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A Descriptive Study To Assess The Knowledge And Practices Among Mothers Of Children Regarding Worm Infestation In Selected Rural Area Of District Faridkot, Punjab

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ABSTRACT

Materials And Methods: A descriptive study to assess the knowledge and practices among mothers of children regarding worm infestation in selected rural area of district Faridkot, Punjab. A quantitative research approach and descriptive research design was used for the study. The sample size was 60 mothers in selected rural area of district Faridkot, Punjab. The sampling technique was a non-probability purposive sampling technique. The data was collected by Self-Structured knowledge questionnaire method and practice checklist method was used to collect data.

Discussion was based on objectives of the study, statistical analysis, current trends, and previous related research. The data was collected, organized, tabulated, and analysed by descriptive and inferential statistics.

Results: The study revealed that the majority of mothers that was 53(88.3%) had adequate knowledge, and 7(11.7%) of mothers had inadequate knowledge. A maximum of 49(81.7%) of the mothers had satisfied practices and 11(18.3%) of mothers had unsatisfied practices. There was a perfect positive correlation between knowledge and practices score that is r=1.

Conclusion: Hence, it can be concluded that majority of mothers had adequate knowledge and satisfactory practices regarding worm infestation.

Keywords: *Knowledge, Practices, Worm Infestation, mothers of children and Rural area.*

1. INTRODUCTION

Children constitute a large section of the population in India. It has been a great challenge to the nation to provide health, education and food to the children below 12 years. School aged children's comprising of 38% of the country, who are dependent, unproductive but has great potential. The formative years of childhood has greater risk for morbidity and mortality. In most cases, the manifold childhood problems are interrelated and affect the growth and development of children, the most common being infections are parasitic infestations and malnutrition. The magnitude of parasitic infestations among children constitutes a major public health problem in many parts of the world. In rural areas, the infestation is particularly more due to poor sanitation condition and improper personal hygiene practices. Worm infestations have a close relationship with socio-demographic and ecological factors like poverty, illiteracy, and poor personal and environmental hygiene.[1]

Helminthic infestation refers to worms that live as parasites in the human body. A parasite is an animal or plant that lives on or within another living organism, the host, at whose expense it obtains some advantage such as nourishment or physical protection. An ectoparasite lives on the outside of the body of the host, attaching to the skin or invading the superficial tissues. Examples of ectoparasites include lice, mites, ticks, or other insects, each of which can cause an infestation. An endoparasite lives within the lumen of the intestine and is said to cause the disease states of amebiasis and giardiasis; and the helminths, including the nematodes, responsible for causing ascariasis, enterobiasis, ancylostomiasis, strongyloidiasis, and

trichoriasis; and the tissue nematodes, responsible for causing visceral larva migrans and trichinosis. These infections are discussed concerning the toddler period because children of this age- group are more likely than others to eat inedible substances such as soil (pica), which may be contaminated with the parasites, and to remove their shoes, exposing their feet to infective agents in the soil. Parasitic infections are the most frequent infections worldwide. Endoparasites are endemic in many geographic areas of the world. Although they are more common in the tropics or hot climates, with rapid air travel, so-called parasitic infections are becoming more important in temperate climates, including the United States.[2]

Worm infestation occurs when infective eggs, or larvae, enter the body, mature, lay eggs, and feed off the person. People get infected with worms when living in an unclean environment of poor sanitation and unhygienic habits, consuming contaminated water, and soil, contact with contaminated feces, and poor sanitation.[3]

Eating mud (pica) is a common mode of infection. Infection can also occur by taking raw vegetables without proper washing or peeling. Larvae of some worms like hookworms enter the body by piercing through the skin in children who walk bare feet. Eating infected pork and beef (without proper cooking) may lead to infection by tapeworms. Drinking contaminated water and taking infected food leads to acute amoebae dysentery and giardiasis.[4]

