

Health Seeking Behavior Among the Fever Cases During an Outbreak of Malaria in Assam

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INTRODUCTION

Malaria is a major public health problem with an incidence of 300-500 million cases causing 1.5-2.7 million deaths annually (WHO, 1996). Knowledge, community perception regarding causation and spread of disease, its prevention and health seeking behavior of the public during the morbidity episodes especially fever (Aggarwal et al., 2001) and outbreak situation are some important facets in the control strategy of malaria. An outbreak causes panic reaction among the people and influences their health seeking behavior due to some factors inherently associated with the community. During the outbreak patient load increases in the public health facility and it is further accentuated by panic reaction. Some health seeking behavior may adversely affect the course of ongoing outbreak by causing inadequate treatment and failure, drug toxicity, drug resistance and development of complications from malaria. Further inadequate treatment increases the reservoir of parasite in the community. The present study was done to have an insight into the fever cases attending the out patient department (OPD) of a primary health centre (PHC) and State Dispensary of Nagaon district for seeking medical help regarding knowledge and treatment-seeking behavior.

MATERIALS AND METHODS

The present study was carried out in the month of June 2002 during malaria out break in two malarious areas of Nagaon district, Assam. A total of 184 acute febrile patients of the district, seeking medical treatment was included in the study. Information regarding knowledge, health-seeking behavior of either the patients or any adult member accompanying the patients in case of minor along with other relevant data was recorded in a predesigned proforma. Peripheral blood smear as thick and thin blood film were prepared and stained by J.S.B.-1 and J.S.B.-2 stain for microscopical examination.

RESULTS

The present study revealed that a major fraction (95.7%) of the study subjects were aware about the outbreak of malaria. Out of 184, 63.0% and 32.6% recognized fever and fever with chill respectively as of malaria symptoms. Only 57.6% knew that malaria is caused by the bite of the mosquito. 64.1% out of 184 used mosquito net. About 60.3% of the patients directly came to the public health facility, seeking remedy and 16.3% of patients treated themselves by taking drugs from local pharmacy and 23.4% sought treatment from untrained village level practitioners (UVLP) and traditional practitioners (Table 1).

Table 1: Knowledge and health seeking behavior of acute febrile patients attending the hospital.

Parameters	No (%)
i. FCT in OPD:	184 (100.0)
ii. Aware About Malaria:	176 (95.7)
iii. Symptoms of Malaria:	
Malaria causes fever	116(63.0)
Malaria causes fever with chill	60(32.6)
Do not know	8(4.4)
iv. Cause of the Disease:	
By the bite of mosquito	106(57.6)
Others	70(38.0)
v. Use of Mosquito net to Prevent Mosquito Bite:	
Yes	118(64.1)
No	66(35.9)
vi. Seek Treatment From:	
Public health facility	111(60.3)
Local pharmacy	30(16.3)
UVLP	36(19.6)
Traditional	7(3.8)

FCT: Fever cases treated; OPD: Out patient department
UVLP: Untrained village level practitioner

The Table 2 showed an overall SPR of about 33.2% and the slide positive rate in relation to age, sex and community. Higher SPR was observed in the age group of >10-15 years, female subjects and in the tea garden workers community followed by tribal population. The

Table 2: Health seeking behavior and SPR in relation to age, sex and community

Parameter	Total	Age (in years)					Sex		Community		
		Upto1	>1-5	>5-10	>10-15	>15	Male	Female	General	ST	TGW
HSB:											
PHF	111	1	9	24	13	64	53	58	65	28	18
OTH	73	4	22	16	10	21	31	42	20	39	14
Total	184	5	31	40	23	85	84	100	85	67	32
FCT											
SPR	33.2	0.0	35.5	35.0	43.5	30.5	32.1	34.0	29.4	35.8	37.5

HSB: Health seeking behavior; PHF: Public health facility; OTH: Others (local pharmacy, UVLP and traditional)

FCT: Fever Cases treated

SPR: Slide Positive Rate

ST: Scheduled tribes; TGW: Tea garden worker community

present study showed distinct variation in the selection of health facility in different age groups. Use of public health facility was more commonly noticed in the age group > 15 years, whereas use of other health facilities was more commonly seen in the age group < 1 year. Male person used more public health facility than the female. On community wise analysis, a significantly higher proportion of people in the general category sought health care from public health facility. Proportion of malaria positive cases visiting the public health facility (32.4%) and other mode of treatment facility including traditional healers (34.3%) were almost similar.

