



A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED INSTRUCTIONAL PROGRAM ON KNOWLEDGE REGARDING MALNUTRITION, MANAGEMENT & ITS PREVENTION AMONG MOTHERS OF MALNUTRITION CHILDREN RESIDING AT TEGUR, DHARWAD DISTRICT.

Ms.Veena S Salunke¹, Mrs.Sherly A², Mrs. Shruti P Bulbule³

¹Final Year Basic B.Sc Nursing, KLES Institute of Nursing Sciences, Hubballi, Karnataka, India

²Assistant Professor & HOD, Dept. of Child Health Nursing, KLES Institute of Nursing Sciences, Hubballi, Karnataka, India

³Assistant Professor & HOD, Dept. of Nursing Foundation, KLES Institute of Nursing Sciences, Hubballi, Karnataka, India

ABSTRACT:

Background of the study: Malnutrition is a “man-made disease” which often starts in the womb and ends in the tomb. The impact of malnutrition on children is that they get recurrent infections and tend to be at greater risk for illness and death and often results in delayed mental development, poor school performance and reduced intellectual capacity.¹ One effective strategy to reduce malnutrition is to educate mothers of malnourished children about its causes, management and preventive measures. Improving mother’s knowledge and awareness can promote appropriate feeding and timely healthcare-seeking behaviour, thereby contributing to a reduction in the prevalence of malnutrition among children. **Objectives:** To assess the level of knowledge regarding malnutrition, management and its prevention among mothers of malnutrition children, Dharwad district. To evaluate the effectiveness of video assisted instructional programme regarding malnutrition, management and its prevention among mothers of malnutrition children in terms of gain in post test scores. To find out an association between pre-test knowledge scores with their selected socio-demographic variables. **Methodology:** An evaluative study was conducted among 40 mothers of malnutrition children residing at rural areas of Tegur, Dharwad district. Non probability, purposive sampling technique was used to select the sample. The data was collected using structured knowledge questionnaire. The research design used for the study was pre-experimental, one group pre-test post-test design. **Results:** The study results revealed that, majority of subjects in pre-test 08 (20%) had good knowledge and 25 (62.5%) had average knowledge and 07 (17.5%) had poor knowledge. Whereas after interactive session in post-test all of the subjects 40 (100%) had good knowledge regarding malnutrition and its prevention. With regards to

statistical association, there was an association between age and education of mother with their pre-test knowledge scores. **Conclusion:** The study concluded that the video assisted instructional program was effective in terms of gain in knowledge scores of the subjects regarding malnutrition, management & its prevention.

Key words: Malnutrition, malnourished children, prevalence, knowledge, effectiveness, mothers of malnutrition children, Video assisted instructional programme.

INTRODUCTION:

Malnutrition continues to be a major global public health challenge, affecting millions of people and posing a serious threat to child health, growth and survival, particularly in low- and middle-income countries. According to Global Hunger Index (GHI), global undernourishment increased from 7.5 to 9.2 in 2022, affecting approximately 735 million people worldwide. The 2023 Global Hunger Index ranked India 111th out of 125 countries, highlighting the country's ongoing challenges in addressing hunger and malnutrition. In India, the prevalence of undernourishment was 16.6%, while the under-five mortality rate was 3.1%. Malnutrition remains one of the most widespread conditions affecting child health, contributing significantly to childhood illness, impaired growth and mortality. Furthermore, India has the highest child wasting rate in the world at 18.7%, reflecting a severe burden of acute malnutrition among children. These emphasize the urgent need for strengthened nutritional interventions, improved healthcare services and effective public health policies to reduce malnutrition and improve child survival and development.²

STATEMENT OF PROBLEM:

"A study to evaluate the effectiveness of Video Assisted Instructional Program on knowledge regarding malnutrition, management & its prevention among mothers of malnutrition children residing at Tegur, Dharwad district."

OBJECTIVES OF THE STUDY:

1. To assess the level of knowledge regarding malnutrition, management and its prevention among mothers of malnutrition children residing at Tegur, Dharwad district.
2. To evaluate the effectiveness of video assisted instructional programme regarding malnutrition, management and its prevention among mothers of malnutrition children in terms of gain in post test scores.
3. To find out an association between pre-test knowledge scores with their selected socio-demographic variables.

