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RESEARCH ARTICLE

KNOWLEDGE REGARDING PREVENTION OF HELMINTHIC DISEASE AMONG SCHOOL CHILDREN

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Abstract

Introduction: Helminthic diseases are worldwide in distribution; infection is most common and most serious in poor countries. The distribution of these diseases is determined by climate, hygiene, diet, and exposure to vectors. The most serious helminthic diseases are acquired in poor tropical and subtropical areas, but some also occur in the developed world; other, less serious, infections are worldwide in distribution. Exposure to infection is influenced by climate, hygiene, food preferences, and contact with vectors. Many potential infections are eliminated by host defenses; others become established and may persist for prolonged periods, even years. Although infections are often asymptomatic, severe pathology can occur. Because worms are large and often migrate through the body, they can damage the host's tissues directly by their activity or metabolism. Damage also occurs indirectly as a result of host defense mechanisms. Almost all organ systems can be affected.

Methodology: In this descriptive study, 100 school children from selected schools of district Una in the age group of 14-17 years were selected as the samples for the study by using total stratified sampling technique. The data was collected by using self structured knowledge questionnaire on preventive measures of helminthic disease. Data analysis was performed by descriptive statistics and inferential statistics. SPSS-17 software was used and P values less than 0.05 were considered significant.

Result: The findings show that the majority of children had fair level of knowledge (54%), 24% children had poor level of knowledge, 20% children had good level of knowledge and 2% children had excellent level of knowledge regarding preventive measures of helminthic diseases.

Discussion: The result shows that out of 100 school children, only 2% of the school children had excellent level of knowledge, 20% of school children had good level of knowledge, 54% of the school children had fair level of knowledge and 24% of the school children had poor level of the knowledge regarding preventive measures of helminthic diseases which was calculated at 0.05 level of significance.

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Introduction:-

Soil-transmitted helminth infections are among the most common infections worldwide and affect the poorest and most deprived communities. They are transmitted by eggs present in human faeces which in turn contaminate soil in areas where sanitation is poor. The main species that infect people are the roundworm (*Ascaris lumbricoides*), the whipworm (*Trichuris trichiura*) and hookworms (*Necator americanus* and *Ancylostoma duodenale*). More than 1.5 billion people, or 24% of the world's population, are infected with soil-transmitted helminth infections worldwide. Infections are widely distributed in tropical and subtropical areas, with the greatest numbers occurring in sub-Saharan Africa, the Americas, China and East Asia. 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. Globally over 600 million people are estimated to be infected by *S. stercoralis* however, since also this parasite is transmitted in areas where sanitation is poor, its geographical distribution overlaps with the one of the other soil-transmitted helminthiases.

Materials And Methods:-

A Quantitative research approach was adopted for the study. A descriptive research design was utilized to achieve the objective of the study. The study was conducted in the selected school of district Una that was Jai Bharat Public School Nari. Researcher's familiarity with setting and availability of required sample were also considered while selecting the study group. The target population is school children with the age group of 14-17 years in the selected school of village Nari. In the present study 100 sample were selected by using stratified sampling technique. Interview schedule with self structured knowledge questionnaire to assess the knowledge regarding prevention of helminthic diseases among school children. This section consist of 20 questions to assess the knowledge of students regarding prevention of helminthic diseases.

Knowledge of subjects was graded as given below.

Level of Awareness	Score
Poor	0-5
Fair	6-10
Good	11-15
Excellent	16-20

Demographic variables were collected by using interview technique. For descriptive research design, demographic variable, self structured knowledge questionnaire was collected. Data was collected from 100 school children with the age group of 14-17 year. After the data collection, informational booklet on preventive measures of helminthic diseases were provided to the students. Data collection procedure terminated by thanking the students for their co-operation.

Result:-

Demographic variable description

Table 1:- Frequency And Percentage Distribution Of Subjects According To Their Socio Demographic Variables.

S.NO	SOCIO DEMOGRAPHIC VARIABLES	FREQUENCY (f)	PERCENTAGE (%)
1.	Age of student		
	14-15	48	48.0%
	15-16	34	34.0%
2.	Gender		
	Male	62	62.0%
3.	Father's education		
	No formal education	10	10.0%
	Metric	10	10.0%
	Secondary	27	27.0%
	Graduation	34	34.0%
POST GRADUATION	19	19.0%	
4.	Mother's education		
	No formal education	10	10.0%

	Metric Secondary Graduation POST GRADUATION	34 23 27 06	34.0% 23.0% 27.0% 06.0%
5.	Eating habit Vegetarian Non vegetarian	60 40	60.0% 40.0%
6.	Monthly family income Less than 10,000 10,001 to 20,000 20,001 to 30,000 More than 30,000	08 10 24 58	08.0% 10.0% 24.0% 58.0%
7.	Family type Nuclear Joint family	61 39	61.0% 39.0%

Table 2:- Level of awareness regarding preventive measures of helminthic diseases among the school children.

