



**“A STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE REGARDING
PREVENTIVE MEASURES OF 5F’S DISEASE TRANSMISSION AMONG MOTHERS OF
UNDER FIVE CHILDREN IN PALLITHOTTAM COSTAL COMMUNITY AREA,
KOLLAM.”**

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ABSTRACT

The research project undertaken was "A study to assess the knowledge and attitude regarding preventive measures of 5F's disease transmission among mothers of under five children in pallithottam coastal community area, Kollam". The objectives of the study were to assess the knowledge and attitude regarding preventive measures of 5F'S disease transmission among mothers of under five children in Pallithottam coastal community area, Kollam and to find out the association between the knowledge and attitude regarding preventive measures of 5F'S disease transmission among mothers of under five children in Pallithottam coastal community area, Kollam and selected demographic variables such as age of mothers, age of child, education of mothers occupation, and type of family. Non experimental research design was adopted for this study. The study was conducted among 60 mothers of under five children in pallithottam coastal community area, Kollam. In this study non-probability convenient sampling technique was used. The tool used for the data collection consisted of a demographic proforma, a structured knowledge questionnaire and as attitude scale. Basic introduction of the study was given to the subjects. The analysis of the data was based on the objectives of the study using descriptive and inferential statistics. The findings of the study revealed that education of mothers had an association with knowledge of mothers regarding preventive measures of 5F'S disease transmission. The study also revealed that the age if mothers had an association with the attitude of mothers regarding preventive measures of 5F'S disease transmission.

KEYWORDS: Assess, knowledge, preventive measures, 5F's disease.

INTRODUCTION

A Nation's wealth depends upon its healthy citizens of all age group children. The health of children is of vital importance to all societies, because children are the source for the future of mankind. Children are more prone to infection and diseases. The fecal-oral transmission is the pathway for communicating diseases and infection in the under-five children. The most common five F's (Food, Finger, Fluid, Flies, Feces). Fecal-oral transmission happens once bacterium or viruses found within the stool of one person is engulfed by another person. Children are the foundation of a strong and healthy nation. Children constitute more than 1.2 billion worldwide, and about 21% of Indian population. Morbidity and mortality occurring in this age group is mostly due to preventable causes. Young and growing children have poor knowledge and lack of awareness about communicable disease transmission and the ill health affecting them. The major barriers for this

are lack of accurate information, absence of proper guidance, parents' ignorance, lack of skills and insufficient services from health care delivery system in developing countries. Children are affected by diseases that are preventable and treatable with simple interventions.^[1]

A disease is caused due to a specific organism or by its toxic products. It is transmitted from man, animal, or from environmental agents like food wastes, air, soil and dust, fluid, flies, faeces and fomite which is called "communicable disease". These infectious agents may transmit through 5F'S i.e, Food, Fingers, Fluids, Flies and faeces. As a result of the growing prevalence of communicable diseases and the related cost burden, health promotion and illness prevention is increasingly important. As the name suggests, feco-oral diseases are diseases that occur when the causative organisms which are excreted in the stools of infected persons (or less

commonly animals) gain entry into the human host via the mouth. Therefore, the organisms have to pass through the environment from the feces of an infected person to the digestive system of a susceptible person. This is known as the feco-oral transmission route. Faeco-oral transmission of organisms causing disease occurs mostly through fecal contamination of food, water and hands which is not at all apparent. Very small amounts of faeces can carry, enough organisms to establish infection. Clean-looking hands may carry and transmit enough micro-organisms to spread diseases.^[2]

Statement of the Problem

“A descriptive study to assess the knowledge and attitude regarding the preventive measures of 5F’s disease transmission among mothers of under five children in Pallihottam coastal community area, Kollam”

Objectives

The objectives of the study were

- To find out the knowledge regarding 5F’s (Food, Finger, Fluid, Flies, Feces) disease transmission.
- To find out the attitude towards Five F’s (Food, Finger, Fluid, Flies, Feces) disease transmission.
- To find out the association between the knowledge regarding the 5F’s disease transmission and socio-demographic variables such as age of the mother, age of the child, education, occupation, type of family.
- To find out the association between attitude regarding the 5F’s disease transmission and socio-demographic variables such as age of the mother,

age of the child, education, occupation, type of family.