Pre-school and school-age children and women of childbearing age, including adolescent girls, tend to have a higher proportion of worm infections. Although intestinal worms can infect all members of a population, these specific groups are at greater risk of heavy infections than others and are more vulnerable to the harmful effects of chronic infections. These vulnerable groups would benefit most from preventive interventions. Rumona Dickson (2013) Worm infestation remains one of the main problems of child development. This is especially a greater health hazard in developing countries. Of 246 children, aged 7-12 years, attending school in rural Guatemala, 91% carried Safaris lumbricoides and 82% carried Trichuris trichura1. In Madagascar, a study revealed the prevalence of 93% for Ascaris lumbricoides, 55% for Trichuris trichiura and 27% for Hookworm. The same authors in an earlier study have reported a prevalence of 78% for Ascaris lumbricoides, 38% for Trichuris, 16% for hookworm, and 0.4% for Schist soma mansoni in children in the Ranomafana rainforest, Madagascar. Impure water, low socio-economic state, poor sanitation coupled with low literacy rates of parents particularly the mothers are the main causes of this prevalent malady. Worm infestation is one of the major causes of childhood malnutrition, anemia, stunted physical and mental growth, psycho-social problems, and along with repeated gastrointestinal problems in children Worm infection are one of the major health problems confronting millions of school-age children. These parasites consume nutrients from the children they infect, thus aggravating malnutrition and retarding physical development. They also destroy the tissues and organs in which they live. They cause abdominal pain, diarrhea, intestinal obstruction, anemia, ulcers, and various other health problems. These ailments can impair learning and slow cognitive development, ultimately resulting in poor school performance of a child. It is not uncommon for heavy or long-term infection to result in death, if treatment is not given in time. It is especially important to note that the stunting of children's growth due to worm infections is not easily recognized because it occurs almost imperceptibly over time. Thus, the full impact of intestinal infections is often greatly under-reported or overlooked. Intestinal worm infections destroy the well-being and learning potential of millions of children in many developing countries.[5]

Children are at risk due to their activities like play and lack of importance to personal hygiene. From the children, the entire family may eventually get worms and suffer. Worm infestations are generally not noticed but can sometimes lead to significant problems, which affect organ system.[6]

Worm infestation produces serious diseases in children. Intestinal parasites compete for food, damage the intestine, and decrease food absorption, usually, the intestinal parasites are not noticed until the worms are passed in stool. Sometimes occasional abdominal pain, vomiting, and diarrhea may occur. In heavy infection, intestinal obstruction can occur from a tangled ball of roundworms becoming stuck at the ileocecal junction where the lumen of the intestine is narrowest. Very heavy infections with hundreds of worms pose a nutritional threat. Ascariasis and malnutrition both can cause abdominal distension. To prevent worm infestation mother should Thoroughly wash vegetables such as carrots, radishes, onions, and salad leaves or any food eaten raw. This is necessary because the soil adhering to these foods may be contaminated with the ova or cysts of the parasites. Drinking water should be filtered and boiled. Care should be taken so that prepared food and drinking water do not get contaminated through unhygienic handling by a person carrying ova in the fingernails. Washing of the hands after passing stool and before eating food is mandatory. Nails should be kept short and clean, as the nails are places where ova of the worms usually reside. Personal hygiene should be maintained. Restrict diet to only homemade foods. In case of threadworm infection where anal itching is present, it is advisable to apply a suitable cream. The underclothes should be changed daily and bed linen must be kept clean. Children should not be allowed to play barefoot in the fields where the soil may be contaminated with ova of hookworm. The ova of hookworms enter through the foot reach the bloodstream and grow into adult worms. Regular deworming helps in preventing infestation. Avoid too many sweets and puddings, very fried, greasy, and fast foods. More green vegetables and fresh fruits should be eaten.[7]

OBJECTIVES:

1. To assess the level of knowledge regarding worm infestation among mothers of children.

2. To assess the level of practices regarding worm infestation among mothers of children.
3. To find out the co-relation between knowledge and practices regarding worm infestation among mothers of children.
4. To find out the significant association between knowledge among mothers of children with their selected demographic variables i.e. Age of mother, Age of children, educational status of mother, Occupation of mother, Monthly family income, Number of children, Dietary pattern, Latrine facility, Source of knowledge, Stool examination history.
5. To find out the significant association between practices among mothers of children with their selected demographic variables i.e. Age of mother, Age of children, educational status of mother, Occupation of mother, Monthly family income, Number of children, Dietary pattern, Latrine facility, Source of knowledge, Stool examination history.

