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A study to assess the knowledge and preventive practices regarding worm infestation among mothers of under-five children attending Paediatric OPD, Jawaharlal Nehru Institute of Medical Sciences Hospital, Porompat, Imphal, Manipur

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Abstract

Introduction: Worm infestation is a type of parasitic illness in which an organism lives inside the body of another organism and cause manifestations of illness ⁽²⁾. According to WHO 2020, more than 1.5 billion people, or 24% of the world's population, are infected with soiltransmitted helminth infections worldwide. (15). All children are most vulnerable group in the society, which could result in increased morbidity and mortality rates⁽⁸⁾. According to WHO (2019), an estimated 5.2 million children under 5 years died mostly from preventable and treatable causes. India is the second country in the world with the highest number of under-five deaths from diarrhea, vector borne diseases, helminthic infestation, respiratory infections and injuries ⁽¹⁶⁾. According to the Health Ministry data (2015), Manipur has a moderate prevalence (20% - 50%) of worm infection.⁽²⁰⁾.

Aims and objectives: To assess the knowledge and preventive practices regarding worm infestation among mothers of under-five children.

Materials and Methods: A descriptive cross-sectional study was conducted to assess the knowledge and preventive practices regarding worm infestation among mothers of under-five children attending Paediatric OPD, Jawaharlal Nehru Institute of Medical Sciences Hospital, Porompat, Imphal, Manipur. Non-probability convenient sampling technique was used to select 152 mothers of under-five children. Data were collected using structured questionnaire on knowledge and preventive practices from 1st to 27th February,2021 and analyzed using descriptive and inferential statistics.

Result: The results of the study showed that out of 152 mothers, 75 (49.3%) had inadequate knowledge, 73 (48%) had moderately adequate knowledge and only 4 (2.6%) had adequate knowledge regarding worm infestation. The

overall mean score was 16.69 \pm 4.670 (Mean \pm SD).

Regarding preventive practices majority i.e., 121(79.6%) of the mothers had good preventive practices ,28(18.4%) had average preventive practices and only 3(2%) of the mothers had poor preventive practices regarding worm infestation. The overall mean score was 15.12 ± 2.466 (Mean \pm SD). There was a moderately positive correlation observed between knowledge and preventive practices regarding worm infestation among mothers of under-five children as evidenced by r = 0.398 and p value = 0.000.

There was significance association found between knowledge regarding worm infestation among mothers of under-five children with selected socio- demographic variables i.e. religion, residential area, mother's educational status, type of house, drainage system, mother's occupation, family income and sources of health information (p-value < 0.05).

In preventive practices, significant association was found between preventive practices regarding worm infestation among mothers of under-five children with the type of house and type of water supply (p-value < 0.05).

Conclusion: It is concluded that most of the mothers i.e., 75 (49.3 %) had inadequate knowledge and majority of the mothers i.e., 121(79.6%) had good preventive practices. Therefore, even though preventing practices was good, their knowledge level was low.

Thus, mass awareness programmer on worm infestation and prevention can be given to the mothers through various methods like mass media. Health education and clarifying public view and doubt to increase knowledge on worm infestation and prevent from worm infestation related diseases or complications.

Keywords: Knowledge, Preventive practices, Worm infestation, Mother of under-five children.

Introduction

Child health plays a vital role in the development of a country. The first six years of life constitutes the most crucial span in life. At this stage of life, the foundation is laid for mental, physical and social development ⁽¹⁾. Worm infestation is a type of parasitic illness in which an organism lives inside the body of another creature ⁽²⁾. Helminthiasis, also known as worm infection, is any macroparasitic disease of humans and other animal in which a part of the body is infected with parasitic worms, known as helminthes (4). Worm infestation is a major problem in children from developing countries due to poor sanitary and unhygienic conditions. Impure water, low socio-economic life, poor sanitation combined with low literacy rates of parents, particularly the mothers, are the main causes of the prevalence of worm infestation $^{(7)}$. Children under-five years are vulnerable or special risk group in any population deserving special health care because of their developing immunity and the various stages of growth and development⁽⁸⁾.

According to WHO (2020) more than 1.5 billion people, or 24% of the world's population, are infected with soil-transmitted helminth infections worldwide. Over 267 million preschool-age children and over 568 million school-age children live in areas where these parasites are intensively transmitted, and are in need of treatment and preventive interventions⁽¹⁵⁾.

