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RESEARCH ARTICLE

Knowledge and Attitude of Primary School Teachers Towards Prevention of Vector Born Diseases Among Children

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ABSTRACT

A Study was conducted on knowledge and attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers of selected Primary Schools of Gujarat State. The objectives of the study were to assess the knowledge and attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers before and after administration of planned teaching programme and also to find correlation between post-test knowledge and post-test attitude score. Quasi experimental research approach was used with one group pre test and post test design. The investigator used simple random sampling technique for selecting the 40 samples. A planned teaching programme on prevention and control of vector borne diseases was prepared for the samples. A structured knowledge questionnaire and likert's attitude scale were prepared to assess the knowledge and the attitude of the samples. Descriptive and inferential statistics were used to analyze the data. The mean pre test knowledge score was 22.35 and the mean post test knowledge score was 37.4. The mean pre test attitude score was 89.6 and the mean post test attitude score was 118.7. Significance of the difference between pre test and post test knowledge and attitude was statistically tested using paired 't' test and it was found significant at 0.05 level. Also there is significant positive correlation between the post—test knowledge and attitude score(r=0.32). There was increase in the knowledge and change in attitude of Primary School Teachers after the administration of the Planned Teaching Programme on Prevention and Control of Vector Borne Diseases. Hence it was concluded that Planned Teaching Programme was effective in improving the knowledge and attitude of Primary School Teachers of selected Primary Schools of Gujarat State.

Introduction:

More than half the world's population is at risk from diseases such as malaria, dengue, leishmaniasis, lyme disease, schistosomiasis, and yellow fever, carried by mosquitoes, flies, ticks, water snails and other vectors. Every year, more than one billion people are infected and more than one million die from vector-borne diseases. On this World Health Day -7th April, WHO is highlighting the serious and increasing threat of vector-borne diseases with the slogan "Small bite, big threat". *(*World Health Day 2014: Preventing vector-borne diseases, Geneva) Now a day the major health problems in India are more in rural as well as urban areas. In rural areas mosquito borne diseases are more due to unhygienic practices. Worldwide malaria is a leading cause of premature mortality, particularly in children under the age of five with around 2 million deaths annually. According to the centres for disease control, during rainy season mosquitoes breeds in stagnant water.

Water storage, containers for drinking, washing, bathing, is the primary source of larval accounting for 90% of the total breeding place. Important breeding place of mosquitoes is in slums, and open drainage, waste disposal.

The people living in the hereby area are easily become the victims of vector – borne diseases. Recurrent outbreaks of mosquito borne diseases are malaria, dengue fever, chikungunya and japanese encephalitis. These are major diseases which can be transmitted by mosquitoes. (Gubler DJ, Clark G.G, "The emergency of global health problem emergency infection diseases". CAB International 1995)

The objectives of the study were to assess the knowledge and attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers before and after administration of planned teaching programme and also to find correlation between post-test knowledge and post-test attitude score.

Statement of The Problem:

"A study to assess the effectiveness of Planned Teaching Programme on Knowledge and Attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers of selected Primary Schools of Gujarat State"

Hypothesis:

H_{01}: There will be no significant difference between pre-test and mean pre-test knowledge score of the samples after administration of planned teaching programme on prevention and control of vector borne diseases as evident from the structure knowledge questionnaire at 0.05 level.

H_{02}: There will be no significant difference between pre-test and mean pre-test attitude score of the samples after administration of planned teaching programme on prevention and control of vector borne diseases as evident from the five point Likert's Rating scale at 0.05 level.

H_{03}: There will be no correlation between post-test knowledge score and attitude score of prevention and control of vector borne diseases among primary school teachers.

Methodology

Quasi experimental research approach used with one group pre test and post test design. The study was conducted in the selected primary schools of Gujarat State. The investigator used simple random sampling technique for selecting the 40 samples. A planned teaching programme on prevention and control of vector borne diseases was prepared for the samples.

A structured knowledge questionnaire and likert's attitude scale were prepared to assess the knowledge and the attitude of the samples. Content validity of tools and planned teaching programme was done by the experts. Collected data was analyzed by using descriptive and inferential statistics in terms of frequencies, percentage, mean, standard deviation, and 't'test.

Results:

The percentage gain in areas as per area was introduction about vector borne diseases (37%), malaria (19.66%), dengue(38.5%), chikungunya(53.75%), filaria(31.75%), kala-azar(51.75%), japanese encephalitis (23.25%) and vector management(47.42%). So the investigator concluded that there was significance increase in the mean post-test knowledge score as compared to mean pre-test knowledge score in all areas after Planned Teaching Programme on Prevention & Control of Vector Borne Diseases which is statistically proved.

The calculated 't' value is more than the table value. Hence the Planned Teaching Programme was effective and' null hypothesis was rejected and the research hypothesis was accepted.

The percentage gain in areas as per area was accordingly introduction(21.8%), malaria(20.92%), dengue(24.84%), chikungunya(22.34%), filaria(27%), kala-azar(21.7%), Japanese encephalitis(21.7%) and vector management(32.93%). So the investigator concluded that there was significance increase in the mean post-test knowledge score as compared to mean pre-test knowledge score in all areas after planned teaching programme on prevention & control of vector borne diseases which is statistically proved.

