Effectiveness of Video Assisted Teaching Programme on Worm Infestation among Mothers of Under Five Children

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Abstract

Worm infestation is common in children all over the world. Worms may be of many shapes and sizes, from microscopic "pinworms" to tape-worms" that are several feet long. Most of these worms live in the intestinal tract. The prevalence of intestinal worm infestation in India varies from 5% to 76%, which is similar to that in other developing countries. The objectives of the study were to assess the knowledge regarding worm infestation among the mothers of under- five children before and after video assisted teaching programme, to determine the association between knowledge of mothers regarding worm infestation of children with selected socio demographic and clinical data. A quasi experimental study was conducted to evaluate effectiveness of video assisted teaching programme on worm infestation among the mothers of under -five children in selected wards of Pozhiyoor. The findings revealed that there was a statistically significant difference in the level of knowledge, and there was no significant association with any of the demographic variables. The study concluded that video assisted teaching programme is effective in improving the knowledge level of worm infestation among the mothers of under five children.

Key words: Worm infestation; under five children.

Background

Babies are most often affected by intestinal worms and parasites. It is more often found in tropical and sub tropical areas and children are more prone to worm infection rather than adults **Sitagita(2010)**[1] . Worm infestation is one of the common health problems worldwide especially in children. WHO estimated that about 1400 million people worldwide are infested with at least one type of intestinal worm. The common helminthes found in India are round worm, hookworm, pinworm and tapeworm, commonly acquired orally or percutaneously or both routes. According to a study done by **Krishnan in (2007)** [2], the prevalence of intestinal worms in India varies from 5-76% in different places. In Dakshina Kannada district ascariasis superseded all other helminthes with an incidence of 48.33% worm infestation is the most common problem in children due to its close association with health practices and sanitary conditions

Worm infestation is major problem among children in developing countries due to bad hygienic condition. Worms are parasites that live in our body. These are dangerous because they can multiply rapidly. Worms get into human body by ingestion, skin penetration or when injected by insects. **Boja (2011)**[3]

Need of the Study & Literature Review

Helminthic infestations contribute significantly to global burden of diseases in children, especially in the tropical and subtropical regions. Intestinal worm infestation can result in impaired nutrition and development. Handling food and drinks with unclean hand and dirty fingers is one of the causes how the thread worms enter into the body. Roundworms enter the body through contaminated food and drinking water, the tape worm on the other hand through raw or uncooked meat and also through the fecal matter. **Sikha (2012)**[4]

Soil-transmitted helminthiasis (STH) is a scourge to the health and well-being of infants and pre-school children

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throughout many parts of sub-Saharan Africa. To improve maternal and child health, regular de-worming is recommended and often delivered from mother and child health (MCH) clinics, yet there have been few studies monitoring the progress and impact of interventions on local levels of disease.

Ascariasis causes many intestinal and respiratory symptoms and plays an important role in precipitating protein-energy malnutrition in undernourished children. **Ananthakrishnan.S, Nalini. P (1997)**[5]

Hookworms cause anemia and hypo-proteinaemia. In areas where hookworm infestation is endemic, 90% of pregnant mothers are anemic. Trichurasis as a causative agent of human disease has only recently gained attention. Trichiura can result in severe colitis and significant blood loss. **Hall A, Harton S et-al,(2009)**[6]

Speare. R.,et. Al., (2006)[7] conducted a cross-sectional study on malnutrition among under five year's children in Chandigarh: scarcity in plenty to find out the prevalence in protein energy malnutrition among children under 5 years in 26 slums with 1.5-2lakh population. Three hundred and thirteen children selected by systematic sampling technique and the results shows PEM 62.62% which was higher among boys 68.87% as compared to girls 58.90%. Prevalence of worm infestation on the basis of history was recorded as 35.67% over half (58.4%) of the children were anemic.