HYPOTHESES:

H₁: The mean post-test knowledge scores of mothers of malnutrition children undergoing video assisted instructional programme will be significantly higher than the mean pre-test knowledge scores at 0.05 level of significance.

H₂: There will be a significant association between pre-test knowledge scores of mothers of malnutrition children with their selected socio-demographic variables at 0.05 level of significance.

METHODOLOGY:

Research approach: In this study an evaluative approach was used.

Research design: In this study pre-experimental: one group pre-test, post-test design was adopted

Variables:

Independent Variable: Video Assisted Instructional Program

Dependent Variable: knowledge regarding malnutrition, management & its prevention

Attribute Variables : age of mother, religion, education, diet pattern, number of children, occupation, monthly income, type of family and source of information regarding malnutrition and its prevention.

Setting: Tegur, Dharwad district

Population: In the current research study, the population comprises mothers of malnutrition children.

Target Population: In this current research study, the target population comprises of mothers of malnutrition children residing at rural areas of Tegur, Dharwad district.

Sample Size: The sample size selected for the present study includes 40 mothers of malnutrition children residing at rural areas of Tegur, Dharwad district.

Sampling technique:

In the present study, the researcher selected samples through Non probability; purposive sampling technique.

Criteria for selection of samples:

The criteria for selection of samples in this study involve:

Inclusion Criteria:

Mothers of malnutrition children who were:

- present at the time of data collection.
- able to understand Kannada or English.
- willing to participate in the study.

Exclusion Criteria:

Mothers of malnutrition children who were:

- Sick at the time of data collection.

DESCRIPTION OF THE TOOL:

The tool consists of structured knowledge questionnaire and following were the sections

- **Section I: Socio-demographic data:** Items on socio-demographic data of mothers of malnutrition children with 09 variables that include age of mother, religion, type of family, number of children, type of diet, educational status of mother, occupation of mother, monthly income of family, and source of information regarding malnutrition and its prevention.
- **Section II: Items on knowledge questionnaire:** This section consists of 48 items for obtaining level of knowledge of mothers of malnourished children regarding malnutrition and its prevention. A score value of one (1) was allotted for each correct response and zero (0) for each incorrect response. Total maximum score limit was 48.
 - ✓ Part A : 11 items on knowledge regarding nutrition and its importance in children.
 - ✓ Part B : 5 items on knowledge regarding general aspects of malnutrition.
 - ✓ Part C : 10 items on causes, signs and symptoms and diagnostic evaluation of malnutrition.
 - ✓ Part D : 5 items on knowledge regarding management of malnutrition.
 - ✓ Part E : 9 items on prevention and prognosis of malnutrition.
 - ✓ Part F : 8 items on knowledge regarding foods containing different nutrients.

FINDINGS OF THE STUDY**Table No 01: Frequency and percentage distribution of subjects according to sociodemographic variables.****n= 40**

SL No	Demographic variables	Frequency (f)	Percentage (%)
01.	Age in years		
	a) 20-24	22	55
	b) 25-29	13	32.5
	c) 30-34	03	7.5
	d) 35 and above	02	05
02.	Religion		
	a) Hindu	32	80
	b) Muslim	08	20
	c) Christian	00	00
	d) others	00	00
03.	Type of family		
	a) Nuclear	19	47.5
	b) Joint	18	45
	c) Extended	03	7.5
04.	Number of children		
	a) One	09	22.5
	b) Two	23	57.5
	c) Three	07	17.5
	d) Four and above	01	2.5
05.	Type of diet		
	a) Vegetarian	25	62.5
	b) Mixed	15	37.5
06.	Educational status of mother		
	a) Non formal education	04	10
	b) SSLC	17	42.5
	c) PUC	16	40
	d) Graduation	03	7.5
	e) Post-graduation	00	00
07.	Occupation of mother		
	a) Home-maker	29	72.5
	b) Daily wage worker	11	27.5
	c) Private employee	00	00
	d) Government employee	00	00
08.	Monthly income of family		
	a) Below 10,000/-	07	17.5
	b) 10,000 - 20,000/-	08	20
	c) 20,000 - 30,000/-	16	40
	d) 30,000 and above	09	22.5
09.	Source of information		
	a) Print media (newspaper, magazines, pamphlets)	00	00
	b) Electronic media	11	27.5
	c) Peer group and social media	00	00

