

Awareness Regarding Malaria among Tharu Community People of Bharatpur – 17, Chitwan

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Abstract: Malaria is a life threatening disease that is caused due to plasmodium parasites, which are transmitted to the people through a bite of female anopheles mosquito. Awareness regarding malaria is important for the utilization and preventive measures in daily life. This study aimed to find out the awareness regarding malaria among Tharu community people. Descriptive, cross-sectional research design was used in the study. A total of 147, Tharu community people were selected by using probability, simple random sampling technique. Data was collected by using structured interview schedule. The finding of the study revealed that, more than half 58.5% of community people belonged to the age group 20-35 years, 72.8% were female and 83.0% were literate. Regarding awareness, 34.0 % of the respondent had good level of awareness, 21.1% had satisfactory and 44.9% had poor level of awareness. In conclusion, nearly half of the Tharu community people were not aware about malaria. Hence, awareness raising program need to be conducted by community leader to enhance their knowledge.

Key words: Awareness, Malaria, Community, Tharu People

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I. Introduction

Malaria is a life threatening disease caused by plasmodium parasites, which are transmitted, to the people through a bite of female Anopheles Mosquito. Symptoms usually appear 10-14 days after mosquito bite and the first symptoms are fever, headache and chills, which are difficult to recognize as malaria. Children having severe malaria may develop one or more of the following symptoms: severe anemia, respiratory distress in relation to metabolic acidosis, or cerebral malaria. In adults, multi-organ failure is also frequent.¹ In the world, malaria is one of the most prevalent and widespread parasitic disease with an estimated of 216 million cases in 2016. In Southeast Asia Region, India alone contributes around 70% of total malaria cases and about 82% of the populations are at risk of malaria infection. Globally, India has fourth highest number of malaria cases and deaths in the world.² Malaria is a major public health problem in the world. Several factors are responsible for the occurrence of malaria like poor drainage and sanitation facilities, lack of knowledge about mosquito-borne diseases, poor surveillance and monitoring, champed agricultural practices, new irrigation schemes, developmental activities, increasing population, frequent travel.³ In worldwide approximately 300 million people are affected by malaria and every year between 1 to 1.5 million people die due to malaria. About 70% of Nepal's population lives in areas with unstable malaria transmission. Out of 23.2 million population of the country, 16.5 million people are at malaria risk in Nepal, 2001.⁴ In Nepal, micro-stratification exercise (based on the number of malaria cases, geo-ecology, vector breeding and vulnerability due to migration and population movements) was done. In which 54 VDCs are at high risk, 201 VDCs at moderate risk and 999 VDCs at low risk for contracting malaria. 13 million people (47.9% of the population) are living in malaria endemic VDCs, out of which around 1 million (3.62%) live in high risk VDCs, 2.66 million (9.8%) in moderate risk VDCs, and 9.38 million (34.5%) in low risk VDCs. A total of 14.13 million (52.1%) people are estimated to live in VDCs with no malaria transmission.⁵

II. Materials and Method

Descriptive, cross-sectional research design was used to find out awareness regarding malaria among Tharu community people residing in Bharatpur- 17, Chitwan. A total of 147 samples, aged 20 years and above were included in the study.

Study Design: Descriptive, cross-sectional research design

Study Location: Bharatpur- 17 (Haraiya, Beluwa and Bangai), Chitwan, Nepal

Data collection time: 23-06-2019 to 07-07-2019 A.D (2076/3/8-2076/3/21 B.S).

Sample size: 147

Subjects and selection methods: A probability, simple random sampling technique was used in this study. At first the total number of population 237 was identified through the help of Tharu leader. Then, the numbers of the household were listed and 147 samples were selected through random table method. Only one member from every single house with aged 20 years and above was taken as a study sample. Those households who were having more than one member aged 20 years and above, in those case only head of the family was selected as a study sample and others were excluded from the study.

Procedure methodology

Ethical approval was obtained from Chitwan Medical College (CMC)- Institutional Review Committee (IRC), Bharatpur 10, Chitwan. After getting permission from Bharatpur Metropolitan Office, Chitwan, Data was collected by using structured interview schedule. Verbal informed consent was obtained from each respondent by clarifying the purpose of the study prior to the data collection. The research instrument consisted of two parts: Part I - Questions related to socio-demographic information. Part II – Questions related to awareness regarding malaria.

Statistical analysis

Data was analyzed by using Statistical Package For Social Sciences (SPSS) version 20 for analysis. Data was analyzed by using descriptive statistics such as frequency, percentage, median. Inferential statistics (Chi-square) was used to measure the association between level of awareness and selected variables.