2. METHODOLOGY

RESEARCH DESIGN: A descriptive research design was used.

RESEARCH APPROACH: A quantitative research approach was used.

RESEARCH SETTING: Selected rural area

TARGET POPULATION: Mothers of children

SAMPLE SIZE: 60 MOTHERS

SAMPLING TECHNIQE: Non-probability purposive sampling technique was used.

SELECTION AND DEVELOPMENT OF TOOL: Self-structured knowledge questionnaire for assessing knowledge and Self-structured practice checklist for assessing practices.

CRITERION MEASURES:

Criterion measures to analyze the tool were the following:

Knowledge criteria: Knowledge score was categorized into 2 levels:

Level	**Score**	**Percentage (%)**
Adequate	13-20	65%-100%
Inadequate	0-12	0-60%

Maximum score – 20

Minimum score – 0

Practice criteria

Practice score was categorized into 2 levels.

Level	**Score**	**Percentage (%)**
Satisfactory	11-15	73%-100%
Unsatisfactory	0-10	0-66.6%

Maximum score – 15

Minimum score - 0

3. RESULTS

SECTION-2

Objective 1: To assess the knowledge among mothers of children regarding worm infestation in selected rural area of district Faridkot.

TABLE-2 Frequency and percentage distribution of knowledge among mothers of children regarding worm infestation.

N=60

Level of knowledge	Score	N	Percentage (%)
Adequate	**13-20**	**53**	**88.3%**
Inadequate	**0-12**	**07**	**11.7%**

Maximum score - 20

Minimum score - 0

Table 2 depicts that 53 (88.3%) mothers had adequate knowledge but only 7(11.7%) mothers had inadequate knowledge regarding worm infestation. Hence, it was concluded that the majority of mothers had an adequate knowledge regarding worm infestation

SECTION-3

Objective 2: To assess the practices among mothers of children regarding worm infestation in selected rural area of district Faridkot.

TABLE-3 Frequency and percentage distribution of practices among mothers of children regarding worm infestation.

N=60

Practices	Score	N	Percentage (%)
Satisfactory	**9-15**	**49**	**81.7%**
Unsatisfactory	**0-8**	**11**	**18.3%**

Table 3: depicts that 49(81.7%) mothers had satisfactory practices and 11(18.3%) mothers had unsatisfactory practices regarding worm infestation.

Hence, it was concluded that the majority of mothers had satisfactory practices regarding worm infestation.

SECTION-4

Objective-3:-To find out the relationship between knowledge and practices among mothers of children regarding worm infestation in selected rural area of district Faridkot.

Table-4 To find out the relationship between knowledge and practices among mothers of children regarding worm infestation.

Relationship	**Mean**	**SD**	R
Knowledge	**15.5**	**2.50**	**1.0**
Practices	**11.3**	**3.13**	

Table 4 revealed that the mean ± standard deviation for knowledge and practices were 15.5±2.50 and 11.3±3.13 respectively. The relationship between knowledge and practices was found out to be 1.0.

Hence, it was concluded that there was perfect positive relationship between knowledge and practices among mothers.

SECTION-5

Objective-5:-To find out the significant association between knowledge and demographic variables among mothers of children regarding worm infestation in selected rural area of district Faridkot.

Table-5 To find out the association between knowledge regarding worm infestation with their selected demographic variables among mothers.

N=60

Demographic variables	**Adequate**	**Inadequate**	**Df**	**Chi-square**
1. Age of mother (in years)				
a. Less than 25				
b. 26-30 years	24	02		
c. 31-35 years	14	02		
d. More than 35 years	08	03	03	3.018^{NS}
	12	00		
2. Age of children				
a. 1-2 years				
b. 3-4years				
c. 5-6years	12	02		
d. Above 6 years	18	01		
	10	03	03	2.77^{NS}
3. Educational status of mother	13	01		
a. Illiterate				
b. Primary				
c. Middle	03	00		
d. High school	17	03		
	17	02	03	0.641^{NS}
4. Occupation of mother	16	02		
a. Housewife				
b. Working women				
c. Labourer				
d. Self-employed	38	05		
	06	01		