A study was conducted to compare intestinal parasitoses between urban and rural children in developing countries and its related factors in Bangladesh. The children of 1-6 years old in the urban and rural areas who had not taken anti-helmenthic drugs in the last 6 months were randomly selected. The results revealed that among the total 52 children, 24 were in urban and 28 were in rural group. Male/female ratio of the rural group was 1:1 and that of the urban group was 1.4:1. None of the rural group used sanitary latrine, whereas everyone in urban group used sanitary latrine. Enterobius vermicularis was observed only in 1 (4%) stool samples of urban children but in rural group it was found in 7 (25%) of the stool samples. Exclusive breast feeding practice of less than 6 months was observed in 20 (83%) children of urban group but in rural group that of less than one year was found in 22 (78%) children. The study concluded that intestinal parasitic infestation is mostly found in rural children. Urban children almost have no intestinal parasitoses. It has the relation with the poor sanitation, low standard of living, less parental income and education, and early weaning **Mamunur R, Saifur R, Abdur R (2011)**[8].

Problem Statement

A study to assess the effectiveness of video assisted teaching programme on worm infestation among mothers of under five children in selected wards of Pozhiyoor, Trivandrum district.

Objectives

To assess the knowledge regarding worm infestation among the mothers of under five children before and after video assisted teaching programme

To determine the association between knowledge of mothers regarding worm infestation of children with selected socio demographic and clinical data.

Hypotheses

H_1:- There is significant association with knowledge among mothers of under five children regarding worm infestation and on selected socio demographic variables.

H_2:- There is a significant difference in creating knowledge after video assisted teaching

Research Methodology

Research Design: Quasi-experimental one group pre-test post-test design.

Setting: The study was conducted in beach ward, Pozhiyoor, Trivandrum district.

Population: In the present study, the population included mothers of under five children in Pozhiyoor

Sample and sample size: The samples included mothers who were in the age group of 20 to 40 years with under- five children. The sample size was 30.

Sampling technique: - The sample was selected through simple random sampling.

Tool: The tool used for data collection was organized in two parts.

Part I: Questionnaire on Socio Demographic and clinical data, 13 items

Part II: Questionnaire to assess the knowledge regarding worm infestation, 35 items.

Reliability & Validity: The developed tool and planned teaching programme along with objectives were sent to 5 experts in the field of Nursing and 2 physicians, their valuable suggestions were incorporated.

The reliability coefficient of the tool was 0.84 which statistically proved that the tool was reliable.

Procedure for Data Collection: Pre-assessment knowledge was done followed by a structured teaching programme and 5 days later a post assessment was done for the same samples. Data analysis was done according to the objectives of the study using descriptive and inferential statistics. Paired 't' test was used to determine the effectiveness of video assisted teaching programme and ANOVA test was used to find out the association of knowledge with selected socio-demographic and clinical variables.

Findings

Section 1: Frequency and percentage distribution of mothers of under five children according to their Socio demographic characteristics

Results revealed that 53 % of mothers belonged to age group of 25- 30 years,

Half 50% of the mothers had single child, 30 % of the mothers had two children, and 20% of the mothers had more than two children. Majority 93.3% of the mothers belonged to Christian religion and 56.7% living in joint family. Regarding educational status of the mothers, most 46.7% of the mothers had high school education, and 96.7% of the mothers were housewife.

Regards the Monthly income 40% of the mothers were earning below Rs.1000 per month, 33.3% of the mothers were earning Rs.1000- 3000, 23.2% of the mothers earning Rs. 3000- 5000 per month while 3.3% of the mothers earning above Rs.5000 per month. Regarding housing and sanitary facilities 70% of the mothers had latrine facility, 100% of the mothers depended on tap water for drinking water.

Regarding Worm infestation 43.3% of under-five children suffered from worm infestation and 46.7% of the mothers of under five children were giving regular de-worming measures and rest of the 53.3% were not giving de-worming measures. With regards to use of foot wear 56.7% of children regularly used foot wear, 40 % of children rarely used footwear, while 3.3% never used foot wear.