According to WHO,2019 an estimated 5.2 million children under 5 years died mostly from preventable and treatable causes. India is the second country in the world with the highest number of under-five deaths next to Nigeria ⁽¹⁶⁾. As per Census 2011, India is with a population of 121.1 Cr., where 16.45 Cr. of its population were in the age group 0-6 ⁽¹⁷⁾. In India, 225 million preschool and school-age children are estimated to be at risk of infection from worms.

India accounts for 65% of soil-transmitted helminth (parasitic worms) cases in South East Asia, and 27% of cases globally ⁽¹⁸⁾. According to Health Ministry data (2015), worm infection among Indian children shows varied prevalence ranging from 85% in Tamil Nadu to 12.5% in Madhya Pradesh. At least 16 states and three Union territories had moderate prevalence (20% - 50%), so Manipur is under this category ⁽²⁰⁾.

With an aim to intensify efforts towards Soil-transmitted helminthiases (STH) control among children in India, the Ministry of Health & Family Welfare, Government of India (GOI) has launched National Deworming Day (NDD) on 10th February 2015 in 277 districts of 11 states and Union Territories. The National Deworming Day will be followed by a Mop-Up Day (MUD) on 13th February 2015 with the intent of deworming children who missed the dose on February 10th. Every year, February 10 and August 10 are observed as the National Deworming Day (NDD).

All preschool and school-age children (enrolled and nonenrolled) between the ages of 1-19 years through the platform of schools and Anganwadi centers will be given age specific dose of Albendazole 400mg tablets to improve their overall health, nutritional status, access to education and quality of life. Albendazole 400mg half tablet per oral for children 1-2 years and Albendazole 400mg full tablet per oral for children 2-19 years. The Albendazole tablets were administered by the school teachers and Anganwadi's workers to the school enrolled children and under-five and out of school children and adolescents respectively⁽¹⁹⁾.

Aims and objectives

Primary objectives of the study

• Assess the knowledge regarding worm infestation among the mothers of under-five children.

• Identify the preventive practices regarding worm infestation among the mothers of under-five children.

Secondary objectives of the study

• Find out the association between knowledge of the mothers regarding worm infestation with selected socio-demographic variables.

• Find out the association between preventive practices of the mothers regarding worm infestation with selected socio-demographic variables.

• Determine the correlation between knowledge and preventive practices regarding worm infestation among the mothers of under-five children.

Methodology

Study Design

A descriptive cross-sectional research study.

Setting

The study was conducted in Paediatric OPD, Jawaharlal Nehru Institute of Medical Sciences Hospital, Porompat, Imphal, Manipur.

Study population and study period

A total of 152 mothers of under-five children were selected in the study using convenience sampling technique and data was collected from 1st to 27th February 2021.

Data retrieval and analysis

The data was retrieved for a one-month period in the OPD of JNIMS hospital, Porompat, Imphal among 152 mothers of under-five children. The tools used for the study were socio-demographic data of the mothers, structured knowledge questionnaire and structured preventive practices questionnaire.

The tools were translated into Manipuri for those mothers who cannot speak and write in English. The data were grouped and analyzed using SPSS software 23 version according to the objectives and hypotheses of the study

using descriptive and inferential statistics and were

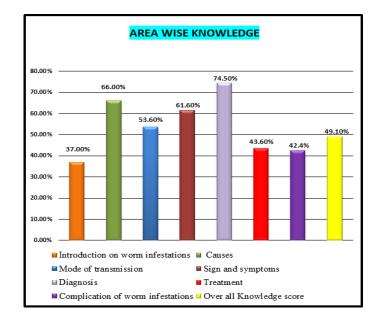
presented in the form of graphs, table and diagrams.

Results

Table 1: Frequency and percentage distribution of mothers according to knowledge scores regarding worm infestation. (N=152)

Knowledge level	Range of score	Frequency (f)	Percentage (%)
Adequate	>75%	4	2.6
Moderately adequate	50-75%	73	48.0
Inadequate	<50%	75	49.3
Total		152	100

Fig 1: Bar diagram showing area wise knowledge score of mothers regarding worm infestation, causes, mode of transmission, sign and symptoms, diagnosis, treatment and complication.



