ORIGINAL RESEARCH PAPER

Volume-7 | Issue-4 | April-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A STUDY ON KNOWLEDGE , AWARENESS AND PREVENTIVE PRACTICES ON MOSQUITO BORNE DISEASES IN URBAN SLUMS UNDER URBAN HEALTH TRAINING CENTRE OF GUWAHATI

Community Medicine

Dr (Mrs) Kanika K Baruah Associate Professor , Department of Community Medicine , Gauhati Medical College

Dr Abhishek Gope * Demonstrator ,Department of Community Medicine , Silchar Medical College. *Corresponding Author

ABSTRACT

Introduction : Mosquito borne diseases of public health importance are complex and their occurrence depends on the interaction of various biological , ecological , social and economic factors .

Materials and methods : Community based cross sectional study was done in the urban slums under Urban Health Training Centre , Guwahati . Data was collected by using a pretested and prestructured schedule comprising both open and close ended questions . Data analysis was done by using INSTAT graph pad .

Results : The awareness level about malaria and dengue were 98.57% and 90% respectively . Mosquito bite was perceived as the cause of malaria and dengue by majority of the respondents . Stagnant drain and artificial water collections were considered as the breeding place of mosquitoes by majority of respondents . 76% and 56.29 % of the respondents used mosquito nets and repellents to prevent mosquito borne diseases .

KEYWORDS

INTRODUCTION

Mosquito borne diseases of public health importance are complex and their occurrence depends on the interaction of various biological, ecological, social and economic factors. Though several measures for the prevention and control are followed, yet the problem density is too high with 300-500 million cases and 1.1-2.7 million deaths due to malaria alone, globally per year.[1] An estimated 96 million apparent dengue infections were reported globally in 2010. Asia bears 70% of this burden, whereas India alone contributed 34% of the global total.[2] At present, official figures for malaria in India, available at the Directorate of National Vector Borne Disease Control Programme (NVBDCP) indicate 0.7-1.6 million confirmed cases and 400-1000 deaths annually.[1]

Inspite of mass communication and educational approaches, community participation is far below expectation, which, in turn, depends on people's awareness and also the practices they follow to prevent mosquito breeding or bites at home.

Several studies in different countries including India indicate variations in knowledge and practices related to mosquito borne diseases.[3] The increasing incidence of mosquito borne diseases in recent years warrants a proactive approach for their prevention. Knowledge and practices of community for prevention are important aspects to assess the need of community based interventions. In the same context, elimination of the breeding sites from the human habitat is the most effective way to manage mosquito borne diseases. Hence, social and behavioural interventions at household level are thought to be the most viable measures for these diseases.[4],[5] The use of personal protective measures (PPM), such as mats, bednets, screening, repellants, liquid vaporizers, mosquito coil, etc., have been advocated as an effective tool in control of mosquito borne diseases.[6]

Mosquito borne diseases have been posing a threat in the slums and city of Guwahati too, just like other places in Assam. Different studies were conducted in some of the areas with equivocal results. However, socially acceptable measures by the local government, in collaboration with other relevant sectors, and social mobilization for full improvement of the community are crucial. Thus, a need was felt to assess the existing knowledge and preventive practices of the adult residents of the slum areas in Guwahati regarding mosquito borne diseases, and a study was conducted with the same objective, which is expected to be helpful in designing evidence based effective prevention and control strategies.

MATERIALS AND METHODS

A community based cross sectional study was conducted in the slums of Hafiznagar and Islampur in Guwahati,Assam.The study was conducted from 1ST June to 30th September 2016 . 350 households were purposively selected from the slum areas and from each household , one adult respondent was selected . In case no adult respondent was found in the household , the next household was selected . Data was collected by using a pretested and prestructured schedule comprising both open ended and close ended questions . Data analysis was done by INSTAT graph pad and the findings were represented by tables and graphs .

RESULTS

TABLE 1 : DISTRIBUTION OF RESPONDENTS ACCORDING TO SOCIO DEMOGRAPHIC PROFILE

	Number	Percentage
Sex		
Male	156	44.57
Female	194	55.43
Age		
18-30	128	36.57
31-40	133	38
41-50	65	18.57
51-60	24	6.86
Educational status		
Illiterate	94	26.86
Primary school	105	30
Middle school	54	15.43
High school	45	12.86
Higher secondary	43	12.26
Graduate	9	2.59

TABLE 2 : TABLE SHOWING KNOWLEDGE AND AWARENESS ABOUT MALARIA

	Numbers	Percentage
Awareness about malaria		
Aware	345	98.57
Unaware	5	1.43
*Source of information (n=345) **		
TV	300	86.97
Radio	113	32.75
Newspaper	110	31.88
Health care providers	25	7.25
Friends and relatives	126	36.52

*Knowledge about causes of malaria (n=345)**		
Mosquito	331	95.94
Malarial parasite	10	2.9
Others	9	2.61
Dont know	4	1.16
*Symptoms of malaria (n=345) **		
Fever and chills	331	95.94
Headache	80	23.19
Vomiting	31	8.99
Weakness	73	21.16
Don't know	14	4.06

TABLE 3: TABLE SHOWING KNOWLEDGE AND AWARENESS ABOUT DENGUE

	Numbers	Percentage
Awareness about dengue		
Aware	315	90
Unaware	35	10
*Source of information (n = 315)**		
TV	300	95.24
Radio	113	35.87
Newspapers	110	34.92
Health care providers	25	7.94
Friends and relatives	126	40
*Knowledge about causes of dengue (n=315) **		
Mosquito	300	95.24
Dengue virus	9	2.86
Others	16	5.08
Dont know	6	1.90
*Symptoms of dengue (n=315) **		
Fever with chills	299	94.92
Headache	124	39.37
Weakness	35	11.11
Joint pains	114	36.19
Rash	17	5.40
Don't know	16	5.08

