.0
	Nursing Agency	0	0
	Other	0	0
5	**Job Type**		
	Full Time	31	77.5
	Part Time	9	22.5
6	**Type of work unit**		
	Medical	16	40.0
	Critical Care	14	35.0
	Surgical	10	25.0
	Total	40	100.0

Table 1 reveals that majority of the staff nurses 20 (50 %) belonged to < 30 years of age group, 14 (35 %) to 30-39 years age group and 6 (15%) to 40-49 years age group. Out of 40 participants 28 (70%) were females and 12(30%) were males. Majority 19 (47.5%) of the participants had 6-10 years of experience, 11(27.5%) had 2-5 years of experience and 10(25%) had < 2 years of experience. It was found that all the 40(100%) participants were working in hospital. Out of 40 participants, majority 31(77.5%) were fulltime workers whereas 9(22.5%) were part time

workers. Total 16(40%) staff nurses were working in pediatric medical wards, 14(35%) were working in critical care units and 10(25%) were working in pediatric surgical wards.

Table 2: Frequency and percentage distribution of participants by levels of Knowledge and Attitude Scores.

Knowledge and practice level	Value	Frequency	Percentage
Good knowledge and Positive Attitude	≥ 81.95 (Mean + S.D and above)	7	17.5%
Average Knowledge and Neutral Attitude	45.25 – 81.95 (Mean - S.D to Mean +S.D	28	70%
Poor knowledge and Negative Attitude	≤ 45.25 (Mean - S.D and below)	5	12.5%