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Table 2: Frequency and percentage distribution of mothers according to preventive practices score regarding worm infestation. (N=152)

Practices	Range of score	Frequency (f)	Percentage (%)
Good	>75%	121	79.6
Average	50-75%	28	18.4
Poor	<50%	3	2.0
Total		152	100

Table 3: Computation of Chi-square test to determine the association between knowledge regarding worm infestation with selected socio-demographic variables. (N=152)

Demographic	Category Frequency					Chi-	p-value
variables		Adequate (%)	Moderate (%)	Inadequate (%)	(%)	square	
Age of the	≤ 20 years	1(5.6)	7(38.9)	10(55.6)	18	5.017	.542
mother	26-30 years	2(3.8))	29(55.8)	21(40.4)	52	-	NS
	31-35 years	1(3.0)	16(48.5)	16(48.5)	33	-	
	≥36 years	0(0.0)	21(42.9)	28(57.1)	49	-	
Age of the	(0-1)yr	1(2.3)	22(51.2)	20(46.5)	43	8.035	.090
children	(2-3) yrs.	1(1.8)	33(60.0)	21((38.2)	55	-	NS
	(4-5) yrs	2(3.7)	18(33.3)	34(63.0)	54		
Religion	Hindu	1(1.6)	20(32.3)	41(66.1)	62	12.844	.046*
	Muslim	2(4.3)	28(59.6)	17(36.2)	47	1	

	Christian	1(3.4)	16(55.2)	12(41.4)	29		
	Others	0	9(64.3)	5(35.7)	14	1	
Residents' area	Rural	1(1.0)	41(39.8)	61(59.2)	103	14.167	.001*
	Urban	3(6.1)	32(65.3)	14(28.6)	49	_	
Mother's	Primary	0(0.0)	7(20.0)	28(80.0)	35	25.554	.000*
Educational	Secondary	2(3.4)	26(44.1)	31(52.5)	59		
status	Graduate	2((4.4)	31(68.9)	12(26.7)	45	_	
	Post Graduate & above	0(0.0)	9(69.2)	4(30.8)	13		
Type of house	Pucca building	3(6.8)	32(72.7)	9(20.5)	44	24.960	.000*
	Semi-pucca	1(1.5)	29(43.3)	37(55.2)	67		
	Kutcha	0(0.0)	12(29.3)	29(70.7)	41		
Drainage	Open	2(1.7)	49(41.5)	67(56.8)	118	12.315	.002*
system	Close	2(5.9)	24(70.6)	8(23.5)	34	1	
Mother's	Housewife	2(2.6)	27(35.5)	47(61.8)	76	16.640	.011*
occupational	Gov. employee	0(0.0)	17(70.8)	7(29.2)	24		
status	Self- employed	1(3.3)	13(43.3)	16(53.3)	30		
	Private employee	1(4.5)	16(72.7)	5(22.7)	22		
Types of family	Nuclear family	2(3.5)	23(40.4)	32(56.1)	57	5.750	.452
	Joint family	2(2.6)	44(56.4)	32(41.0)	78		NS
	Extended family	0(0.0)	342.9)	4(57.1)	7	1	
	Single parent family	0(0.0)	3(30.0)	7(70.0)	10	1	
Family income	0-5001	1(3.7)	5(18.5)	21(77.8)	27	24.625	.000*
	5001-10000	1(1.8)	22(40.0)	32(58.2)	55		
	10001-15000	0(0.0)	14(53.8)	12(46.2)	26	1	1
	>15000	2(4.5)	32(72.7)	10(22.7)	44	1	1
Source of health	Newspaper	0	7(46.7)	8(53.3)	15	24.955	.002*
information	Radio	0	6(17.1)	29(82.9)	35		
	Television	1(4.3)	14(60.9)	8(34.8)	23		
	Health personal	1(1.9)	32(61.5)	19(36.5)	52		
	Friends& relatives	2(7.4)	14(51.9)	11(40.7)	27		
Water supply	Pond	0(0.0)	5(35.7)	9(64.3)	14	9.848	.131
	Tape water	2(1.9)	48(44.9)	57(53.3)	107		NS
	Well water	1(4.3)	15(65.2)	7(30.4)	23		1
	Bore water	1(12.5)	5(62.5)	2(25.0)	8		
Place of	Open field	0(0.0)	2(66.7)	1(33.3)	3	1.117	.892
defecation	Public field	0(0.0)	4(40.0)	6(60.0)	10	1	NS
	Sanitary latrines	4(2.9)	67(48.2)	68(48.9)	139	1	

*Significant at 5% level (P-value < 0.05) NS: Not significant

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Table 4: Computation of Chi-square test to determine the association between preventive practices regarding worm