5. **Monthly family income**	03	00	03	0.489^{NS}
a. Below 5000	06	01		
b. Rs.5001 to 10,000				
c. Rs.10,001 to 15,000				
d. Above 15,000	12	00		
	11	05	03	8.531^{S}
6. Number of children in family	19	01		
a. One	11	01		
b. Two				
c. Three				
d. More than Three				
7. Dietary pattern				
a. Vegetarian	17	03		
b. Nonvegetarian	25	03		
c. Eggetarian	09	01	03	0.531^{NS}
	02	00		
8. Latrine facility				
a. Indoor facility				
b. Open field defecation				
	28	05		
9. Source of knowledge about worm infestation	19	01	02	1.298^{NS}
a. Mass media	06	01		
b. Friends and relatives				
c. Health personnels (Doctor and Nurses)	45	06		
d. ASHA workers	07	01	02	0.138^{NS}
10. Does your child having any stool examination history?				
a. Yes	06	02		
b. No	16	04	03	5.296^{NS}
	15	01		
	16	00		
	13	05	02	6.499^{s}
	39	02		

Maximum score=20 S = Significant at 0.05

Minimum score=0 NS=Non-significant at 0.05

Table 5 depicts that socio-demographic variables such as age of mother, age of children, educational status of mothers, occupation of mothers, number of children in family, dietary pattern, latrine facility, source of knowledge, and history of stool examination were non-significant at 0.05 but monthly family income and history of stool examination was significant at 0.05.

SECTION-6

Objective-5:-To find out the significant association between practices and demographic variables regarding worm infestation among mothers of children in selected rural area of district Faridkot.

Table-6 To find out the association between practices regarding worm infestation with their selected demographic variables among mothers.

N=60

Demographic variables	Satisfactory	Unsatisfactory	Df	Chi-square
1. Age of mother (in years)				
a. Less than 25	04	5		
b. 26-30 years	23	3	3	10.931[s]
c. 31-35 years	14	3		
d. More than 35 years	08	0		
2. Age of children				
a. 1-2 years	09	5		
b. 3-4 years	16	3		
c. 5-6 years	12	1	3	4.043[NS]
d. Above 6 years	12	2		
3. Educational status of mother				
a. Illiterate	02	1		
b. Primary	15	5		
c. Middle	18	1	3	3.394[NS]
d. High school	14	4		
4. Occupation of mother				
a. Housewife	35	8		
b. Working women	06	1		
c. Labourer	03	0	3	1.242[NS]
d. Self-employed	05	2		
5. Monthly family income				
a. Below 5000	11	1		
b. Rs.5001 to 10,000	09	7	3	12.551[s]
c. Rs.10,001 to 15,000	20	0		
d. Above 15,000	09	3		
6. Number of children in family				
a. One	15	5		
b. Two	23	5	3	1.511[NS]
c. Three	09	1		
d. More than Three	02	0		
7. Dietary pattern				
a. Vegetarian				

b. Nonvegetarian	28	5		
c. Eggetarian	16	4	2	0.75^{NS}
	05	2		
8. Latrine facility				
a. Indoor facility				
b. Open field defecation	42	9		
	06	2	2	0.478^{NS}
9. Source of knowledge about worm infestation				
a. Mass media				
b. Friends and relatives	07	1		
c. Health personnels (Doctor and Nurses)	14	6		
d. ASHA workers	13	3	3	3.562^{NS}
10. Does your child having any stool examination history?	15	1		
a. Yes				
b. No				
	35	5	2	1.672^{NS}
	13	6		

Maximum score=15 S = Significant at 0.05

Minimum score=0 NS = Non-significant at 0.05

Table 6 depicts that socio-demographic variables such as the age of children, educational status of mothers, occupation of mothers, number of children in the family, dietary pattern, latrine facility, source of knowledge, and history of stool examination were non-significant but the age of mothers and monthly family income was significant at 0.05.

4. DISCUSSION

The chapter relates the findings of the present study to the studies done earlier. The findings of the present study have been discussed following the objectives of the study.

1. The first objective of the study was to assess knowledge among mothers of children regarding worm infestation in selected rural area of district Faridkot.