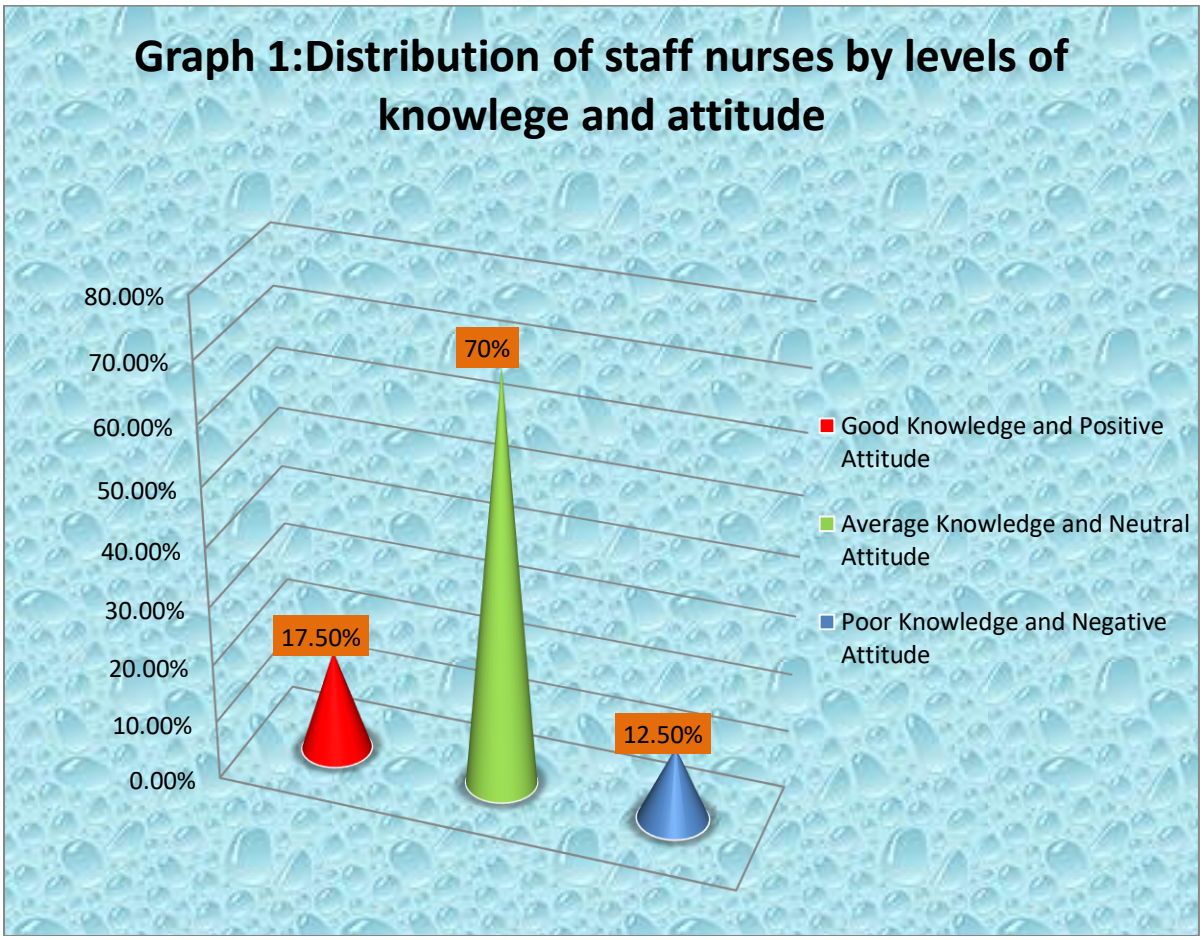

Table 2 and Graph 1 above shows that the majority of the staff nurses 28(70%) had average knowledge and neutral attitude regarding malnutrition and nutritional care among hospitalized children , while as 7(17.5%) had good knowledge and positive attitude and 5(12.5%) of them had poor knowledge and negative attitude regarding malnutrition and nutritional care among hospitalized children.

Table 3: Frequency and percentage distribution of participants by levels of Attitude Scores

Level of Practice	Value	Frequency	Percentage
Beneficial Practice	≥ 21.29 (Mean + S.D and above)	10	25%
Neutral Practice	8.30-21.29 (Mean - S.D to Mean +S.D	25	62.5%
Non-beneficial Practice	≤ 8.30 (Mean - S.D and below)	5	12.5%