Demographic	Category Frequency of preventive practice			Total Chi-		p-value	
variables		Good (%)	Average (%)	Poor (%)	(%)	square	
Age of the	≤ 20 years	12(66.7)	4(22.2)	2(11.1)	18	10.016	.124
mother	26-30 years	41(78.8)	10(19.2)	1(1.9)	52		NS
	31-35 years	27(81.8)	6(18.2)	0(0.0)	33	-	
	≥36 years	41(83.7)	8(16.3)	0(0.0)	49	_	
Age of the	(0-1) yr.	33(76.7)	7(16.3)	3(7.0)	43	7.903	.095
children	(2-3) yrs	45(81.8)	10(18.2)	0(0.0)	55	_	NS
	(4-5) yrs	43(79.6)	11(20.4)	0(0.0)	54	-	
Religion	Hindu	48(77.4)	13(21.0)	1(1.6)	62	6.280	.393
	Muslim	34(72.3)	11(23.4)	2(4.3)	47	_	NS
	Christian	27(93.1)	2(6.9)	0(0.0)	29	_	
	Others	12(85.7)	2(14.3)	0(0.0)	14	_	
Residential	Rural	82(79.6)	18(17.5)	3(2.9)	103	1.582	.453
area	Urban	39(79.6)	10(20.4)	0(0.0)	49		NS
Mother's	Primary	25(71.4)	9(25.7)	1(2.9)	35	11.325	.079
Educational	Secondary	42(71.2)	15(25.4)	2(3.4)	59		NS
status	Graduate	41(91.1)	4(8.9)	0(0.0)	45		
	Post Graduate & above	13(100)	0(0.0)	0(0.0)	13		
Type of house	Pucca building	40(90.1)	3(6.8)	1(2.3)	44	16.584	.002*
	Semi-pucca	44(65.7)	22(32.8)	1(1.5)	67		
	Kutcha	37(90.2)	3(7.3)	1(2.4)	41		
Drainage	Open	91(77.1)	25(21.2)	2((1.7)	118	2.807	.246
system	Close	30(88.2)	3(8.8)	1(2.9)	34		NS
Mother's	Housewife	54(71.1)	19(25.0)	3(3.9)	76	10.283	.113
occupational	Gov. employee	22(91.7)	2(8.3)	0(0.0)	24	_	NS
status	Self- employed	24(80.0)	6(20.0)	0(0.0)	30	_	
	Private employee	21(95.5)	1(4.5)	0(0.0)	22	_	
Types of	Nuclear family	47(82.5)	10(17.5)	0(0.0)	57	7.423	.283
family	Joint family	59(75.6)	17(21.8)	2(2.6)	78	_	NS
	Extended family	7(100)	0(0.0)	0(0.0)	7	_	
	Single parent family	8(80.0)	1(10.0)	1(10.0)	10	_	
Family income	0-5001	21(77.8)	6(22.2)	0(0.0)	27	7.161	.306
	5001-10000	42(76.4)	11(20.0)	2(3.6)	55	-	NS
	10001-15000	18(69.2)	7(26.9)	1(3.8)	26	-	
	>15000	40(90.9)	4(9.1)	0(0.0)	44	-	
Source of	Newspaper	14(93.3)	1(6.7)	0(0.0)	15	7.814	.452
health	Radio	29(82.9)	5(14.3)	1(2.9)	35	1	NS
information	Television	18(78.3)	5(21.7)	0(0.0)	23	1	

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infestation with selected socio-demographic variables. (N=152)

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	Health personal	43(82.7)	8(15.4)	1(1.9)	52		
	Friends& relatives	17(63.0)	9(33.3)	1(3.7)	27		
Water supply	Pond	6(42.9)	6(42.9)	2(14.3)	14	20.890	.002*
	Tape water	88(82.2)	18((16.8)	1(0.9)	107	1	
	Well water	21(91.3)	2(8.7)	0(0.0)	23	1	
	Bore water	6(75.0)	2(25.0)	0(0.0)	8	1	
Place of	Open field	3(100)	0(0.0)	0(0.0)	3	1.611	.807
defecation	Public field	9(90.0)	1(10.0)	0(0.0)	10	1	NS
	Sanitary latrines	109(78.4)	27(19.4)	3(2.2)	139	_	

*Significant at 5% level (P-value < 0.05) NS: Not significant

Table 5: Computation of 'r' to find out the correlation between the knowledge and preventive practices regarding worm infestation among mothers of under-five children.