d) Health professionals	29	72.5
e) Any other, specify	00	00

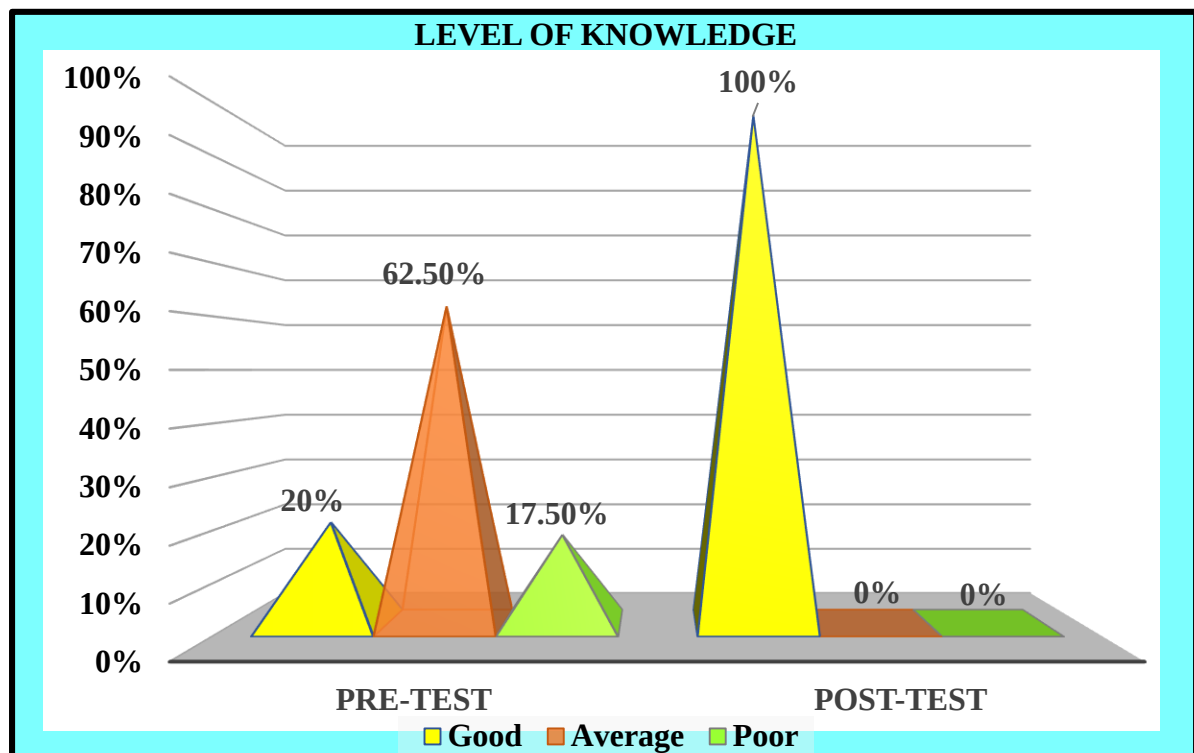
Table No 01: Reveals that

- With regards to the age of the subjects, 22(55%) were in the age group of 20-24 years, 13(32.5%) were in the age group of 25-29 years, 03(7.5%) were in the age group of 30-34 years and 02(5%) were in the age group of 35 years and above.
- Regarding religion of the subjects, 32(80%) belonged to Hindu religion and 08(20%) belonged to Muslim religion.
- Regarding type of family of the subjects, 19(47.5%) belonged to nuclear family, 18(45%) belonged to joint family and 03(7.5%) belonged to extended family.
- In consideration with number of children of the subjects, 09(22.5%) were having one child, 23(57.5%) were having two children, 07(17.5%) were having three children and 01(2.55) was having 4 children.
- Regarding type of diet of the subjects, 25(62.5%) were vegetarian and 15(37.5%) were having mixed diet.
- With regards to educational status of the subjects, 04(10%) were having non-formal education, 17(42.5%) were having secondary education, 16(40%) were having pre university education and 03(7.5%) were having graduate education.
- Regarding occupational status of the subjects, 29(72.5%) were home makers and 11(27.5%) were daily wage workers.
- Regarding monthly income of the subjects, 07(17.5%) were having below Rs 10,000/- per month, 08(20%) were having Rs10,000 to 20,000/- per month, 16(40%) were having Rs 20,000 to 30,000/- per month and 09(22.5%) were having above Rs 30,000/- per month salary.
- In consideration with source of information of the subjects, 29(72.5%) had knowledge from health professionals, and 11(27.5%) from electronic media.