Operational Definitions

- **Assess:** In this study, it refers to determine the knowledge and attitude regarding preventive measures of 5F’s disease transmission among mothers of under 5 children in selected community area, Kollam.
- **Knowledge:** In this study, it refers to the information about preventive measures of 5F’s disease transmission among mothers of under five children using a knowledge questionnaire.^[3]
- **Attitude:** in this study attitude refers to the respondents’ thoughts and feelings towards prevention of 5F’s disease transmission among mothers of under five children.
- **Preventive measures:** It includes measures or steps taken for prevention of 5 Disease transmission as opposed to disease treatment. In this study it refers to the usage of proper hygienic practices like food hygiene, proper water supply, adequate drainage facility.⁴
- **5F’s disease transmission:** it is the transmission of disease from infected person through feces, fluids, flies, finger, food to another person.
- **Mother:** In this study a mother refers to a female parent in between the age of 20-40 years who has performed her parenthood responsibility for at least an under 5 child.

Research Methodology

Research approach	: Quantitative research
Research design	: Non-Experimental research design
Variables	Dependent variable: knowledge and attitude of mother’s of under 5 children regarding preventive measures of 5F’s disease transmission. Demographic variables: In this study demographic variables are age of mother, age of child, education, occupation, type of family.
Setting of the study	: The setting of the study was at Pallihottam coastal community area, Kollam.
Population	: In this study sample consisted of 60 mothers of under 5 children in Pallihottam coastal community area, Kollam.
Sample	: In this study sample consisted of 150 mothers of adolescent girls in Pallihottam coastal community area, Kollam.
Sample Size	: 60 mothers of under 5 children in Pallihottam coastal community area, kollam.
Sampling Technique	: Convenience sampling technique

RESULTS AND DISCUSSION

Table 1: Age of mother.

SL NO	AGE	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	20-30	19	30	1
2	31-40	4	5	1

The table of data regarding age of mother shows that mothers who were in the age group of 20 -30 years,19 of

them had adequate knowledge, 30 had moderate and 1 of them have inadequate knowledge regarding preventive

measures of 5F's disease transmission. Mothers who were in the age group of 31-40 years, 4 of them had

adequate knowledge, 5 had moderate and 1 had inadequate knowledge.

Table 2: age of child.

SL NO	Age of child	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	<1yrs	2	3	1
2	1-3 yrs	12	21	0
3	>3yrs	9	11	1

The data regarding age of child shows that 2 had adequate knowledge, 3 had moderate knowledge and 1 had inadequate knowledge in the age group of <1yrs. In the age group of 1-3 yrs, 12 had adequate knowledge, 21

had moderate knowledge. In the age group of >3 yrs, 9 had adequate knowledge, 11 had moderate knowledge and 1 had inadequate knowledge.

Table 3: Education.

SL NO	EDUCATION	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	Primary	0	1	0
2	Secondary	2	7	2
3	HSS	8	19	0
4	Others	13	8	0

The data regarding education shows that the mothers who has primary education, 1 had moderate knowledge. Mothers who had Secondary education, 2 had adequate knowledge, 7 had moderate knowledge and 2 had inadequate knowledge. Mothers who have Higher

Secondary education, 8 had adequate knowledge, 13 had moderate knowledge. Mothers who have higher education, 13 had adequate knowledge and 8 had moderate knowledge.

Table 4: Occupation.

SL NO	OCCUPATION	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	Unemployed	17	24	2
2	Employed	6	11	0

The data regarding the occupation shows that among the mothers who are unemployed 17 had adequate knowledge, 24 had moderate knowledge and 2 had

inadequate knowledge. Among mothers who are employed 6 had adequate knowledge, 11 had moderate knowledge.

Table 5: Type of family.

SL NO	TYPE OF FAMILY	KNOWLEDGE		
		ADEQUATE	MODERATE	INADEQUATE
1	Joint family	6	6	0
2	Nuclear family	17	29	2

The data regarding type of family shows that in joint family, 6 adequate knowledge, 6 had moderate knowledge. In nuclear family, 17 had adequate knowledge, 29 had moderate knowledge and 2 had inadequate knowledge.

Table 2: Association between knowledge and selected socio demographic variables.