TABLE 4 : TABLE SHOWING KNOWLEDGE ABOUT BREEDING PLACES OF MOSQUITOES AND PREVENTIVE PRACTICES

	Numbers	Percentage
*Breeding places**		
Stagnant Clean water	32	9.14
Stagnant Polluted water	229	65.43
Artificial water collections	148	42.29
Vegetation	5	1.48
Garbage	73	20.86
Dont know	56	16
*Preventive practices**		
Mosquito nets	266	76
Impregnated bed nets	19	5.43
Repellents	197	56.29
Screening of windows/ doors	6	1.71
Protective clothing	13	3.71
Don't use any measures	25	7.14

*Multiple response

DISCUSSION :

The present study found the awareness level about malaria and dengue among the respondents to be satisfactory and high which were 98.57% and 90% respectively . Study by Anand T et al [7] showed that awareness about malaria and dengue among the respondents were 58% and 65% respectively . Meanwhile , a study by Bortane et al[6] showed that the awareness about malaria and dengue were 57% and 19% respectively . The current study revealed that television was the most common source of information about MBDs among the respondents followed by radio and newspapers . This is consistent with the study finding by De M et al[8] . Contrary to the present study finding , Madne et al[9] found that health care providers played a vital role in contributing to the awareness about MBD s whereas Anand T et al [8] showed that family and friends were the most important source of information . The causation of MBDs as perceived by the study population were seen to be mosquito bite by majority of the respondents (97.97% in malaria ; 96.51% in dengue) and our study finding was consistent with that of Pandit N et al[10] and De M et al [8] . The knowledge about breeding places of mosquitoes was found to be fairly good in our study . While 65% considered stagnant drain / polluted water to be the breeding place of mosquitoes , 42.29% of the respondents thought artificial water collections as the breeding place . Drains / stagnant polluted water was considered as the breeding place by 71.5% , 29% and 17.5% in study by De M et al , Anand T et al [7] and Madne et al[9] respectively .

The present study also highlights that around 95% of the respondents had knowledge that malaria and dengue can present with fever . A study conducted by Joshi et al [11] in Nepal found that 86% of respondents have heard about malaria, but only 50% responded 'fever with chills' as a sign and symptom of malaria and 73% responded that mosquito bite causes its transmission.

Among the personal protective measures , mosquito nets were used by 76% followed by repellents (56%) . De M et al [8] showed that repellents were used by 47% respondents followed by mosquito nets . Madne et al showed that 24% respondents used mosquito nets while 23% used smoke .

CONCLUSION

Though the knowledge and preventive practices about the mosquito borne diseases were found as satisfactory , the preventive practices still need to be intensified with an aim to increase the coverage .

Television being found to be the most effective medium of communication in the present study should be targeted for IEC activities .

REFERENCES

1) WHO Expert Committee on Malaria , 20th Report , Geneva , Switzerland , 2010
2) Bhatt S , Yething PW , Brady OJ , Messina JP , Farlow AW , Moyes CL , et al . The Global Distribution and Burden of Dengue , Nature 2013; 496 : 504-7
3) Kinunghi SM , Mashauri F , Mwanga JR , Nnko SE , Kaatano GM , Maima R ,et al . Knowledge , Attitudes and Practices about Malaria among communities : Comparing epidemic and non epidemic prone communities
4) Gabler DJ , Aedes Aegypti and Aedes Aegypti Borne Disease Control in the 1990s Top down or Bottom up . Charles Franklin Craig Lecture . Am J Trop Med Hyg 1986 ; 40 : 571- 8
5) Leontani E , Gil E , Kundall C , Clark GG . Effect on a Community based Aedes Aegypti Control Programme on mosquito larval production sites in El Progresso , Honduras . Trans R Soc Trop Med Hyg 1993 ; 87 : 267 – 71
6) Boratne A , Dutta S , Singh Z , Purty A , Jayanti V , Surthilee V . Attitude and Practices Regarding Mosquito Borne Diseases and Socio Demographic Determinants for Use of Personal Protection Methods among adults in Coastal Pondicherry , Indian J Medical Specialities 2010 ; 1 : 91 – 6
7) Anand T, Kumar R, Saini V, Meena GS, Ingle GK. Knowledge and use of personal protective measures against mosquito borne diseases in a resettlement colony of Delhi. Ann Med Health Sci Res 2014;4:227-32.
8) De M , Mukherjee D , Paul S , Biswas R , Halder A . A study on knowledge and practices regarding malaria among adult urban population of Siliguri . IOSR Journal of Dental and Medical sciences , 14 (9) ; 2015 Sep :33- 36
9) Madne G, Jindal AK, Patel BB, Sharma R, Kant R. Knowledge and practices concerning malaria in rural community of Pune district. Med J DY Patil Univ 2014;7:450-3.
10) Pandit N, Patel Y, Bhavsar B. Awareness and practice about preventive method against mosquito bite in Gujarat. Health line 2010; 1:16-20.
11) Joshi AB , Banjara MR . Malaria related knowledge , Practices and Behaviour of people in Nepal , J Vector borne diseases 2008 ; 45 : 44 – 50