The calculated' value is 64.67 at 39 degree of freedom with 0.05 level of significance. The calculated 't' value is more than the table value. Hence the planned teaching programme was effective and null hypothesis was rejected and the research hypothesis was accepted.

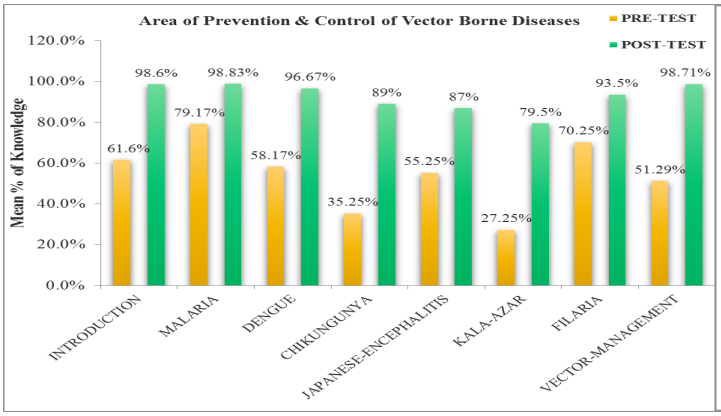
Thus the increase mean knowledge score in the post test phase indicates that the planned teaching programme was effective. Thus the investigator concluded that there is significant positive correlation between the knowledge and attitude of the primary school teachers of the selected primary schools of Gujarat State. It significant that if the knowledge of the samples increases then the attitude of samples is also tends to increase. Thus the null hypothesis H_{03} was rejected and the research hypothesis H_3 was accepted.

Table – 1

Area wise Mean, Mean Percentage, Percentage Gain, Mean Difference, Standard Deviation (SD) of Pre-Test and Post-Test Knowledge Scores of samples on Prevention & Control of Vector Borne Diseases.

[N=40]

Area	Max. Score	Pre-Test Score			Post-Test Score			Mean % Gain	Mean Difference
		Mean Score	Mean %	S.D	Mean Score	Mean %	S.D		
Introduction	5	3.08	61.6	0.69	4.93	98.6	0.81	37	1.85
Malaria	6	4.75	79.17	1.06	5.93	98.83	0.27	19.66	1.18
Dengue	6	3.49	58.17	0.91	5.74	96.67	0.60	38.5	2.25
Chikungunya	4	1.41	35.25	0.93	3.56	89	0.60	53.75	2.15
Filaria	4	2.21	55.25	0.79	3.48	87	0.55	31.75	1.27
Kala-azar	4	1.11	27.75	0.84	3.18	79.5	0.75	51.75	2.07
JE	4	2.81	70.25	0.65	3.74	93.5	0.52	23.25	0.93
Vector management	7	3.59	51.29	0.84	6.91	98.71	0.27	47.42	3.32
TOTAL	**40**	**22.35**			**37.4**				**15.05**



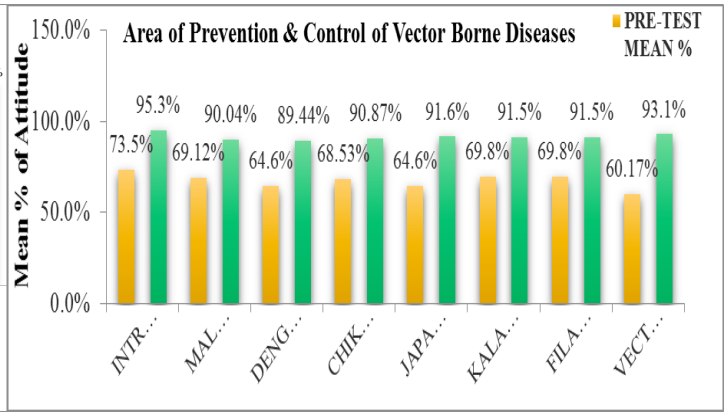


TABLE-2

Mean Score, Mean Difference, SD &'t' Value of pre & post test Attitude Score of samples **(N=40)**

Attitude	Mean	Mean Difference	SD	SE	Calculated 't' test	Tabulated 't' test
pre-test	89.6	29.1	2.49	0.45	64.67	2.03
post – test	118.7		1.36			

Note: *t= p < 0.05 df= 39

Conclusion:

The study was conducted to assess the effectiveness of Planned Teaching Programme on Knowledge and Attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers of selected Primary Schools of Gujarat State.The findings indicated that planned teaching programme was an effective strategy to increase the knowledge and attitude of respondents. Primary School Teachers gained significant increase in knowledge and change in attitude which shows that the planned teaching was effective. The Planned teaching programme on Prevention and Control of Vector Borne Diseases was acceptable and useful method of teaching for primary school teachers.

Recommendations:

The following recommendations are made on the basis of the findings of present study.

1. A similar study can be replicated in large samples and in all districts of Gujarat State or other State so that findings can be generalized for a large population.
2. A descriptive study can be conducted to assess the knowledge and attitude of people regarding prevention and control of vector borne diseases.
3. A study can be conducted to determine the existing role of nursing personnel regarding education of the community regarding prevention and control of vector borne diseases.
4. A comparative study can be carried out between urban and rural population to identify the difference in terms of knowledge and attitude regarding prevention and control of vector borne diseases.
5. A study can be conducted to assess effectiveness of training regarding prevention and control of vector borne diseases among health staff.

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