Table No.02:Frequency and percentage distribution of knowledge scoresof subjects regardingmalnutritionand its prevention.**n= 40**

Level of Knowledge		Pre-test		Post-test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Good	(22.53 and above)	08	20	40	100
Average	(16.67 - 22.53)	25	62.5	00	00
Poor	(16.67 and below)	07	17.5	00	00

Table No. 02: reveals the distribution of level of knowledge among mothers of malnourished children regarding malnutrition and its prevention during pre-test and post-test. Most of them in the pre-test 08(20%) had good knowledge and 25(62.5%) had average knowledge and 07 (17.5%) had poor knowledge. After interactive session in post-test all of the subjects 40(100%) had good knowledge regarding malnutrition and its prevention.



Graph 01: The pyramid graph represents percentage distribution of subjects according to their level of knowledge scores in pre-test and post-test.

Table No 03: Mean, Median, Mode, Standard Deviation and Range of knowledge scores of subjects regarding malnutrition and its prevention.

n=40

Area of analysis	Mean	Median	Mode	Standard deviation	Range
Pre-test	19.6	20	20	2.93	10
Post-test	33.8	35.5	34	3.56	12
Difference	14.2	15.5	14	0.63	02

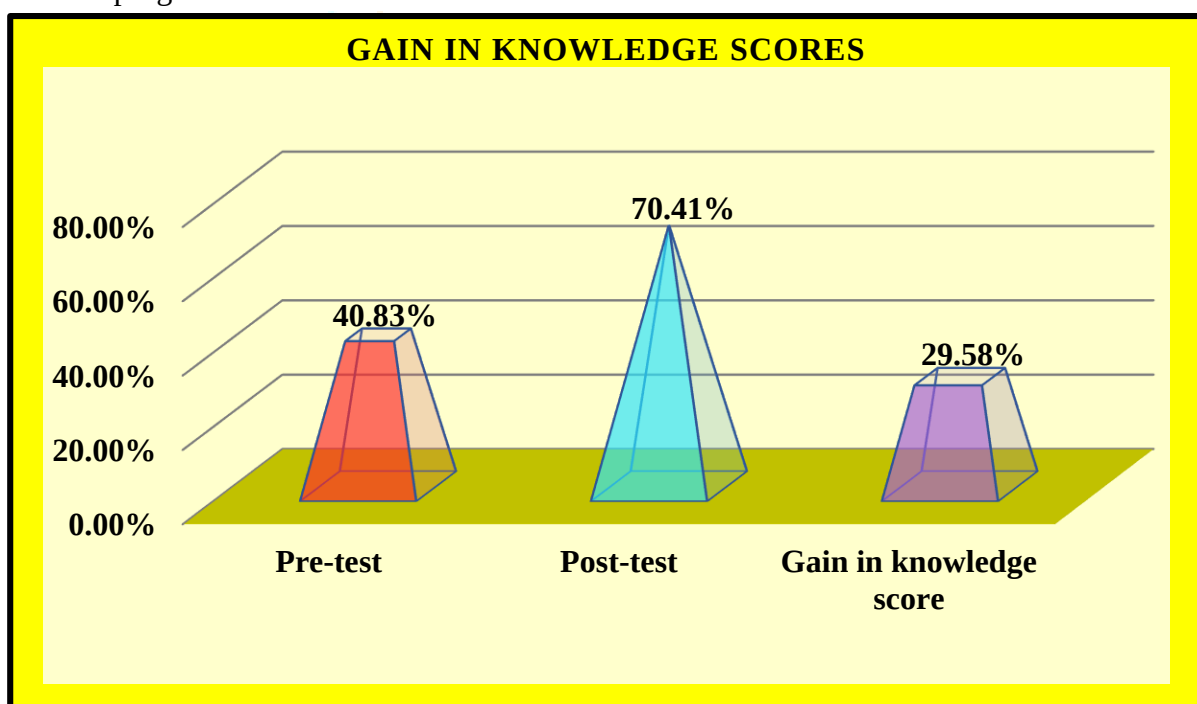
Table No. 03: reveals that, the mean pre-test knowledge score was 19.6, median was 20, mode was 20, standard deviation was 2.93, and range was 10. Whereas the mean post-test knowledge score was 33.8, median was 35.5, mode was 34, standard deviation was 3.56 and range was 12. The overall difference in mean knowledge score is 14.2, median is 15.5, mode is 14, standard deviation is 0.63, and range is 2.