Section II Effectiveness of intervention on knowledge regarding video assisted teaching programme

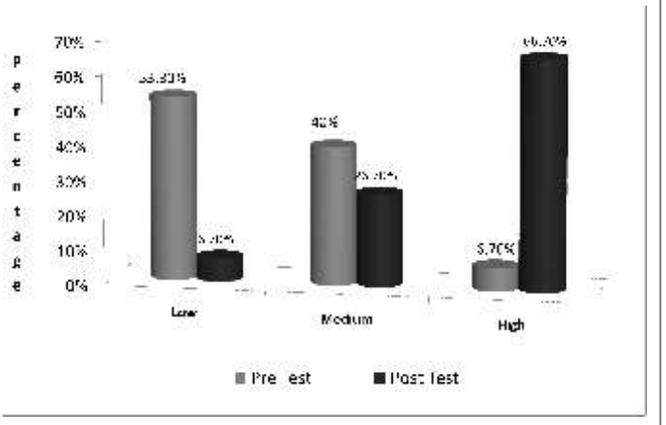

Fig 01: Overall knowledge score regarding worm infestation

Before the intervention the low knowledge score was 53.3%, and after 6.70% in post test, in the medium knowledge score before intervention it was 40% and after intervention the score was 26.70%, in the high knowledge score it was 6.70% but in post test it was 66.70%. The paired' value (9.4, p< 0.01) shows that the increasing knowledge score as a result of the intervention is statistical significant at 0.01 level. Thus the intervention programme was effective in increasing the knowledge.

Section III: Association of pre intervention knowledge with selected socio demographic background variables

The one way ANOVA test (F= 0.15, p>0.05) showed that the variation in knowledge score among different age group was not statistical significant at 0.05 level.

The one way ANOVA test (F= 0.56, p>0.05) showed that the variation in knowledge score based on number of children was not statistical significant at 0.05 level.

The knowledge score based on mothers education was 13.4, 15.4, 22.0 (Primary, High school and College respectively). The one way ANOVA test (F= 6.13, p>0.05) showed that the variation in knowledge score based on mothers education is statistical significant at 0.01 level.

The knowledge score based on income was 14.6, 14.1, 20.6 (< Rs.1000, Rs.1000-3000, > 3000 respectively) .The one way ANOVA test (F= 4.49, p>0.05) showed that the

variation in knowledge score based on is statistical significant at 0.05 level.

The paired 't' test (F= 0.81, p>0.05) showed that the variation in knowledge score based on type of family is not statistical significant at 0.05 level.

The paired 't' test (t= 1.01, p>0.05) showed that the variation in knowledge score based on latrine facility was not significant at 0.05 level.

The paired' test (t= 2.02, p>0.05) showed that the variation in knowledge score based on children ever suffered from worm infestation was not significant at 0.05 level.

The paired' test (t= 1.56, p>0.05) showed that the variation in knowledge score based on children ever suffered from worm infestation was not significant at 0.05 level.

The paired' test (t= 1.15, p>0.05) showed that the variation in knowledge score based on children uses foot wear was not significant at 0.05 level .

Discussion

The present study highlights the effectiveness of video assisted teaching programme on worm infestation among the mothers of under five children

The mean knowledge of the pre-test was 16.0 ± 5.7 and the same was raised as 25.5± 4.1 with the introduction of video assisted teaching program. Similar studies were conducted by Geeta Panwanda (2011) and Sheeja (2009) in different parts of the country which also showed increase in the knowledge scores of school children after implementing structured teaching programme on prevention of worm infestation. One of another study conducted by Nirmala Bai et al (2002) in Bellary among hostel students also reported the same results as there was increase in the post test knowledge scores of children after implementing STP and the resulted peak increase in the score was highly significant.

Conclusion

In most of the cases, intestinal parasitic infestation spreads due to low standards of personal hygiene, poor sanitation, non-usage of toilets (and toilet papers), and an illiterate population. An integrated approach of drug treatment and focussed participatory hygiene education is required to control parasite load. The video assisted teaching programme was found effective in increasing the knowledge on worm infestation among the mothers of under five children.

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Conflicts of Interest: Kerala is highly educated, still people are to be aware of worm infestation and its prevention.

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