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Original Research Article

A comparative study to assess the knowledge regarding worm infestation and its preventive measures among mothers of pre-school children in selected urban and rural communities of Bangalore.

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Abstract

Worm infestation claims to be one of the main problems of childhood. This is considered as a greater health hazard in developing countries like India A comparative study to assess the knowledge regarding worm infestation and its preventive measures among mothers of pre-school children in selected urban and rural communities of Bangalore. Data was collected from 60 mothers from urban area and 60 mothers from rural area and are selected by purposive random sampling technique. The mean percentage knowledge score of mothers in urban area (52.08%) was higher than the mean percentage knowledge score of mothers in rural area (41.02%) regarding worm infestation. Hence the conclusion leads to the fact that a mother is urban area had relatively a higher knowledge regarding worm infestation in children.

Keywords: Worm infestation, mothers, and urban, rural, pre-school children.

Introduction

Worm infestation remains one of the main problems of child development. This is especially a greater health hazard in developing countries like India. One third of the world's population is infected with one or more species of intestinal helminthes, and public health specialists are concerned that these infections impair children's growth and development [1]. Studies have shown associations between helminthes infection and under nutrition, iron deficiency anemia, stunted growth, poor school attendance, and poor performance in cognition tests. Poor sanitation and lesser knowledge of mothers regarding causes, spread of infection, complications, care and prevention of worm infestations constitute the higher incidence [2].

The problem of helminthic infestation in children is wide spread in all tropical and sub tropical countries. Intestinal infestation throws an additional burden on the rapidly growing child whose state of health is already compromised by illness, malnutrition and insanitary condition [3]. Importance of gathering information on mother's perception and behavior is very useful for the implementation of a community-based intestinal helianthus control program.

The young children health maintenance and outcomes are influenced by their mother's knowledge and belief [4]. A significant statistical association was observed in the decrease of worm infestation rate among children with the increasing educational status of their mothers. It revealed that 19.73 percent and 18.91 percent of the mothers had no knowledge about mode of transmission and prevention of worm infestation respectively [5]. Their knowledge and positive attitude towards hygienic practices are important in the preventive cycle and it will help the mothers to effectively support for the development as their child moves from early childhood to the elementary school years, adolescence and into early adulthood.

Objectives of the study

The objectives of the study are

1. To assess the knowledge of mothers in urban areas regarding worm infestation and its preventive measures.
2. To assess the knowledge of mothers in rural areas regarding worm infestation and its preventive measures.
3. To compare the knowledge regarding worm infestation and its preventive measures among mothers in urban and rural areas.
4. To assess the association between knowledge of mothers in urban areas regarding worm infestation and its preventive measures and selected socio-demographic variables.
5. To assess the association between knowledge of mothers in rural areas regarding worm infestation and its preventive measures and selected socio-demographic variables.

Hypotheses

H1: There will be significant difference in knowledge regarding worm infestation and its

preventive measures in mothers of rural areas than the urban areas.

H2: There will be significant association between the knowledge of mothers in urban and rural areas regarding worm infestation and its preventive measures and the socio demographic variables.

Methodology

Research Design: The research design selected for the study was Descriptive Comparative design.

Research Approach: The research approach adopted for the study was Descriptive survey approach.

Setting: The setting for the study was selected urban areas and rural areas of Bangalore.

Sample and sampling technique: 60 mothers from urban areas and 60 mothers from rural areas who met the inclusion criteria were selected through non propability purposive sampling technique.

Variables

Dependent variable: In this study dependent variables are knowledge of urban area mothers and rural area mothers regarding worm infestation.

Attributive variable: Demographic variables like age, educational status, occupational status, family income, type of family, number of children, place of residence.

Sampling criteria

Inclusion criteria

The criteria for the sample selection are

- The mothers of pre-school children from selected urban and rural areas, Bangalore.
- The mothers of urban and rural areas, those who are willing to participate.

Exclusion Criteria

The exclusion criteria include

- The mothers of urban and rural areas, those who are unavailable during the period of data collection.

Description of the tool

The tool developed for this study consists of Demographic characteristics and self structured questionnaire regarding worm infestation.

Part 1: Demographic characteristics

The first part of the tool consists of 9 items for obtaining information about the selection background factors such as age, educational status, occupational status, type of family, family income, number of children, and place of residence, previous experience and source of information.

Part 2: Self structured questionnaire

The blue print of items in self structured questionnaire regarding worm infestation consists of 34 items which were divided into five areas. It includes incidence, causes, clinical manifestation, management, and preventive measures of worm infestation.

Scoring of the items

There were 34 items and were divided in such a way that 14 items in knowledge domain, 6 items in comprehension and 14 items in application. All the items were multiple choice questions, which had three alternative responses. Only one correct answer was included among three alternatives and the correct response was given the score of one and the wrong answer was given zero score. The total knowledge score was 34. Found reliable.