Sl. No	Variables	Knowledge			df	Chi square value	Table value	Inf
		Adequate	Moderate	Inadequate				
1	Age of mother							
	20-30 yrs	19	30	1				
	31-40 yrs	4	5	1	4	1.84	9.49	NS
	41-50 yrs	0	0	0				
2	Age of child							
	<1yrs	2	3	1				
	1-3 yrs	12	21	0	4	3.84	9.49	NS
	>3 yrs	9	11	1				
3	Education							
	Primary	0	1	0				
	Secondary	2	7	2	2	7	5.99	S
	HSS	8	19	0				
	Others	13	8	0				
4	Occupation							
	Unemployed	17	24	2				
	Employed	6	11	0	2	2.74	5.99	NS
	Self employed	0	0	0				
5	Type of family							
	Joint family	6	6	0				
	Nuclear family	17	29	2				
	Extended family	0	0	0	2	0.85	5.99	NS

0.05- level of significance

NS- non-significant

S-Significant

From the above statistical data, it was clear that there is significant association of knowledge among mothers of under 5 children regarding preventive measures of 5F's disease transmission with demographic variable of

education. And it is also clear that there was no association between knowledge regarding preventive measures of 5F's disease transmission with age of mother, age of child, occupation and type of family.

Table 6: age of mother.

SL NO	AGE OF MOTHER	Highly positive	Positive	Neutral	Negative
1	20-30	32	15	1	2
2	31-40	2	6	1	0

From the data regarding age of the mother and attitude, 32 mothers had highly positive attitude, 15 had positive attitude, 1 had neutral attitude and 2 had negative attitude

in the age group of 20-30 years. 2 had highly positive attitude, 6 had positive attitude and 1 had neutral attitude in the age group of 31-40 years.

Table 7: age of child.

SL NO	AGE OF CHILD	ATTITUDE			
		Highly positive	Positive	Neutral	Negative
1	<1yrs	4	2	0	0
2	1-3yrs	22	10	1	0
3	>3yrs	9	9	1	2

The data regarding age of the child and attitude, 4 had highly positive attitude, 2 had positive attitude in the age group of <1 yrs. 22 had highly positive attitude, 10 had positive attitude and 1 had neutral attitude in the age

group of 1-3 yrs. 9 had highly positive attitude and 9 had positive attitude, 1 had neutral and 2 had negative attitude in the age group of >3yrs.

Table 8: Education.

SL NO	EDUCATION	ATTITUDE			
		Highly positive	Positive	Neutral	Negative
1	Primary	0	1	0	0
2	Secondary	4	5	1	1
3	HSS	21	6	0	0
4	Others	10	9	1	1

The data regarding education and attitude, mothers who have primary education 1 had positive attitude. Mothers who have Secondary education, 4 had highly positive attitude, 5 had positive attitude, 1 had neutral attitude and 1 had negative attitude. Mothers who have Higher

Secondary education, 21 had highly positive attitude and 6 had positive attitude. Mothers who have higher education, 10 had highly positive attitude, 9 had positive attitude, 1 had neutral attitude and 1 had negative attitude.

Table 9: Occupation.

SL NO	OCCUPATION	ATTITUDE			
		Highly positive	Positive	Neutral	Negative
1	Unemployed	23	18	1	1
2	Employed	12	3	1	1

The data regarding occupation and attitude, mothers who are unemployed, 23 had highly positive attitude, 18 had positive attitude, 1 had neutral attitude and 1 had

negative attitude. Mothers who are employed, 12 had highly positive attitude, 3 had positive attitude, 1 had neutral attitude and 1 had negative attitude.

Table 10: Type of family

SL NO	TYPE OF FAMILY	ATTITUDE			
		Highly positive	Positive	Neutral	Negative
1	Joint	9	2	1	1
2	Nuclear	26	19	1	2

The data regarding type of family and attitude, in joint family 9 had highly positive attitude, 2 had positive attitude, 1 had neutral attitude and 1 had negative

attitude. In nuclear family, 26 had highly positive attitude, 19 had positive attitude, 1 had neutral attitude and 2 had negative attitude.

Table 2: Association between attitude and selected socio demographic variables.

