



KNOWLEDGE AND PRACTICES REGARDING MOSQUITO BORNE DISEASE AMONG PEOPLE OF AN URBAN AREA IN KALABURGI, KARNATAKA

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ABSTRACT

Introduction: The mosquito borne diseases poses an immense public health concern and also a growing urban problem. For developing a suitable and effective health education strategy, it is inevitable to understand the level of knowledge of the community, and practices regarding mosquito borne diseases.

Methods: The present study was carried out in an urban field practice area of M. R. Medical College, Kalaburagi, Karnataka. A total of 247 houses were selected for study by systematic random sampling. Data was collected using a semi-structured questionnaire during transmission season of vector borne diseases.

Results: Out of the 247 studied population, majority 171(69.23%) knew that malaria is transmitted by mosquito followed by 68(27.53%) Filarial, 22(8.91%) dengue and 37 (14.98 %) Chikungunya. 85.02% participants answered dirty stagnant water as mosquito breeding place. Regarding source of knowledge majority 153(61.94%) was from Television followed by 135(54.66%) from Health care providers

Conclusion: Community participation in terms of knowledge and practice regarding vector control is deficient at places & needs to be addressed for effective mosquito control.

Key words: Mosquito borne diseases, Knowledge, Practice, Malaria

INTRODUCTION

Mosquito-borne diseases had always and also will remain as an important public health problem. Every year there are more than one billion cases and over one million deaths from vector-borne diseases globally.¹ Malaria causes the most number of deaths among the vector-borne diseases. WHO estimated that there were 627,000 deaths and 207 million cases in 2012, mainly in Sub-Saharan Africa followed by South East Asia.² Karnataka is one state with high prevalence of mosquito-borne diseases *viz.*, malaria, dengue and chikungunya. Morbidity due to malaria and dengue are very high in the recent years, owing to rapid urbanization and this has brought dreaded diseases like malaria.³ Approximately 80% of India's population lives in

malaria risk areas.⁴ Once considered strictly a rural problem, malaria have increased in urban areas.^{5, 6}

In spite of mass communication and educational approaches, community participation is far below expectation. Community participation in turn depends upon People's knowledge, awareness and attitude towards the disease.⁷ Several socioeconomic studies in various countries indicate variation in knowledge and practice related to mosquito-borne diseases.^{8, 9, 10} Despite of so many efforts to control malaria, dengue and chikungunya, these diseases are still having a huge impact on health, wellbeing and economy of the people. Hence the key success for mosquito borne diseases control depends not only on services provided by Health Authority but also on knowledge on clinical mani-

festation, awareness and early care seeking behavior of the community. There is a need to know existing knowledge and practice regarding mosquito borne diseases and its control in community. Hence the present study was conducted to access the knowledge and practices regarding commonly occurring mosquito borne diseases among the residents of Rajapur which is urban field practice area of community medicine department of M. R. Medical College, Kalaburagi, Karnataka

MATERIALS AND METHODS

The present study was carried out in an urban field practice area Rajapur of Community Medicine department of M. R. Medical College, Kalaburagi, Karnataka during the period of June to August 2015. A sample of 247 was calculated based on the expected prevalence of awareness that mosquitoes transmit malaria as reported by 62% participants from the findings of study done by Patel B et al¹¹ (Taking 62% of people in the households as having good knowledge regarding vector borne diseases (p), the sample size was calculated using the formula $Z=4pq/l^2$ (where $p=62\%$, $q=100-p$ and $d=$ allowable error of 10% of p). Data was collected using a semi-structured questionnaire by house to house visits for 3 months during transmission season of vector borne diseases. Using systematic random sampling technique the sample houses were taken from all 4 wards of Rajapur area. The selected houses were visited, any one person in the household above the age of 18 years, giving consent, was randomly selected and interviewed. If the household was locked or the eligible persons were unavailable, the immediate next house was chosen for the study. Interview was by the questionnaire, prepared after pilot testing, which included the questions on knowledge, and practices. The data was entered in Ms Excel sheet and analyzed using SPSS and results were interpreted as percentages.

RESULTS

As shown in Table 1 that out of the 247 studied population, majority 171(69.23%) knew that malaria is transmitted by mosquito followed by 68(27.53%) Filarial, 22(8.91%) dengue and 37 (14.98 %) Chikungunya.

