

“A Study to Assess the Effectiveness of an Awareness Programme on the Knowledge of School age Children Regarding Prevention of Selected Vector Borne Diseases in a Selected School in Doiwala, Dehradun”

Mr. Naresh Kumar Soni

Associate Prof. Cum Vice Principal Rajasthan College of Nursing

Corresponding Email : soninaresh88@gmail.com

ABSTRACT:

Introduction: A vector is any agent (person, animal or microorganism) that carries and transmits an infectious pathogen into another living organism. The World Health Organization (WHO) states that control and prevention of vector-borne diseases are emphasizing "Integrated Vector Management", which is an approach that looks at the links between health and environment, optimizing benefits to both. The vector borne diseases are includes Babesiosis, Borreliosis, Chikungunya, Crimean congo hemorrhagic fever, Dengue fever, Disease vectors, Malaria, filaria, Rift valley fever, Tick-borne diseases, Tick-borne encephalitis, Viral hemorrhagic fevers, West Nile fever, and Zika virus infection. In this study 4 vector borne disease are selected for prevention point of view these are malaria, filaria dengue fever, and chikungunya.

Material and Method: A Quantitative research approach was used for the study. The study was conducted in selected school in Doiwala block, Dehradun (Uttarakhand). Convenient sampling Technique was used to select the study subjects. Data was collected from 60 school age children by using Demographic Questionnaire and knowledge Questionnaire based on selected vector born disease awareness were used.

Results:The mean posttest knowledge score (25.48±3.91)was apparently higher than that of mean pretest knowledge score (15.52±2.46). Paired sample't' test was performed to compare the means of pretest and posttest knowledge scores. The calculated't' value was 17.24 and p value was 0.001. As the p value was less than 0.05 (probability of type I error is less than 5%), the null hypothesis was rejected and the research hypothesis was accepted. So the mean posttest knowledge score was significantly (p=0.001) higher than that of mean pretest knowledge score.

Conclusion: The significant improvement in knowledge score can be attributed to the awareness programme conducted between pretest and posttest knowledge assessment. Hence it can be concluded that the awareness programme was effective in improving the knowledge score of the participants regarding prevention of vector borne diseases.

Keywords: Assess, Effectiveness, Awareness programme, Knowledge, Vector-borne disease, School age children.

Introduction

In 2000 Vector-borne diseases account for 17% of the estimated global burden of all infectious diseases. Dengue is the world's fastest growing vector-borne disease, with a 30-fold increase in disease incidence over the last 50 years. Southeast Asia is especially affected but dengue also occurs in Africa, where cases are less-often diagnosed. Malaria is a vector-borne disease that is one of the most severe public health problems worldwide. It is a leading cause of death and disease in many developing countries, where young children and pregnant women are the groups most affected. In the world wide WHO estimates that in 2012, there were 207 million cases of malaria and 627,000 people died of malaria

Material and Methods

A Quantitative research approach was used for the study. The main aim of the study was evaluate the effectiveness of an Awareness Programme on prevention from selected vector borne diseases among school age children. The study was conducted in selected school in Doiwala block, Dehradun (Uttarakhand). Convenient sampling Technique was used to select the study subjects. Data was collected from 60 school age children by using Demographic Questionnaire and knowledge Questionnaire based on selected vector born disease awareness were used.

RESULTS

Table No.1: Frequencies and percentage distribution of socio-demographic variables of study participants (N=60)

S. No.	Variables	Frequency	Percentage (%)
1	Gender		
	♣ Male	35	58.3
	♣ Female	25	41.7
2	Type of Family		
	♣ Nuclear	33	55
	♣ Joint	27	45
3	Participation		
	♣ Yes	6	10
	♣ No	54	90
4	Monthly income (Rs.)		
	♣ 5000-10000	4	6.7
	♣ 10001-15000	10	16.7
	♣ 15001-20000	17	28.3
	♣ 20000 above	29	48.3
5	Education of father		
	♣ Primary	4	6.7
	♣ Inter college	26	43.3
	♣ Graduation	30	50
6.	Education of Mother		
	♣ Not attend school	2	3.3
	♣ Primary	4	6.7
	♣ Primary	22	36.7
	♣ Inter college	32	53.3
	♣ Graduation		
7.	Presence of cattle	31	51.7
8.	Presence of water tank	59	98.3
9.	Using Mosquito Repellent	47	78.3

Table No.1 Illustrates the frequency and percentage distribution of socio-demographic variables of study participants. More than half (58.3%) of the subjects were male and 55% lives in nuclear family. The monthly family income of 48.3% participants was

above Rs. 20000. Father of every second participant is a graduate (50%) and 53.3% of mothers were graduate. Half (51.7%) of the households has presence of cattle and more than three fourth (78.3%) were using mosquito repellents. Only one participant reported that they don't have water tank in home and only 10% of the subjects had earlier participated in health awareness programme regarding mosquito prevention.