S.No	LEVEL OF KNOWLEDGE	SCORE	FREQUENCY	PERCENTAGE
1	POOR	0-5	28	28%
2	FAIR	6-10	50	50%
3	GOOD	11-15	16	20%
4	EXCELLENT	16-20	6	2%

Table 3:- Associate the knowledge score with socio demographic variables.

S.No		POOR		FAIR		GOOD		EXCELLENT		Total	Chi square total
1.	Age										
		f	%	f	%	f	%	f	%		4.15
	14-15	12	25	20	41.6	09	18.7	07	14.5	48	
	15-16	09	26.4	11	32.3	06	17.6	08	23.5	34	
	16-17	03	16.6	05	27.7	04	22.2	06	33.3	18	
	Gender										
2.											11.121
	Male	28	45.1	18	29.0	10	16.1	06	9.6	62	
	Female	09	23.6	15	39.4	09	23.6	05	13.1	38	
	Father's Education										
3											21.34
	No formal education	0	0	2	20	3	30	5	50	10	
	Metric	2	20	3	30	3	30	2	20	10	
	Secondary	6	22.2	3	11.1	5	18.5	13	48.1	27	
	Graduation	7	20.5	6	17.6	6	17.6	15	44.1	34	
	Post graduation	3	15.7	2	10.5	5	26.3	9	47.3	19	
	Mother's Education										
4											18.23
	No formal education	1	10	2	20	2	20	5	50	10	
	Metric	6	17.6	8	23.5	8	23.5	12	35.2	34	
	Secondary	4	14.8	3	11.1	5	18.5	15	55.5	27	
	Graduation	2	8.6	2	8.6	11	47.8	8	34.7	23	
	Post	0	0	1	16.6	2	33.3	3	50	06	

	graduation										
Eating habit											
5											
	Vegeterian	24	40	12	20	11	18.3	13	21.6	60	2.84
	Non-Vegeterian	7	17.5	16	40	12	30	05	12.5	40	
Monthly family income											
6	Less than 10,000	2	25	0	0	3	37.5	3	37.5	08	3.934
	10,001 to 20,000	3	30	1	10	3	30	3	30	10	
	20,001 to 30,000	4	16.6	5	20.8	6	25	9	37.5	24	
	More than 30,000	16	27.5	21	36.2	9	15.5	12	20.6	58	
Family type											
7											
	Nuclear	24	39.3	14	22.9	10	16.3	13	21.3	61	3.31
	Joint family	7	17.9	10	25.6	12	30.7	10	25.6	39	

Discussion:-

The study was conducted using a descriptive research design, subject were selected by stratified sampling technique. The sample size was 100.

The first objective of the study to assess the level of knowledge regarding preventive measures of helminthic diseases among school children. It revealed that majority 50 % of student had good level of knowledge, 28% of the students had poor level of knowledge, 20% of the students had good level of knowledge and only 2% of the students had excellent level of knowledge.

The second objective of the study was to find out the association with socio demographic variables: It reveal that in relation to age of student, obtained chi-square value (4.17) and the tabulated value (12.59) at statistically significant ($p=0.05$).So ,there is no association between the age of the student with the knowledge regarding preventive measures of helminthic diseases.

In relation to gender, the obtained chi- square value (11.121) and the tabulated value (7.82) at statistically significant ($p=0.05$). It can be concluded that the tabulated value is less than the calculated value. So, there is an association between the gender of children with the knowledge regarding preventive measures of helminthic diseases.

In relation to the educational status of father, the obtained chi-square value is (21.34) and the tabulated value (21.03) at statistically significant ($p=0.05$). It can be concluded that the tabulated value is less than the calculated value. So, there is an association between the educational status of father with the knowledge regarding preventive measures of helminthic diseases.

The educational status of mother, the obtained chi-square value is (18.23) and the tabulated value (21.03) at statistically significant ($p=0.05$). It can be concluded that the tabulated value is more than the calculated value.So,there is no association between the educational status of mother with the knowledge regarding preventive measures of helminthic diseases.

In relation to eating habits , the obtained chi- square value(2.84)and tabulated value (7.82) at statistically significant ($p=0.05$). It can be concluded that the tabulated value is more than the calculated value.So,there is no association between the eating habits of family with the knowledge regarding preventive measures of helminthic diseases.

In relation to monthly family income , the obtained chi- square value(3.934) and tabulated value

(16.92) at statistically significant ($p=0.05$). It can be concluded that the tabulated value is more than the calculated value. So, there is no association between the income status of family with the knowledge regarding preventive measures of helminthic diseases.

In relation to type of family, the obtained chi-square value (3.31) and tabulated value (7.82) at statistically significant ($p=0.05$). It can be concluded that the tabulated value is more than the calculated value. So, there is no association between the type of family with the knowledge regarding preventive measures of helminthic diseases.

Conclusion:-

From the findings of the study following conclusion were drawn:

It was concluded that 50% children had fair knowledge regarding preventive measures of helminthic diseases. This indicates that children has no awareness regarding preventive measures of helminthic diseases.

There is association between demographic gender, educational status of father.

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