

## Original Research Article

## Assess the knowledge regarding Worm Infestation among Mothers of Pre-school Children

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### Abstract

Worm infestation is the leading cause of anemia and under nutrition. Children with these infections suffer from developmental disturbances and other serious illness. This study was conducted to assess the knowledge regarding worm infestation among mothers of pre-school children. There is high prevalence of worm infestation in children. So there is an urgent need to educate the mothers regarding worm infestation. The main purpose of the study is to assess the knowledge regarding worm infestation among mothers of Pre-School children. A quantitative research approach was used to evaluate the knowledge regarding worm infestation among mothers of pre-school children the research design adopted for the present study was simple Descriptive. Samples were mothers of pre-school children in selected areas of Moradabad, sample size was 100 and sampling technique was purposive sampling. The association between demographic variables and knowledge level was determined by chi square test. The result shows that, 48 (48%) mothers of pre-school children had moderately adequate knowledge, 42 (42%) had inadequate knowledge and 10 (10%) had adequate knowledge regarding worm infestation. The maximum mean knowledge score obtained by the subject was 14.50, and the Standard Deviation was 2.5269. The maximum level of knowledge was found moderately adequate. It was found in our study that there was no significant association between knowledge level and demographic variables.

**Keywords:** Helminthic infection, Anaemia, Mothers, Worm Infestation, Pre-school Children

### Introduction

#### “Children Health – Tomorrow’s Wealth”

Parasitic infections are widely distributed throughout tropical and sub tropical areas with prevalence in some communities as high as 90% [1]. The disease flourishes in the rural areas with shaded soil, moist and inadequate toilets. Disposal of human stool and the common habit of walking without sleepers are important epidemiological features [2].

In India, more than 200 million children are infected with roundworm, hookworm and whip worm; 60-80% of population of West Bengal, Andhra Pradesh, Uttar Pradesh, and Orissa are infected with worms [3]. In low and middle income countries about 1.2 billion people are infected with roundworm and more than 700 million are infected with hookworm or whipworm [4]. In South India hookworm is more prevalent among children. In India intestinal parasitism is the priority health problem because of unhygienic practices, poor awareness, illiteracy, myths, poverty and variety of allied factors [5].

The quality of one’s life is greatly influenced by the home environment which in turn influenced by the women [6]. As a mother she got a significant role in

primary care execution to children. She plays a pivotal role in child rearing, home management besides assessment of growth and development [7]. She is the first person who identifies the deviation from normal health. In different facets of children’s life i.e. developmental physical, intellectual and psychological, the most crucial and important influence is exerted by the mother [8]. Mother creates a healthy environment at home to enable the children to grow in a secure and safe atmosphere. She has to ensure that the foundations needed for the health and growth of the children in early stage are not eroded. She has to regulate the behaviour, attitude, outlook and living environment in a family since these are the basic factors which influences the growth of the children [9]. In India, 80 percent of children populations are affected by worm infestations that live in rural areas because of poor sanitary conditions, poverty, ignorance, illiteracy and level of health education [10].

Preventive measures for safety of available drinking water and spreading awareness related to sanitation related behaviour should be adopted to minimize the prevalence of worm infestation [11]. Simple community based measures such as increasing public awareness about the drawbacks of open-air

defecation, safe disposal of waste water and safe handling of drinking water can be used for easy and short-term results [12]. Also, sanitation education campaigns are necessary to increase awareness of populations at risk to the relationship between deploying safe sanitation practices, sanitary conditions in general and helminthiasis [13].

Worm infestation remains one of the main challenges of child development. This is especially a greater health hazard in developing countries. Health education is the main tool for changing or modifying the health practices in improved from in the community [14]. The major problem of the rural community is lack of environmental sanitation and poor hygiene mainly due to lack of knowledge among mothers [15]. The mother does not possess basic knowledge of worm infestation, though it is a preventable by simple measures. Hence the investigator felt that there is a strong need to educate mothers with minimum cost, within a short time with maximum effectiveness regarding worm infestation and its prevention [16].

### Objective of study

1. To assess the knowledge regarding worm infestation of mothers of Pre-School children.
2. To determine the association between the knowledge regarding worm infestation among mothers of Pre-School children

### Hypothesis

**H1:** There will be significant association between knowledge regarding worm infestation among mothers of Pre-School children with their selected demographic variables.

**Assumption:** It was assumed that mothers of pre-school children may have less knowledge regarding worm infestation among

### Methodology

**Research Approach:** A Quantitative research approach

**Research Design:** A Descriptive design was adopted for this study.

**Target Population:** Target population for the study includes mothers of Pre-School children in Moradabad

**Sample Size:** The sample size for the present study is 100 mothers of Pre-School children.

**Sampling Technique:** The sampling technique used for selecting the samples was Purposive sampling technique.

**Setting of the Study:** The setting of the study is Lodhipur and Bagarapur Moradabad.

### Inclusion criteria

- Mothers of pre-school children who present during the study
- Mothers of pre-school children who were able to read and understand Hindi.