Table No. 2: Comparison of mean, median, mode and SD of pretest and posttest knowledge score of participants (N=60)

Knowledge score	Mean	SD	Median	Mode	Minimum	Maximum
Pretest	15.52	2.46	16	16	9	21
Posttest	25.48	3.91	26	26	18	32

Table No.2 Mean, median and mode of both pretest and posttest knowledge score was nearly similar (16 for pretest and 26 for posttest) which shows the normal distribution of knowledge score in both pretest and posttest evaluation. Hence the paired sample 't' test was performed to compare the means of pretest and posttest knowledge score.

Table No. 3: Comparison of mean pretest and post test knowledge score regarding prevention of vector borne disease (N=60)

Knowledge score	Mean ± SD	Mean Difference	95% Confidence Interval of Difference		't' value	p value
			Lower	Upper		
Pretest	15.52±2.46	9.96	8.8	11.1	17.24	0.001
Posttest	25.48±3.91					

Table No.3 compares the mean pre-test and post-test knowledge score. The mean post-test knowledge score (25.48±3.91) was apparently higher than that of mean pre-test knowledge score (15.52±2.46). Paired sample 't' test was performed to compare the means of pre-test and post-test knowledge scores.

The calculated 't' value was 17.24 and p value was 0.001. As the p value was less than 0.05 (probability of type I error is less than 5%), the null hypothesis was rejected and the research hypothesis was accepted. So the mean post-test knowledge score was significantly (p=0.001) higher than that of mean pre-test knowledge score.

The significant improvement in knowledge score can be attributed to the awareness programme

conducted between pre-test and post-test knowledge assessment. Hence it can be concluded that the awareness programme was effective in improving the knowledge score of the participants regarding prevention of vector borne diseases.

DISUSSION

An open module was given regarding prevention of selected vector borne disease to the school age children. After intervention knowledge score were increased in post test.

A total of 60 school age children were selected through convenient sampling technique. Baseline data presented show that Most of school age children (98.3%) were in the age group 12-15 years of age . more than half of children (58.3%) were male participants and more than half of children (55%) were belongs to nuclear family. Majority of school age children (90%) were didn't participated in any awareness program me. less than half of school age children's father's monthly income was more than 20,000. Half of the school age children's father (50%) had passed graduation. And more than half of school age children's mother (53.3%) had passed graduation. Most of school age children (51.7%) having cattle in their home. Majority of school age children (98.3%) were having water tank in their home and majority of school age children (78.3%) were using mosquito repellents.

Conclusion

Overall findings of the study revealed that Mean post test knowledge score was apparently higher than the

pre-test knowledge scores and the obtained't' value was 17.24 which was statically significant at $p < 0.05$ level. The Reseacher here emphasized that more research is needed to improve the knowledge and prevention of certain vector borne diseases.

Refrences

1. http://en.wikipedia.org/wiki/Vector_epidemiology)
2. <http://www.vdh.state.va.us/epidemiology/dee/vectorborne/>
3. http://www.ecdc.europa.eu/en/healthtopics/emerging_and_vector-borne_diseases/vector-borne_diseases/pages/index.aspx
4. <http://www.cdc.gov/Features/worldhealthday2014/>
5. <http://www.theguardian.com/global-development-professionals-network/malaria-consortium-partner-zone/world-malaria-report-2013>
6. <http://www.msjonline.org/Volume2Issue1/IJRMS20140224.pdf>
7. Singh S et.al contribution of aedes aegypti breeding in different income group communities of Dehradun, an international journal 5 (1)96-99(2013)
8. Allison Glinka et.al School-Based Health Promotion For Mosquito-Borne Disease Prevention in Children; J Pediatr. 2009 October ; 155 (4): 590–592.