Table No. 04: Pre-test, post-test percentage of knowledge scores of subjects regarding malnutrition, management and its prevention.

n =40

Items	Total Score	Mean % of knowledge scores of subjects		
		Pre-test	Post-test	Gain in knowledge
Knowledge questionnaire	1,920	40.83	70.41	29.58

Table No 04:reveals that there was 29.58% gain in knowledge after conducting the video assisted instructional programme.



Graph 02: The Partial Pyramid graph represents the mean percentage of gain in knowledge scores of subjects according to their knowledge scores.

Table No.05: Mean difference ($\bar{d}$), Standard Error of difference and paired 't' values of knowledge scores of subjects.

n=40

Mean Difference ($\bar{d}$)	Standard error of difference ($S\bar{d}E$)	Paired 't' values	
		Calculated	Tabulated
14.2	0.16	13.12*	2.02

* Significance at 0.05 level

Table No 05 reveals that the calculated paired 't' value ($t_{cal} = 13.12^*$) was greater than the tabulated value ($t_{tab} = 2.02$). Hence, H_1 was accepted. This indicates that the gain in knowledge score was statistically significant at 0.05 level of significance. Therefore, the video assisted instructional programme was effective to improve the knowledge of subjects.

Table No.06: Association between pre-test knowledge scores of subjects and selected socio demographic variables.

n=40							
Sl No	Demographic Variable	Good	Average	Poor	Chi Square Cal	Tab	df
1.	Age in Years						
	a. 20-24	07	14	01	15.40*	12.59	06
	b. 25-29	01	09	03			
	c. 30-34	00	02	01			
	d. 35 and above	00	00	02			
2.	Religion						
	a. Hindu	06	21	05	0.69	12.59	06
	b. Muslim	02	04	02			
	c. Christian	00	00	00			
	d. Others	00	00	00			
3.	Type of family						
	a. Nuclear	05	10	04	2.61	9.48	04
	b. Joint	03	13	02			
	c. Extended	00	02	01			
4.	Number of children						
	a. One	03	05	01	10.55	12.59	06
	b. Two	04	17	02			
	c. Three	01	03	03			
	d. Four & above	00	00	01			
5.	Type of diet						
	a. Vegetarian	05	15	05	0.31	5.99	02
	b. Mixed	03	10	02			
6.	Educational status of mother						
	a. Non-formal	00	01	03	24.89*	15.50	08
	b. SSLC	01	13	03			
	c. PUC	04	11	01			
	d. Graduate	03	00	00			
	e. Post-graduate	00	00	00			
7.	Occupation of mother						
	a. Home-maker	06	18	05	0.01	12.59	06
	b. Daily wage	02	07	02			
	c. Private employee	00	00	00			
	d. Government employee	00	00	00			
8.	Monthly income of family						
	a. Below Rs 10,000	02	05	00	8.1	12.59	06
	b. Rs 10,000 – Rs 20,000	00	06	02			
	c. Rs 20,000 – Rs 30,000	03	08	05			
	d. Rs 30,000 and above	03	06	00			
9.	Source of information						
	a. Print media	00	00	00	0.01	15.50	08
	b. Electronic media	02	07	02			
	c. Peer group and social media	00	00	00			
	d. Health professionals	06	18	05			
	e. Any other, specify	00	00	00			