### Exclusion criteria

- Mother of pre-school children who were not agreeable to take part in the study.
- Mother who are health personnel.

### Variables

- **Research Variable** Includes Knowledge of mothers of Pre-School children.
- **Demographical variable** includes Age, Religion, Educational status of mothers, Monthly family income, and food habit, Number of children and Source of information.

### Delimitations:

The study was delimited to -

1. The mothers of Pre-School children
2. The mothers belonging to the selected areas of Moradabad.
3. Limited to subjects who were willing to participate.

### Method of data collection

The proposed study was conducted after the acceptance of consolation committee of the college and a written permission was obtained from the concerned authorities. Data was collected from 100 samples that fulfilled inclusion and exclusion criteria. The written consent of the participant was obtained before data collection and assurance was given to study participants regarding the confidentiality of data. The data will be collected by using structured questionnaire (MCQ). The data obtained was planned to be analyzed on the basis of object of the study using expressive and inferential statistics.

### Description of tool

The tool consisted of 2 parts.

**Part 1: Demographic Data:** It contains seven items for obtaining information regarding Age, Religion, Educational status of mothers, Monthly family income, and Food habit, Number of children and Source of information.

**Part 2: Planned Structured Questionnaires Schedule regarding Worm Infestation:** The planned structured questionnaire schedule regarding worm infestation consist of 20 multiple choice question.

Each question has three response with one correct answer, score 1 for each correct response and score 0

was given for wrong answers. The resulting score ranged as follows:

Level of Knowledge	Frequency of scoring
Adequate Knowledge	15-20
Moderately Adequate Knowledge	8-14
Inadequate Knowledge	0-7

### Data collection procedure

The data inspection is the systematic organization and combination of experimentation data and the testing of experiment hypothesis using those data. The data obtained was planned to be analyzed on the basis of object of the study using expressive and inferential statistics.

- Master data sheet was organized.
- Demographic variables are to be analyzed in terms of frequencies and percentages.
- Knowledge on worm infestation to be presented in form of mean, median and standard deviation.

### Plan for data analysis and interpretation

The study findings were organized and presented under following headings

- Section I:** Description of demographic variables
- Section II:** Assess the level of knowledge regarding worm infestation of mothers of Pre-School children
- Section III:** Association between level of knowledge regarding worm infestation among mothers of Pre-School children and their demographic variables.

#### Section I: Description of demographical variables regarding worm infestation among mothers of pre-school children

**Table 1:** Percentage Distribution of Demographic variables (N= 100)

DEMOGRAPHIC VARIABLES	F	%	
<b>Age in years</b>	18-21Years	45	45
	22-25 Years	30	30
	26-29 Years	17	17
	>29 Years	8	8
<b>Food habit</b>	Vegetarian	31	31
	Non vegetarian	69	69
<b>Religion</b>	Hindu	69	69
	Muslim	25	25
	Christian	6	6
	Others	0	0
<b>Educational status</b>	Illiterate	30	30
	10 and below	32	32
	Intermediate	27	27

	Above intermediate	11	11
<b>Monthly income</b>	<5000 Rs	0	0
	5000 -10,000Rs	30	30
	10,000-15,000Rs	57	57
	<15,000Rs	13	13
<b>No. of under five children</b>	1	9	9
	2	39	39
	3	44	44
	More than 3	8	8
<b>Source of information</b>	Newspaper	10	10
	Friends	30	30
	Media	20	20
	Magazine	17	17
	Health professional	23	23
	Nil	0	0

- In this study, more than half of mothers of pre-school children are between the age group of 18-21 years (45%).
- Majority of the respondents belongs to Hindus (69%).
- In educational status, most of the mothers of pre-school children were 10 and below (32%).
- Most of the mothers of pre-school children have a family income above Rs. 10,000-15,000 (57%).
- Most of the mothers of pre-school children were non-vegetarian (69%).
- More than of half of the mothers of pre-school children had three children (44%).
- More than of half of mothers of pre-school children had information regarding worm infestation through friends (30%).

#### Section II: Assess the level of knowledge regarding worm infestation of mothers of Pre-School children

**Table 2:** Level of knowledge regarding worm infestation (N= 100)

Knowledge Level	Frequency	Percentage
<b>Inadequate</b>	42	42
<b>Moderately Adequate</b>	48	48
<b>Adequate</b>	10	10

Analysis revealed that around 48% of mothers of Pre-School children had moderately adequate knowledge, 42% had inadequate knowledge and 10% had adequate knowledge regarding worm infestation. It shows that the maximum level of knowledge regarding worm infestation among mothers of Pre-School children was moderately adequate

**Table 3:** Mean and Standard Deviation of level of knowledge

Statistics	Knowledge Level
Mean	14.5
Standard Deviation	2.52

From the above table shows that the mean was 14.50 and the standard deviation was 2.52 for the knowledge level of mothers of Pre-School children regarding worm infestation

**Section III: Association between levels of knowledge regards worm infestation among mothers of Pre-School children and their demographic variables**

Analysis revealed that the p value is greater than 0.05 for all the demographic variables. So it was concluded that there was no association between demographic variables and level of knowledge

**Implication**

The findings of the study have implication for nursing in nursing practice, nursing education, nursing research and nursing administration.