DISCUSSION

The present study revealed that a major fraction (95.7%) of the study subjects were aware about existence of malaria infection. This finding is higher than some earlier studies (Aggarwal et al., 2001; Komolratanakul et al., 1992) done elsewhere. This is perhaps due to outbreak situation where people become more aware. Out of 176 subjects 116 (63.0%) and 60 (32.6%) associated fever and fever with chill respectively as malarial symptoms. The observed knowledge about malarial symptoms among the subjects may be due to endemicity of malaria in the study areas. One hundred and six out of 184 (57.6%) associated the cause of the disease to the bite of the mosquitoes. Our finding corroborates with the earlier study (Munguti, 1998) where 258 (58.5%) out of 463 households associated the cause of the disease to the mosquito. Limited knowledge regarding aetiology and poor socioeconomic condition of the study subjects may be some factors responsible for low (64.1%)

use of the mosquito net. The non-use habit of mosquito net may lead to high prevalence of malaria among the study subjects as revealed by earlier study also (Dutta et al., 1989). However, by tradition mosquito net use pattern is more in NE region of India (Prakash et al., 2001).

Utility of the public health facility by the study subjects during their sufferings from any kind of fever was seemed to be poor 111 (60.3%). The remaining portion sought their treatment from places where there is possibility of inappropriate use of the drug by the patient. This may lead to treatment failure, drug toxicity and drug resistance creating a problem for malaria control programme (Komolratanakul et al., 1992). The proportion of malaria positive cases among the persons seeking treatment from such places was similar. Perhaps this becomes a major reservoir in the community because of improper treatment or radical cure. Though infant parasitaemia is an indicator of endemicity and the intensity of malaria transmission in the community (Sharma et al., 1996), yet SPR in the present study was found to be nil in children below 1 year. This may be due to passive maternal immunity, bed net coverage or stay in home where there is low risk of malaria transmission (Outhone et al., 2000). Previous study done by Malhotra et al. also reported that children up to 1-year age group are less prone to malaria than the higher age groups. More pronounced malaria infection was observed in the age group of 11-20 years. This finding corroborates with an early study (Dutta and Bhattacharyya, 1990). This may also be due to high mobility and out door activities like playing, activity in the forest etc. that exposes themselves to the vectors with greater chance of acquiring

the disease. Community related variation of the prevalence of SPR observed in the present study might be due to diverse traditionally built housing pattern, socioeconomic behaviors and cultural practices, which influence the various mosquito control programs under National Anti Malaria Programme (Dutta et al., 1999).

Health education to the community regarding aetiology, preventive measures and the participation in terms of symptoms identification and self-reporting to the public health facility and the modification of existing health seeking behavior are some important steps towards the control of the disease.

KEYWORDS Health-seeking Behavior. Diseases Assam

ABSTRACT During outbreak of diseases like malaria people have different perspective about health seeking behavior at community level due to increased consciousness and panic. A study was conducted among acute febrile patients attending the hospital to have an insight into knowledge and health seeking behavior of the subjects during an out break situation in Nagaon district of Assam with predesigned questionnaire and concurrent clinical and blood examination. A major fraction (95.7%) of the study subjects became aware about the occurrence of malaria. Out of them, 63.0% and 32.6% considered fever and fever with chill respectively as malaria symptoms. However, most of them did not know about the cause and transmission of the disease. About 60.3% of patients directly came to the public health facility, seeking remedy, 16.3% treated themselves by taking drugs from local pharmacy and 23.4% sought treatment from UVLP (untrained village level practitioner) and traditional practitioners. The overall SPR (slide positive rate) was 33.2% with higher percentage noticed in the age group of 10-15 years. Female subjects and tea garden workers community followed by tribal population had more SPR. Almost equal proportion of malaria positive cases (slide positive) visited the public health facility (32.4%) and other mode of health facility (34.3%) for their remedy. The study indicated the necessity of health education to the community regarding the transmission, preventive measures for malaria and about the symptom

identification and self-reporting to the public health facility.

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