Sl. No	Variables	Attitude					df	Chi square value	Table value	Inf
		Highly positive	Positive	Neutral	Negative	Highly negative				
1	Age of mother									
	20-30 yrs	32	15	1	2	0				
	31-40 yrs	3	6	1	0	0	2	6.32	5.99	S
	41-50yrs	0	0	0	0	0				
2	Age of child									
	<1 yrs	4	2	0	0	0				
	1-3 yrs	22	10	1	0	0	4	2.01	9.49	NS
	>3 yrs	9	9	1	2	0				
3	Education									
	Primary	0	1	0	0	0				
	secondary	4	5	1	1	0	6	7.53	12.59	NS
	HSS	21	6	0	0	0				
	Others	10	9	1	1	0				
4	Occupation									
	Unemployed	23	18	1	1	0				
	Employed	12	3	1	1	0	3	3.5	7.81	NS
	Self employed	0	0	0	0	0				
5	Type of family									
	Joint family	9	2	1	0	0				
	Nuclear family	26	19	1	2	0				
	Extended family	0	0	0	0	0	3	3.49	7.81	NS

Table 4: The association was computed by using chi square test. It was inferred that the present study showed no significant association between attitude and socio-demographic variables like age of child, education, occupation and type of family. Regarding age of the mother, the calculated value 6.32 is greater than table value 5.99 at 0.05 level of significance. Regarding age of the child the calculated value 2.01 is less than table value 9.49 at 0.05 level of significance. Regarding education, the calculated value 7.53 is less than table value 12.59 at 0.05 level of significance. Regarding occupation, the calculated value 3.5 is less than table value 7.81 at 0.05 level of significance. Regarding type of family, calculated value 3.49 is less than table value 7.81 at 0.05 level of significance. In short, no significant association was found between attitude towards preventive measures of 5F's disease transmission among mothers of under 5 children and socio-demographic variables such as age of child, education, occupation, and type of family.

DISCUSSION

The present study was conducted to assess the knowledge and attitude among mother's of adolescent girls regarding sex education at pallihottam coastal community area, Kollam. In order to achieve the objectives of the study non experimental research design was adopted. The Sample was selected by the non-probability convenient sampling. The sample consisted of 150 mothers adolescent girls. The findings of the study have been discussed in relation to objectives and other similar studies.

OBJECTIVES

The objectives of the study were

- To assess the knowledge among mothers of adolescent girls regarding sex education.
- To assess the attitude among the mothers of adolescent girls regarding sex education.
- To find the association between knowledge among mothers of adolescent girls regarding sex education with selected socio - demographic variables.
- To find the association between attitude among mothers of adolescent girls regarding sex education with selected socio -demographic variables.
- To develop an instructional module for mothers regarding sex education of their adolescent girls.

Discussion of findings with other studies based on objectives

- **To assess the knowledge regarding preventive measures of 5F's disease transmission among mothers of under five children**

The present study revealed that 38.3% mothers had adequate knowledge, 58.3% had moderate knowledge and 3.4% had inadequate knowledge.

The above findings were supported by a cross sectional study was designed to assess the effectiveness of Video assisted Teaching programme on knowledge regarding 5 F's of disease transmission among children of selected

schools, Tirupati. Here Pre experimental one group pre-test post-test design was used. Convenient sampling method was applied to choose 60 school children of 11-16 yrs age from Government high schools of Tirupati. Self-administered questionnaire was used to collect the data of pre and posttest. Video assisted teaching programme was implemented for 40 minutes before taking post test. The result shoes that in pre-test, nearly more than half of the sample 35 (58.30%) were having Inadequate knowledge. Whereas in post-test, none of them were having Inadequate knowledge and Majority of the sample 48 (80%) were having adequate knowledge and only 12 (20%) of the sample were having moderate knowledge. In this study it was identified that there was significant association between the knowledge scores and socio demographic variables at $p < 0.01$ level and $p < 0.05$ levels. The present study revealed that Video assisted teaching programme had improved knowledge of school children regarding F's of disease transmission.

To assess the attitude towards preventive measures of 5 f's disease transmission among under five children.

The study revealed that 58.3% mothers of under five children had highly positive attitude, 35% had positive attitude, 3.4% had neutral attitude and 3.4% had negative attitude.

The above findings were supported by a cross sectional study was conducted to determine the knowledge, attitude, and practice of mothers of under-five children regarding the prevention of 5F's disease transmission. in a Medical College Hospital, Mangalore. A pretested questionnaire was given to 100 mothers of under-five children when they attended hospital for treatment of their children either as outpatient or inpatient. Results were tabulated and analysed statistically using frequency, percentage, and Chi-square test. the result shows that Majority (40%) of them were in the age group of 21-25 years. All of them were literate with 47% mothers completed high-school education. Majority (40%) of mothers belonged to Class III socioeconomic status. Most of the mothers (84%) had good knowledge regarding signs and symptoms, spread, and prevention. Majority of mothers (77%) had serious attitude toward 5F's disease transmission. A strong association is found between age group, educational status, and socioeconomic status and knowledge, attitude, and practices regarding prevention of 5F's disease transmission ($P \leq 0.0001$).