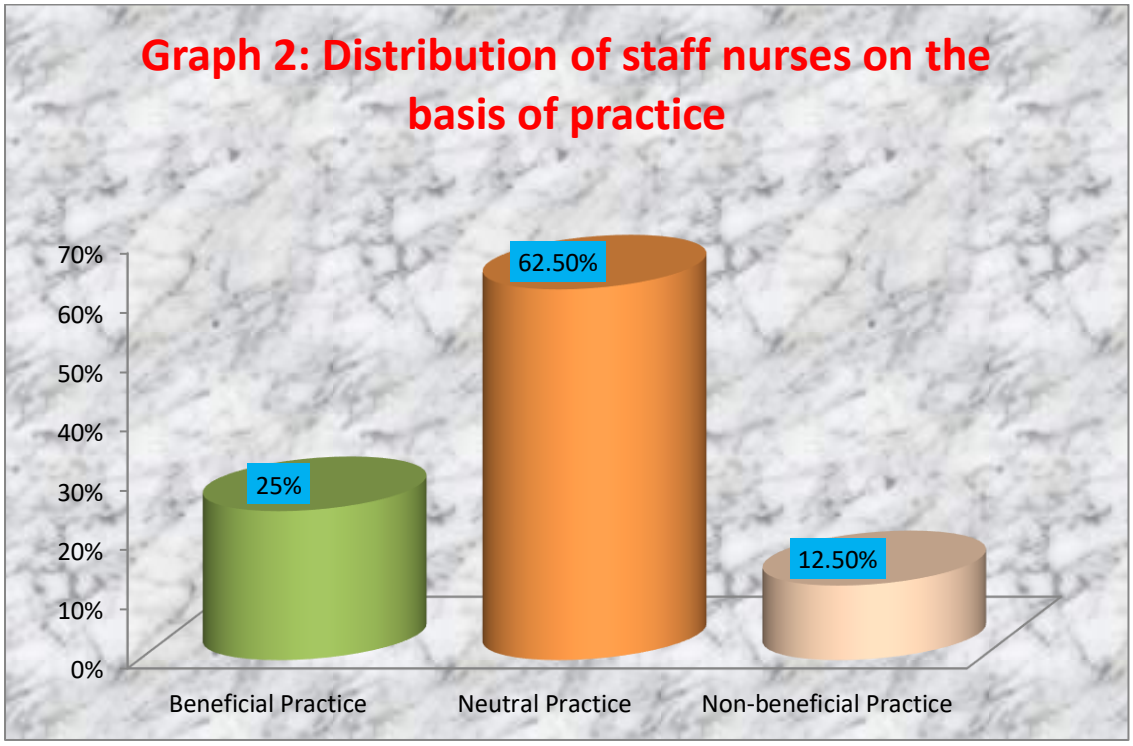

Table 3 and Graph 2 above reveals that the majority of the staff nurses 25(62.5%) showed neutral practice regarding malnutrition and nutritional care among hospitalized children , while as 10 (25%) showed beneficial practice and 5(12.5%) of them showed non-beneficial practice regarding malnutrition and nutritional care among hospitalized children.

Table 4: Association of demographic characteristics of adolescents with levels of Knowledge and Attitude Scores

S.no.	Socio-demographic Variables	Good Knowledge and Positive Attitude	Average Knowledge and Neutral Attitude	Poor Knowledge and Negative Attitude	χ^2 Calculated	p-value	df

1	**Age**						
	<30 years	3	14	3	4.120	.390	4
	30-39 years	3	10	1			
	40-49 years	3	2	1			
2					7.436	.o24*	2
	Gender						
	Male	3	5	4			
3							
	Female	6	21	1	4.962	.291	4
	Years of Experience						
	<2 years	1	6	3			
4	**2-5 years**	3	8	0			
	6-10 years	5	12	2			
5							
	Organization type						
	Hospital	9	26	5	4.245	.374	4
	Type of work unit						
6	**Medical**						
		3	9	4			
	Critical Care						
		3	10	1	1.553	.460	2
	Surgical						
		3	7	0			
	Job Type						
	Full Time						
		8					
	Part Time	1	20	3			
			6	2			

*Significant (p< o.o5)

Table 4 reveals that calculated chi-square value 4.120 (p-value=.390) for age is not significant at p< 0.05, calculated chi-square value 7.436 (p-value=.024) for gender is significant at p< 0.05, calculated chi-square value 4.968 (p-value=.291) for years of experience is not significant at p< 0.05, calculated chi-square value 4.245 (p-value=.374) for type of work unit is not significant at p< 0.05, and calculated chi-square value 1.553 (p-value=.460) for job type is not significant at p< 0.05.This means gender of staff nurses is associated with the levels of Knowledge and Attitude whereas age, years of experience , type of work unit and job type are not associated with the levels of Knowledge and Attitude scores, among staff nurses regarding malnutrition and nutritional care of hospitalized children

Table 5 Association between demographic characteristics of adolescents with levels of Practice Scores

S.no.	Socio-demographic Variables	Beneficial Practice	Neutral Practice	Non-beneficial Practice	χ^2 Calculated	p-value	Df
1	**Age**						
	<30 years	5	14	1	5.023	.285	4
	30-39 years	2	9	3			
2	**40-49 years**	3	2	1			
					.286	.867	2
	Gender						
	Male	3	7	2			
3							
	Female	7	18	3	5.159	.271	4
	Years of Experience						
	<2 years	1	8	1			
4							
	2-5 years	3	8	0			
	6-10 years	6	9	4			
5							
	Organization type						
	Hospital	9	26	5	2.057	.725	4
	Type of work unit						
6	**Medical**						
		4	10	2			
	Critical Care						
		2	10	2			
	Surgical				.086	.958	2
		4	5	1			
	Job Type						
	Full Time	8					
			19	4			
	Part Time	2					
			6	1			

Table 5 reveals that calculated chi-square value 5.023 (p-value=.285) for age is not significant at p< 0.05, calculated chi-square value .286 (p-value=.867) for gender is not significant at p< 0.05, calculated chi-square value 5.159(p-value=.271) for years of experience is not significant at p< 0.05, calculated chi-square value 2.057 (p-value=.725) for type of work unit is not significant at p< 0.05, and calculated chi-square value .086 (p-value=.958) for job type is not significant at p< 0.05.This means there is no association between demographic characteristics(age, gender, years of experience , type of work unit and job type) and levels of practice scores among staff nurses regarding malnutrition and nutritional care of hospitalized children