**Nursing Education:** In our nursing education curriculum, we were concerned in preventive and primitive aspects. One of the leading functions of nursing is imparting education. With the newer knowledge, the scope of education increases. Nursing students should give awareness regarding worm infestation in the community area during their community postings.

**Nursing Practice:** Today health care delivery system had change from care oriented approach to preventive approach. So it focuses mainly on primary prevention which is aimed at health promotion. Considering these factors, nursing personnel can contribute much for prevention by creating awareness in community through school health programmes, camps and mass media education.

**Nursing Research:** There is a requirement of large

And thorough experimentation in this area. So that plan for educating nurses regarding worm infestation among mothers. The nurses should manage experiment on different feature of worm infestation and its environmental effects to provide more scientific data and adds more scientific body of details to the nursing occupation.

**Nursing Administration:** The nurse administrator should take attentiveness in providing that details on health related prevention programmes beneficial to community planning,

such as e-program should be organized in community. The knowledge of nurse must be updated through in-service education and refresher courses.

**Recommendations**

Based on the uncovering of the study the following advices are:

1. A similar study can be replicated on a sample with different demographic characteristics.
2. A similar study may be replicated with control group.
3. A Like learning may be reproducing on a large population for broad generalization.
4. An extensive teaching programme may be conducted including all aspects of worm infestation and its prevention for better understanding.

**Conclusion**

As per the study findings, the knowledge of mothers of pre-school children regarding worm infestation was moderately adequate (48%). The knowledge of mothers of pre-school children was not influenced by any of the demographic variable mentioned in this study.

**Reference**

- [1] Park, J.E. K. Park ‘Parks’ Text Book of Preventive and Social Medicine. New Delhi, Banarsidas Bharat Publishers 2002.
- [2] Dorothy Marlow’s, “Textbook of Pediatric Nursing” 6<sup>th</sup> ed. Philadelphia: W.B. Saunder’s publications; 1988.
- [3] B.T. Basavanhappa; community health nursing, second edition, J.P.brothers medical publishers Pvt. Ltd., 2008.
- [4] Ananthkrishna S, Nalini P & Pani S.P; Intestinal geohelminthiasis in the developing world, national Med j of India 1991; Vol 10, No.2.
- [5] Crompton DWT: gastrointestinal Nematodes – Ascaris, hookworm, trichuris, and Enterobius. Topley and Microbiology and Microbial Infections 1998; Vol 5-Parasitology : 561-580.
- [6] Wani S A, Ahamad F, Zargar S A, Ahamad Z, Ahamad P, Tak H PREVELANCE of intestinal parasites and associated with risk factors among school children in Srinagar city Kashmir India. J Parasital.2007dec;93(6):1541-3
- [7] Traub RJ, Robert son ID, Irwin P, Mencke N, Andrew Thompson RC The prevalence associated with geohelminth infection in Tea growing communities Assam, India. Trop Med Int Health. 2004 Jun, 9(6): 688-701.

- [8] Awasthi S, verma T, kotecha PV, Venkatesh V, Joshi V, Roy S, prevalence and risk factors associated with worm infestation in pre-school children (6-23 months) in selected blocks and Indian J. Med Sci 2008; 62:484-91.
- [9] Balan, K Mother: The Guardian of family Health. Social Welfare 1989 : 3-5.
- [10] Savioli L; Mott KE; Yu SH intestinal worms. World Health. 1996 Jul-Aug; 49 (4): 28.
- [11] Khuroo M.S: Ascaris gastroenterol Clin North Am 1996 Sep; 25 (3) 553-77.
- [12] Ostan I, Kilimcioglu AA, Girginkardesler N, Ozyurt BC, Limoncu ME, Ok UZ. Health inequities: lower socio-economic conditions and higher incidences of intestinal parasites. BMC Public Health 2007 Nov 27; 7(147): 342.
- [13] Quihui L, Valencia ME, Crompton DW, Phillips S, Hagan P, Morales G et al. Role of the employment status and education of mothers in the prevalence of intestinal parasitic infections in Mexican rural school children. BMC Public Health 2006 Sep 6; 6: 225.
- [14] Giray H, Keskinoglu P. The prevalence of Enterobius vermicularis in school children and affecting factors. Turkiye Parazitoloj Derg 2006; 30(2): 99-100.
- [15] Ulukanligil M, Seyrek A. Demand patasitic infection statuofschool children and saniconditions of schools in Sanliurfa. Turkey. BMC Public Health 2003 Sep 3; 3: 29.
- [16] Edirisinghe JS. Weilgama DJ. Soil contamination with geohelminth ova in tea plantation in Ceylon. Med J 1997 Dec: 42(4): 167-72.