To find the association between knowledge regarding preventive measures of 5F's disease transmission among mothers of under five children and selected socio-demographic variables.

The present study showed significant association between knowledge and socio-demographic variable, education. Regarding education, the calculated value 7 is greater than table value 5.99 at 0.05 level of significance. There was no significant association between knowledge and socio-demographic variables such as age of the

mother, age of the child, occupation and type of family. Regarding age of the mother the calculated value 1.84 is less than table value 9.49 at 0.05 level of significance. Regarding the age of child, the calculated value 3.84 is less than the table value 9.49. Regarding occupation the calculated value 2.74 is less than table value 5.99 at 0.05 level of significance. Regarding type of family the calculated value 0.85 is less than table value 5.99 at 0.05 level of significance. In short significant association was found between knowledge and demographic variables like education. No significant association was found between knowledge and demographic variables such as age of the mother, age of the child, occupation and type of family.

The above finding was supported by a study was to assess the knowledge & practice regarding 5 F's disease. for this study was descriptive survey and research design was correlation in nature. The sample consisted of 300 mothers of under five children. Purposive sampling technique was used for the selection of samples. The instrument for the data collection was a structured interview schedule & self - expressed rating scale. Data were analysed and interpreted using descriptive & inferential statistics. The result showed that out of 300 respondents 82(27%) of mothers are in age group of 18–24 years who were having under five children, 244(81%) belong to Hindu religion, 62(21%) middle education, 98(33%) were not working, 171(57%) belong to nuclear family & 90(30%) having family income per month Rs 10,001 - 15,000/-. Regarding the assessment of knowledge & practice score, mean knowledge score was 10.97 & mean practice score was 31.27. the score showed that 160 (53.33%) were having poor knowledge but practice score indicated was 282 (94%) were having good practice. Findings related to association of knowledge with selected demographic variables that had significant association with education at 0.05 level of significance. Findings related to association of practice with selected demographic variables showed that it had significant association with type of family & family income at 0.05 level of significance.

To find the association between attitude towards preventive measures of 5F's disease transmission among mothers of under five children with selected socio-demographic variables.

The present study showed significant association between attitude and socio-demographic variables like age of mother. Regarding age of mother, the calculated value 6.32 is greater than table value 5.99 at 0.05 level of significance. There was no significant association between attitude and socio demographic variables such as age of child, education, occupation and type of family. Regarding age of child, the calculated value 2.01 is less than table value 9.49 at 0.05 level of significance. Regarding education, the calculated value 7.53 is less than table value 12.59 at 0.05 level of significance. Regarding occupation, the calculated value 3.5 is less than table value 7.81 at 0.05 level of significance.

Regarding type of family, calculated value 3.49 is less than table value 7.81 at 0.05 level of significance. In the study showed that 58.3% mothers of adolescent girls had highly positive attitude, 35% had positive attitude, 3.4% had neutral attitude and 3.4% had negative attitude.

The above finding was supported by a cross-sectional study was conducted to assess the 5F's disease transmission and associated factors among mothers of under five children in Debarq town Northwest Ethiopia. 423 mothers of under five children were involved in this study. A questionnaire prepared in English after adapted from previous studies then translated in to local language Amharic was used in order to collect the data. Data were checked manually for completeness, coded, and entered in to Epi Info version 7.1 and then exported in to SPSS version 26 statistical package for analyse. Descriptive statistics, percentage, frequency, standard deviation, and mean were analysed. Likewise, bivariable and multivariable binary logistic regression analysis were done to know the relationship between the independent variables and attitude of 5F's disease among mothers. The result shows that About The mean age of the participants was 39.844 ± 11.02 . In this study, educational status (primary education (Adjusted Odds Ratio [AOR]: 2.66; 95% Confidence Interval [CI] [1.42-4.97]), secondary education (AOR: 2.66; 95% CI [3.35-14.05]), and diploma and above (AOR: 4.07; 95% CI [1.65-10.06])), higher income (AOR: 3.58; 95% CI [1.54-8.29. study concluded that educational status, income, food safety knowledge, and food safety practice were significantly associated with prevention of 5F's disease transmission attitude among mothers. Food hygiene practice, knowledge, and level of education should be increased in order to improve attitudes among mothers who were responsible in preventing disease at household level.

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