Score	Mean	SD	'r' (Karl Pearson Coefficient)	p-value
Knowledge score	16.69	4.67	0.398	0.000*
Preventive practice score	15.14	2.47		

*P-vale< 0.05; Positive correlated with Significant

Discussion

The findings of the present study results were discussed in relation to the objectives of the study conducted and this was compared to the results of similar studies in the area of research. In this study the objectives were to assess the knowledge and preventive practices regarding worm infestation among mothers of under-five children attending Paediatric OPD, Jawaharlal Nehru Institute of Medical Sciences Hospital, Porompat, Imphal, Manipur"

Findings related to demographic characteristics of the participants

• The present study showed that majority 34.2% of the mothers were at the age groups of (26-30) years, 32.2% were at the age group of 35years and above, 21.7% are at the age group of (31-35) years and only 11.8% were at the age group of below 25 years. On the contrary to this study, Madan Mohan Gupta et al. (2017)⁽⁷¹⁾. study result showed that majority of the mothers (45%) were in the age group of (18-21) years.

• Religion of the mothers shows majority 40.8% were Hindus, 30.9% were Muslims, 19.1% were Christians and 9.2% belonged to any other religion. Similar finding was observed by Suganya V et. al. $(2018)^{(63)}$, where majority i.e.,80% of the mother were Hindus.

• Regarding the residential area of mothers of underfive children majority number i.e., 67.8% were from rural area and 32.2% were from urban area which was similar with the finding of Suganya V et. al. $(2018)^{(63)}$ where majority i.e., 60% of the mothers lived in rural area.

• About the educational qualification, the present study showed that majority (38.8%) had completed secondary education level. This result is in contrast with the study done by Madan Mohan Gupta et al. (2017) ⁽⁷¹⁾ where majority of the mothers (32%) were 10 and below educational status.

• According to occupation, majority i.e., 50% mothers of under-five children were housewives, 19.7% were self-employed, 15.8% were government employee and 14.5% were private employees. Similar finding was observed by Suganya V et. al. (2018)⁽⁶³⁾, where majority (95%) of mothers were house wife.

• In regard to type of family, majority 51.3% belongs to joint family, 37.5% belongs to nuclear family, 6.6% belongs to single parent family and 4.6% belongs to extended family. Similarly D Disha Patel et. al. (2017)⁽⁷²⁾ reported that majority (70%) of the mother belongs to joint family.

• Regarding family income majority i.e.,36.2% earned (5001-10000) per month, 28.9% earned more than 15000 per month, 17.8% earned less than 5000 per month and 17.1% earn (10001-15000) per month while contrary to this study, Madan Mohan Gupta et al. (2017) ⁽⁷¹⁾ study result showed that majority (57%) of the mothers' family income were (10000-15000) per month.

• According to their source of health information, majority (34.2%) got health information from the health personal, 23% from radio, 17.8% from their friends and relatives ,15.1 % from television and only 9.9% of mothers from newspaper. This study findings were similar with a study done by Madan Mohan Gupta et al. (2017) ⁽⁷¹⁾. where the findings showed that majority (23%) of the mothers got information from health professionals.

• Regarding type of water supply, majority (70.4%) used tape water, 15.1% used well water, 9.2% used pond water and 5.3% used bore well water. In the contrast to this finding, a study done by Suganya V et. al. (2018)⁽⁶³⁾ found that majority (71.7%) of the mothers used bore well water.

• Regarding place of defecation, majority (91.4%) used sanitary latrines, 6.6% used public latrines and 2% used open field for defecation. Whereas on contrary to this study result, Suganya V et. al. (2018) ⁽⁶³⁾ found that (75%) of participant defecated in open field.

Findings related to knowledge of mothers of under-

five children regarding worm infestation

The present study the findings showed that the majority of the participants i.e., 49.3% had inadequate knowledge, 48% had moderately adequate knowledge and only 2.6% had adequate knowledge regarding worm infestation among mothers of under-five children. This study is supported with the result of the study conducted by D. Disha Patel et al. (2017)⁽⁷²⁾ where the result shows that 67.50% of the mother have inadequate knowledge regarding worm infestation. Further, the present study result is contrasted with the study done by AL Ganesh Gebreyohanns et al. (2018)⁽⁷³⁾ where the result reveal that 94% had good knowledge regarding worm infestation.

Findings related to preventive practices regarding worm infestation among mothers of under-five children.