The findings of the study revealed that the maximum percentage that was 88.3% of mothers had adequate knowledge and 11.7% of mothers had inadequate knowledge regarding worm infestation. The finding is supported by a study conducted by **S. Prathaban** (2010)[1]showed that 19% of mothers had adequate knowledge, 42% of mothers had moderately adequate knowledge and 39% of mothers had inadequate knowledge regarding worm infestation.

2. The second objective is to assess the level of practices regarding worm infestation among mothers of children.

The findings revealed that the majority of mothers had 49(81.7%) satisfactory levels of practices and the remaining 11(18.3%) had unsatisfactory levels of practices regarding worm infestation. The findings supported by **Ms Patel Disha et. Al (2017)[8]**. to assess the level of knowledge and practice of mothers of children regarding the prevention and management of worm infestation in selected villages of Waghodia, Taluka. In practice checklist among 40 participants, 85% having good practice and 15% were having average practice regarding the prevention and management of worm infestation.

3. The third objective To find out the correlation between knowledge and practices regarding worm infestation among

mothers of children.

The findings revealed that the mean and standard deviation for knowledge 15.5+2.50 respectively and for practices mean score and standard deviation 11.3+3.13 respectively(r-1.0).The finding is supported **by Swarjyam Y.**(2011)[9] conducted a study to assess the knowledge and practices of mothers regarding worm infestation among school age children in order to develop health education pamphlet in a selected rural community, Bangalore. Majority of the mothers had moderately adequate knowledge (65%) and moderate practices (72%) regarding worm infestations. There was a positive correlation (r = 0.482) between level of knowledge and practices of mothers regarding worm infestations.

4. The fourth objective to find out the significant association between knowledge among mothers of children with selected demographic variables.

The finding of the study showed that Socio-demographic variables such as age of mother, age of children, educational status of mothers, occupation of mothers, number of children in family, dietary pattern, latrine facility and source of knowledge were non-significant but monthly family income and history of stool examination was significant at 0.05. The finding is supported **by Swarjyam Y.**(2011)[9] conducted a study to assess the knowledge and practices of mothers regarding worm infestation among school age children in order to develop health education pamphlet in a selected rural community, Bangalore. There was statistically significant association found between level of knowledge and demographic variables such as age , education and monthly income of the family.

5. The fifth objective is to find out significant association between the practices among mothers of children with selected Demographic variables.

The findings of study showed that socio-demographic variables such as Age of children, educational status of mother, occupation of mother, number of children in family, dietary pattern, latrine facility, source of knowledge, and history of stool examination were non-significant but age of mother and monthly income were significant at 0.05. The findings supported by S.**Prathaban** (2010)[1] Assessment of the practices of the mothers of children regarding worm infestation. The analysis revealed that there is a significant association between practices and selected Demographic variables. Demographic variables such as the educational qualifications of the mothers, and sources of information were significantly associated with the practices of the mother.

5. CONCLUSION

In the present study, mothers of children, knowledge regarding worm infestation were assessed. From the finding of the study following were drawn that the knowledge of mother of children of rural area regarding worm infestation was adequate. The non-significant relationship was found between knowledge and selected demographic variables i.e., Age of mothers, age of children, educational status of mother, Occupation of mother, number of children, dietary pattern, latrine facility, source of knowledge. The significant relationship was found between knowledge score and selected variables i.e., monthly family income and history of stool examination.

In the present study, mothers of children, practices regarding worm infestation were assessed. From the finding of the study following were drawn that the practices of mother of children of rural area regarding worm infestation was satisfactory. The non-significant relationship was found between practices and selected demographic variables i.e., Age of children, Educational status of mother, Occupation of mother, Number of children, Dietary pattern, Latrine facility, Source of knowledge and Stool examination history. The significant relationship was found between practices and selected demographic variables i.e., age of mother and monthly income.

RECOMMENDATIONS

On the basis of the findings of the study is recommended that

1. A study can be undertaken with a large sample for better generalization.
2. A similar study can be undertaken by adopting an experimental design.
3. A similar study can be done to assess the knowledge of school teachers.
4. A comparative study can be done between rural and urban mothers.
5. A similar study can be done among school children.
6. A similar study can be done among tribal children.

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