It is evident from Table 2 that majority 143(57.89%) answered limb swelling as the most common symptom associated with mosquito bite followed by 92(37.25%) fever and chills , 32(12.96%) Headache and 11(4.45%) body ache.

As shown in Table 3 that out of the 247 studied population, majority 210(85.02%) knew that mos-

quitoes breed in Dirty stagnant water followed by 36(14.58%) in Artificial collection of water/water storage tanks.

It is seen in Table 4 that distribution of participants according to their source of knowledge regarding mosquito borne disease shows that majority 153(61.94%) was from Television followed by 135(54.66%) from Health care providers, 27(10.93%) from Friends/relatives and least 12(4.86%) by Newspaper /radio.

Table 1: Participants' knowledge regarding diseases transmitted by mosquitoes

Knowledge	Participants (%)
Malaria	171 (69.23)
Filarial	68 (27.53)
Dengue	22 (8.91)
Chikungunya	37 (14.98)
Other	27 (10.93)
Don't know	8 (3.24)

Table 2: Participants' knowledge regarding signs and symptoms of mosquito borne disease

Signs/symptoms	Participants (%)
Limb swelling	143 (57.89)
Fever with chills	92 (37.25)
Headache	32 (12.96)
Body ache	11 (4.45)
Nausea/vomiting	8 (3.24)
Don't know	2 (0.81)

Table 3: Distribution of participants according to knowledge regarding breeding places

Knowledge regarding breeding place	Participants(%)
Dirty stagnant water	210 (85.02)
Artificial collection of water/water storage tanks	36 (14.58)
Don't know	01 (0.40)
Total	247 (100)

Table 4: Source of knowledge regarding mosquito borne disease

Source of knowledge	Participants (%)
Friends/relatives	27 (10.93)
Health care providers	135 (54.66)
Newspaper /radio	12 (4.86)
Television	153 (61.94)

Table 5: Methods used by study participants for protection against mosquito bites

Mosquito Protection Method	Participants (%)
Screening of windows and doors	35 (14.17)
Mosquito nets	76 (30.77)
Repellents	142 (57.49)
Insecticidal sprays	15 (6.07)
None	2 (0.81)

As seen in Table 5 that out of the 247 studied population, majority 142(57.49%) used mosquito repellants for protection against mosquito bites followed by 76(30.77%) used mosquito nets, 35(14.17%) screening of doors and windows.

DISCUSSION

A total of 247 houses were studied in an urban health centre Rajapur. The findings of the study showed that majority 171(69.23%) knew that malaria is transmitted by mosquito followed by 68(27.53%) Filarial and 08(3.24%) did not know any diseases that are transmitted by mosquito. In the study participants had good knowledge that mosquito bite is one of the important causes for malaria transmission which is similar to study done by Niraj Pandit et al¹². Majority of the participants in our study i.e. 143(57.89%) answered limb swelling as the most common symptom associated with mosquito bite followed by 92(37.25%) fever and chills, 32(12.96%) Headache and 11(4.45%) body ache which is in contrast to study done by Vala Mayur et al¹³. The commonest reason quoted by the participants was limb swelling, which suggests their lack of knowledge about the symptoms. The study also revealed that regarding knowledge about breeding places of mosquitoes, the participants had adequate knowledge, where 210 (85.02%) stated dirty stagnant water as commonest breeding place followed by 36(14.58%) in Artificial collection of water/water storage tanks which is similar to study done by Nitin Joseph et al¹⁴. The study reported about the source of information showing that 153(61.94%) of the individuals were aware about mosquito borne diseases and their control and prevention through television which is similar to study done by Kumari et al¹⁵. In the study majority 142(57.49%) used mosquito repellants for protection against mosquito bites followed by 76(30.77%) used mosquito nets, 35(14.17%) screening of doors and windows which is similar to study done by Amul B. Patel¹¹.

CONCLUSION

Community participation in terms of knowledge and practice regarding vector control is deficient at places & needs to be addressed for effective mosquito control. Intensified efforts should be made towards creating public awareness and Strengthening personal protective and community measures to prevent mosquito borne diseases.

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