Data collection

The data was collected from 60 urban and 60 rural mothers. The purpose of the study and time duration was explained to the urban and rural mothers for getting free and true responses. Informed Consent was obtained from the respondents indicating their willingness for to participate in the study. The mothers who full filled the sampling criteria were selected from the urban areas and from rural areas by purposive sampling method.

Data Analysis and Major Findings

Section 1: Distribution of mothers according to demographic characteristics

Majority of mothers in urban area (33.3%) and mothers in rural area (36.67%) were in age group of 21-25 years and 26-30 years respectively. Both mothers in urban area (43.3%) and rural area (53.3%) were belong to the educational status up to SSLC level. Mothers in urban area, most of them (51.6%) were employed and among mothers in rural area, most of them (70%) were unemployed. Majority of both mothers in urban area (35%) and rural area (43.3%) whose monthly income was between ₹5001-₹10,000. Most of the mothers in urban areas (53.3%) belong to nuclear family and most of the mothers in rural areas (48.3%) belong to joint family. Highest percentage of both mothers in urban areas (65%) and rural areas (45%) has two children. Majority of both mothers in urban area (78.3%) and mothers in rural areas (68.3%) have previous experience regarding worm infestation. However 21.6% of mothers in urban area and 31.6% of mothers in rural area did not

have any previous experience regarding worm infestation. Among 78.3% of mothers in urban areas 35% of respondent's source of information regarding worm infestation was from mass media and among 68.3% of mothers in rural areas 26.6% of respondent's source of information was from health professionals.

Section 2: Level of knowledge of mothers in urban and rural area.

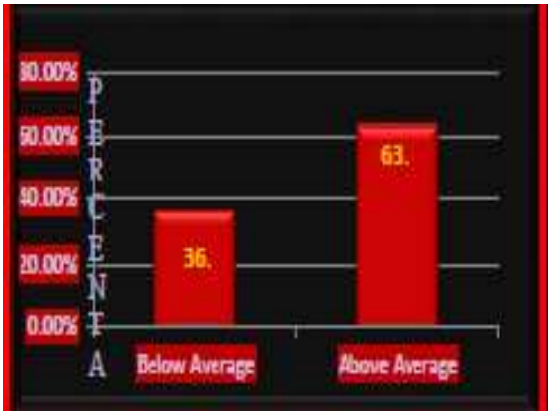

Figure 1: Bar diagram showing level of knowledge among mothers in urban area

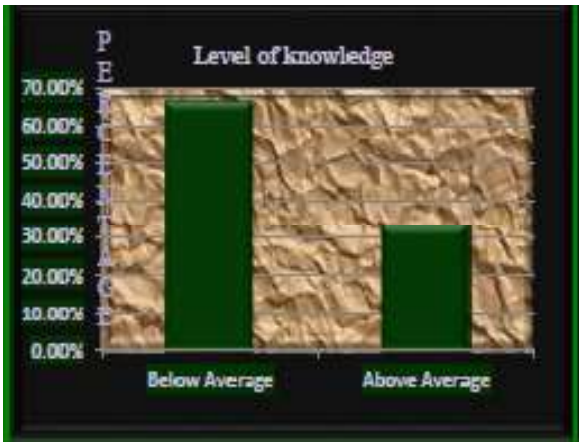

Figure 2: Bar diagram showing level of knowledge among mothers in urban area

The findings of this study revealed that the knowledge score of the mothers in urban area was higher than that of the mothers in rural area

Section 3: Association between the demographical variables and knowledge scores of mothers

The findings concluded that there was significant association between knowledge of mothers in urban area regarding worm infestation and the socio-demographic variable like previous knowledge chi-square value- 3.98 at 0.05 level of significance; and there was significant association between knowledge of mothers in rural areas regarding worm infestation and the socio-demographic variables like occupational status chi square value- 13.083 previous knowledge chi square value- 7.3182 and source of information chi square value- 11.091 at 0.05 level of significance.

Recommendations

Based on the findings of the study the following recommendations are made

- A similar study can be conducted on larger samples to generalize the findings.
- A similar study can be conducted among health professionals.
- An experimental study can be conducted with control group to assess the effectiveness of STP, by comparing post test knowledge scores among experimental and control group subjects.
- A comparative study may be undertaken on parents and school teachers to compare their knowledge and attitude towards prevention of worm infestation and a healthy life style.
- A study on knowledge of general public regarding prevention of worm infestation can be conducted.

Conclusion

Since, a very high significant difference was found between the knowledge scores of mothers in urban and rural areas it was concluded that the teaching programme must be implemented to increase the knowledge among mothers in urban and rural areas regarding worm infestation.

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