The result showed that out of 152 mothers, majority i.e., 121(79.6%) had good preventive practices, 28(18.4%) had average preventive practices and only 3(2%) had poor preventive practices. This study is supported with the findings of the study conducted by D. Disha Patel et al. $(2017)^{(72)}$, the result showed that 85% of the mother had good practice and 15% of the mothers were having average practice. This study result was contrast with the study done by AL Ganesh Gebreyohanns et. al $(2018)^{(73)}$. The result showed that 35.9 % had poor preventive practices regarding worm infestation in spite of majority 94.4% had good knowledge on worm infestation.

Findings related to association between knowledge regarding worm infestation among mothers of under-five children with selected demographic variables.

The present study revealed that there was significance of association found between knowledge regarding worm infestation with socio-demographic variables like

religion, residential area, mother's educational status, type of house, drainage system, mother's occupation, family income and sources of health information which are significant at 5% level of significant. Therefore, it can be concluded that the knowledge regarding worm infestation among the mothers of under-five children are dependent on the above-mentioned socio-demographic variables.

The present study also revealed that the calculated pvalues for their selected demographic variables such as age of the mother, age of the children, type of family, water supply and place of defecation are 0.542, 0.090, 0.452, 0.131 and 0.892 respectively which are not significant enough as evident by the corresponding pvalue which are more than 0.05, the cut-off level which can be correlated to the study reported by D. Disha Patel et al. (2017)⁽⁷²⁾ where there was a significant association between knowledge of mothers of under-five children with selected socio-demographic variables such as age, education, occupation, family income and no significant association between knowledge of mothers of under-five with their type of family. Similar finding was also observed from the study conducted by Prathaban. S $(2010)^{(74)}$, where the result revealed that there was significant association found between level of knowledge with demographic variables such as education qualification (0.0003) and source of information (0.0029)regarding worm infestation. The present study findings was in contrast with the result of the study conducted by Madan Mohan Gupta et al (2017)⁽⁷¹⁾ where there was no significant association found between knowledge level and demographic variables.

Findings related to association between preventive practices regarding worm infestation among mothers of under-five children with selected demographic variables. The present study showed that there was no significant association found between preventive practices regarding worm infestation among mothers of under-five children with age of the mother, age of the children, religion, residential area, mother's educational status, drainage system, mother's occupation, types of family, family income, source of health information and place of defecation but significant association was found in the type of house (0.002) and type of water supply (0.002) at 5% level of significance.

Therefore, it can be concluded that the preventive practices regarding worm infestation among mothers of under-five children are independent of the abovementioned demographic variables except for type of house and type of water supply while Y. Swarajyam (2011) ⁽⁷⁵⁾ reported that there was statistically significant association found between level of practices with demographic variables such as education and occupation of the mother which was in contrast with the present study.

Findings related to correlation between knowledge and preventive practices regarding worm infestation among mothers of under-five children.

The present study showed 0.398 correlation coefficient 'r' between knowledge and preventive practices regarding worm infestation among mothers of under-five children which indicates that there was significant moderately positive correlation (0 < r <1) between knowledge and preventive practices regarding worm infestation among mothers of under-five children. Similar finding was also observed on a study conducted by Prathaban. S (2010) ⁽⁷⁴⁾, which showed a correlation between the knowledge and practices regarding worm infestation i.e., r = 0.8829 which indicates a highly significant positive correlation. Therefore, when the knowledge increases their practices also increase highly.

Limitations

The study findings cannot be broadly generalized as the sampling technique used was non-probability convenient sampling technique and sample size was limited to 152 only. The study was not large and was conducted only in Jawaharlal Nehru Institute of Medical Science Hospital, Porompat, Imphal, Manipur.

Conclusion

The study findings have shown that among 152 mothers, 75 (49.3%) had inadequate knowledge and majority of the mothers i.e., 121(79.6%) had good preventive practices. Therefore, even though their preventing practices were good, their knowledge level on worm infestation was low. Hence, nurses play an important role to educate the mothers of under- five children for prevention of worm infestation. Mass awareness programme on worm infestation and prevention can be given to the mothers through various methods like mass media, health education and clarifying public view and doubt. Worm infestation programmes can be organized in the community settings and schools to prevent the potential effects caused by worm infestation. The study can be replicated on a larger sample for generalization. Thus, it can be concluded that by giving awareness regarding worm infestation will increase the knowledge of the mothers of under-five children and their child will be prevented from worm infestation related disease or complications.

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