III. Result

TABLE 1: Respondents' Awareness Regarding Malaria: Nature, Cause, Risk Factor

n = 147

Variables	Correct Response	
	Frequency	Percentage
Malaria is most serious health problem in community	139	94.6
Malaria is transmitted by mosquito bite	144	98.0
Breeding site of mosquito is stagnant water	145	98.6
Staying with patient can cause malaria	80	54.4
Mosquito bite during night time may cause malaria	105	71.4
Rainy season is high risk season for causing malaria	136	92.5

TABLE 2: Respondents' Awareness Regarding Malaria: Sign and Symptoms, treatment

n = 147

Variables	Correct Response	
	Frequency	Percentage
Continuous fever is sign and symptom of malaria.	142	96.6
Feeling hungry is sign and symptom of malaria.	120	81.6
Headache is sign and symptom of malaria.	142	96.6
Constipation is sign and symptom of malaria.	76	51.7
Back pain is sign and symptom of malaria.	116	78.9
Nausea and vomiting is sign and symptom of malaria	133	90.5
Malaria can be treated	143	97.3
Malaria can also be treated by self- medication	136	92.5

Table 3: Respondents' Awareness Regarding Malaria: Prevention and Complication

n = 147

Variables	Correct Response	
	Frequency	Percentage
Mosquito bite is preventable	137	93.3
Mosquito net helps to prevent malaria	147	100.0
Unhygienic environment helps to prevent malaria	137	93.3
House spray with insecticide helps to prevent malaria	140	95.2
Open doors and window helps to prevent malaria	135	91.8
Liver damage is the complication of malaria	136	92.5

TABLE 4: Respondents' Level of Awareness Regarding Malaria

Variables	Frequency	Percentage
Good	50	34.0
Satisfactory	31	21.1
Poor	66	44.9
Total	147	100

Median age =33, IQR=Q₃-Q₁=42-26, Min. = 20 Max. = 72

Table 4 shows that 34.0% of the respondents had good level of awareness while 44.9% of the respondents had poor level of awareness regarding malaria.

TABLE 5: Association between Respondents' Level of Awareness Regarding Malaria and Selected Variables

Variables	Level of Awareness			p-value	χ ²
	Good	Satisfactory	Poor		
Age					
<33	24(16.3%)	12(8.2%)	35(23.8%)	0.420	1.735
>33	26(17.7%)	19(12.9%)	31(21.1%)		
<i>Median age =33</i>					
Sex					
Male	16(10.9%)	5(3.4%)	19(12.9%)	0.275	2.584
Female	34(23.1%)	26(17.7%)	47(32.0%)		
Marital Status					
Married	49(33.3%)	30(20.4%)	64(43.5%)	0.927	0.152
Unmarried	1(0.7%)	1(0.7%)	2(1.4%)		
Educational Status					
Literate	42(28.6%)	25(17.0%)	55(37.4%)	0.922	0.162
Illiterate	8(5.4%)	6(4.1%)	11(7.5%)		
Religion					
Hindu	47(32.0%)	28(19.0%)	63(42.9%)	0.616	0.969
Christian	3(2.0%)	3(2.0%)	3(3.0%)		
Occupation					
Job Holder	1(0.7%)	1(0.7%)	1(0.7%)	0.857	0.309
Non job holder	49(33.3%)	30(20.4%)	65(44.2%)		
Participation in awareness program of malaria					
Yes	3(2.0%)	1(0.7%)	1(0.7%)	0.418	1.745
No	47(32.0%)	30(20.4%)	65(44.2%)		

Significant Level at 0.05

Table 5 shows that there is no statistical significant association between the level of awareness and selected variables.

IV. Discussion

Regarding the awareness about malaria the findings of the study revealed that 98.0 % of the respondents knew that malaria is caused by mosquito bite, which is similar to a study conducted by Gupta and Bhat (2018) which showed that 96% of the respondent knew that malaria is caused by mosquito bite². Study revealed that, 98.6% of the respondents knew that stagnant water is the breeding site of mosquito, which is similar to the findings of the study conducted by Abate, Degarege and Erko (2013), which showed that 91.6% of the respondent knew that stagnant water is breeding site of mosquito⁶. Study revealed that, 71.4% of the respondents knew that mosquito bite during nighttime can cause malaria, whereas a study conducted by Abate, Degarege and Erko (2013) which showed that 83.8% of the respondents knew mosquito bite during night time cause malaria⁶. Study revealed that, 96.6%, 96.6%, 78.9% and 90.5% of the respondents knew that continuous fever, headache, back pain and nausea/vomiting are sign and symptoms of malaria respectively which is consistent with the study conducted by Abate, Degarege and Erko (2013) which showed that 94.6%, 84.5%, 69.4% and 66.6% of the respondents knew that continuous fever, headache, back pain and nausea/vomiting are sign and symptoms of malaria⁶. 97.3% of the respondents in the present study knew that malaria can be treated, whereas a study conducted by Joshi and Banjara (2008) which showed similar findings that 95.3% of the respondents knew that malaria can be treated⁷. Regarding respondents' level of awareness about malaria, 34.0% had good level of awareness, 21.1% had satisfactory level of awareness and 44.9% of the respondents had poor level of awareness regarding malaria which is supported by the findings of the study conducted by Tang et.al (2016) revealed that 47.5% of the respondents had poor level of awareness regarding malaria⁸. The current study showed no statistically significant association between level of awareness regarding malaria and socio-demographic characteristics such as age (p=0.42), sex (p=0.275), education (p=0.922), marital status (p=0.927), religion (p=0.616) and occupation (p=0.857). Similarly the study conducted by Hamza, Azmzch and Husen

(2017), also showed no significant association between age, sex, education, marital status, religion and occupation³.

V. Conclusions

Based on the findings it is concluded that one third of the Tharu community people had good awareness and nearly half have poor level of awareness regarding malaria. There was no association between level of awareness and selected variables.

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