Discussion

When we get a sick child in the hospital we are more focused on the abnormal things. Our care and treatment mostly focuses on correction of deviations from the normal rather than using the normal things as the supporters for a good health, what we mean here is that food and nutrition play a great role in combating the minor and major illnesses in every age group but most importantly in the childhood. In our study we tried to assess the knowledge attitude and practice of staff nurses regarding malnutrition and nutritional care of hospitalized children. In the present study majority of the staff nurses 20 (50 %) belonged to < 30 years of age group, 14 (35 %) to 30-39 years age group and 6 (15%) to 40-49 years age group. Out of 40 participants 28 (70%) were females and 12(30%) were males. Majority 19 (47.5%) of the participants had 6-10 years of experience, 11(27.5%) had 2-5 years of experience and 10(25%) had < 2 years of experience. It was found that all the 40(100%) participants were working in hospital. Out of 40 participants, majority 31(77.5%) were fulltime workers whereas 9(22.5%) were part time workers. Total 16(40%) staff nurses were working in pediatric medical wards, 14(35%) were working in critical care units and 10(25%) were working in pediatric surgical wards.

After knowing the demographic details of our participants we also assessed there knowledge, attitude and practice levels and found that out of 40 staff nurses, 28(70%) had average knowledge and neutral attitude regarding malnutrition and nutritional care among hospitalized children , while as 7(17.5%) had good knowledge and positive attitude and 5(12.5%) of them had poor knowledge and negative attitude regarding malnutrition and nutritional care among hospitalized children.

As discussed earlier food and nutrition should be given supreme importance while taking care of hospitalized children but our study results showed that out of 40 participants, majority of the staff nurses 25(62.5%) showed neutral practice regarding malnutrition and nutritional care among hospitalized children , while as 10 (25%) showed beneficial practice and 5(12.5%) of them showed non-beneficial practice regarding malnutrition and nutritional care among hospitalized children.

After finding that most of the staff nurses have average knowledge , neutral attitude and practice towards malnutrition and nutritional care of the hospitalized children we also tried to find out the association of demographic characters of these nurses with their knowledge attitude and practice scores and found that calculated chi-square value 4.120 (p-value=.390) for age is not significant at p< 0.05, calculated chi-square value 7.436 (p-value=.024) for gender is significant at p< 0.05, calculated chi-square value 4.968 (p-value=.291) for years of experience is not significant at p< 0.05, calculated chi-square value 4.245 (p-value=.374) for type of work unit is not significant at p< 0.05, and calculated chi-square value 1.553 (p-value=.460) for job type is not significant at p< 0.05.This means gender of staff nurses is associated with the levels of Knowledge and Attitude whereas age, years of experience , type of work unit and job type are not associated with the levels of Knowledge and Attitude scores, among staff nurses regarding malnutrition and nutritional care of hospitalized children.

When talking about the practice scores we found that calculated chi-square value 5.023 (p-value=.285) for age is not significant at p< 0.05, calculated chi-square value .286 (p-value=.867) for gender is not significant at p< 0.05, calculated chi-square value 5.159(p-value=.271) for years of experience is not significant at p< 0.05, calculated chi-square value 2.057 (p-value=.725) for type of work unit is not significant at p< 0.05, and calculated chi-square value .086 (p-value=.958) for job type is not significant at p< 0.05.This means there is no association between demographic characteristics(age, gender, years of experience , type of work unit and job type) and levels of practice scores among staff nurses regarding malnutrition and nutritional care of hospitalized children.

Conclusions

The conclusions drawn on the basis of the findings of our study are:

- Most of the staff nurses are having average knowledge and neutral attitude and practice towards malnutrition and nutritional care of hospitalized children.
- Socio-demographic variables of staff nurses have no association with their Knowledge attitude and practice levels except for the gender, as males and females showed some difference in the levels of knowledge and attitude towards malnutrition and nutritional care of hospitalized children.

Recomemndations

On the basis of our findings it is suggested that

1. Further studies should be done on a large population at different settings to understand the gaps of knowledge attitude and practice in a better way.
2. In-service education programs and awareness programs are of utmost importance for enhancing the knowledge attitude and practice of staff nurses regarding malnutrition and related health risks in hospitalized children.

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