Table No 06 reveals that

- The calculated chi-square value for age **15.40*** was more than tabulated value 12.592 Hence, **H_{2.1} was accepted.**
- The calculated chi-square value for religion 0.696 was less than tabulated value 12.592 Hence, H_{2.2} was rejected.
- The calculated chi-square value for type of family 2.61 was less than tabulated value 9.488. Hence H_{2.3}, was rejected.
- The calculated chi-square value for number of children 10.55 was less than tabulated value 12.592 Hence, H_{2.4} was rejected.
- The calculated chi-square value for type of diet 0.314 was less than tabulated value 5.991 Hence, H_{2.5} was rejected.
- The calculated chi-square value for educational status of mother **24.89*** was more than tabulated value 15.507 Hence, **H_{2.6} was accepted.**
- The calculated chi-square value for occupation of mother 0.01 was less than tabulated value 12.592 Hence, H_{2.7} was rejected.
- The calculated chi-square value for monthly income of family 8.1 was less than tabulated value 12.592. Hence, H_{2.8} was rejected.
- The calculated chi-square value for source of information 0.01 was less than tabulated value 15.507 Hence, H_{2.9} was rejected.

Therefore, the study concluded that there was an association found between two socio-demographic variables and that was age and education of mother. Hence H_{2.1} and H_{2.6} was accepted, whereas there was no association found between other variables. Hence hypotheses were rejected in these variables.

RECOMMENDATIONS:

1. A similar study can be undertaken for larger and wider sample size; this would be more pertinent in making broad generalization.
2. A descriptive study can be conducted to assess the knowledge, attitude and practice regarding malnutrition and its prevention among mothers of malnourished children.
3. A similar study may be conducted to assess the prevalence of malnutrition on large sample.
4. A comparative study can be conducted regarding malnutrition and its prevention among urban & rural mothers.

CONCLUSION:

Based on finding of the study, the following conclusions were drawn.

1. The majority pre-test knowledge scores of the subjects were average.
2. The overall post-test knowledge scores of the subjects after administration of Video Assisted Instructional Program were good.
3. Post-test knowledge scores after administration of Information education communication approach showed significantly improvement in the level of knowledge.
4. There was association found between two variables i.e, age and education of mother. whereas in regards with remaining variables there was no association found.

REFERENCES:

1. Nisha P. A study to assess the effectiveness of planned teaching programme on the knowledge regarding prevention of malnutrition among the mothers of under five children in selected urban area at Visnagar. Asian journal of nursing education and research [Internet] 2020 [cited on 2024 March 28]; 10(4):32. Available from: <https://ajner.com>
2. Global Hunger Index. [Internet] 2024 [cited on 2025 March 04]; Available from: <https://www.globalhungerindex.org/india.html>
3. World Health Organization (WHO). Healthy Growth and Development. [Internet] 2024 [cited on 2024 April 02]; Available from: <https://www.who.int>
4. Star health doctors. Importance of nutrition. [Internet] 2022 Nov 09 [cited on 2024 March 30]; Available from: <https://www.starhealth.in>
5. Aysha KK, Kristjana D, Kevin D, Barbara A, Valeria V, Giuseppina M et al. Main nutritional deficiencies. JPMH [Internet] 2022 Oct 17 [cited on 2024 April 02]; 63(2Suppl3):93-101. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles>
6. World Health Organization (WHO). Fact sheets-Malnutrition [Internet] 2024 March 1 [cited on 2024 April 02]; Available from: <https://www.who.in>
7. Qurrot UT. Protein energy malnutrition. [Internet] 2011 Dec 29 [cited on 2024 April 05]; Available from: <https://www.slideshare.net>
8. Arya R. Global Hunger Index 2023: India reports highest child wasting rates slips 4 notches on ranking. Down To Earth [Internet] 2023 Oct 13 [cited on 2024 April 07]; Available from: <https://www.downtoearth.org.in>

