

# Assessment of Knowledge, Attitude and Practice Related to Malaria Control and Prevention Among Community Women in Rural Area of Lahore

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## Abstract

**Background** It is one of the top 10 killer diseases in the world and about 40.0% of the World's population is in high-risk malaria areas. Malaria is the second most prevalent disease in Pakistan. Globally annual estimates on the incidence of clinical malaria vary between 300 to 500 million and 1.5-2.7 million people die of malaria. One million estimated and 300,000 confirmed reported cases each year in Pakistan. . Previous studies showed that, there is a gap between knowledge, attitude and practices of Malaria control and prevention. **Objective:** The study purpose is to assess the knowledge, attitude and practices among community women regarding malaria prevention and control in rural area of Lahore Pakistan. **Methodology:** The quantitative cross-sectional study design was used with convenient sampling (n=100) from women in rural area of Lahore. Using the self-administered questionnaire, data was analyzed on SPSS 21 version and application of chi-square test with ( $p < 0.05$ ). **Result:** The respondents 100% were familiar with malaria word. They think that high temperature /Fever are the sign and symptoms of Malaria 90.3(93) replied yes because they were 93.3 % sure that fever is the sign and symptom of malaria. The participants 87.1% have knowledge about transmission of Malaria by mosquito bite. Moderately adequate knowledge was found and knowledge of disease transmission was significant associate with qualification. Qualification did effect on the attitude of participants. Qualification and practices did not have significant associated with each other. **Conclusion:** The every women should know about the transmission, nature of Malaria, preventions and precautions of Malaria. There is need to improve the knowledge and provide training especially preventive and control measure regarding Malaria disease.

**Keywords:** Malaria, Community women, Knowledge, Attitude, practice

## INTRODUCTION

**Background of the study:** It is one of the top 10 killer diseases in the world and about 40.0% of the World's population is in high-risk malaria areas. Malaria is the second most prevalent disease in Pakistan. In endemic countries like Pakistan, precise and timely diagnosis of malaria is imperative to overcome the associated risks of fatal outcomes.( Xu, Duan et al. 2013) Global annual estimates on the incidence of clinical malaria vary between 300 to 500 million and 1.5-2.7 million people die of malaria (an estimated two deaths per minute). Ninety percent of these deaths occur in sub-Saharan Africa where the parasite (Plasmodium) is continuously present in the community. (Liu, Johnson et al. 2012)

Malaria poses an enormous burden to the world's population, with 216 million cases and 655,000 deaths attributable to this mosquito-transmitted parasite in 2010 alone. The burden is largely borne by Africa where 91 % of deaths occurred, with pregnant women, their unborn babies and children under five years of age most at risk of infection and adverse outcomes.. Each year, there are an estimated 25 million pregnancies in sub-Saharan Africa at risk of malaria, the consequences of which can be serious for both mother and fetus in terms of morbidity and mortality(Kayedi, Rassi et al. 2017)

## AIMS OF THE STUDY

The aim of this study was to assess the knowledge attitude and practice of community people regarding malaria control and prevention..

**SIGNIFICANCE OF THE STUDY :**One million estimated and 300,000 confirmed reported cases each year, Pakistan has been grouped with Afghanistan, Somalia, Sudan and Yamen accounting for more than 95% of the total regional Malarial burden . Malaria transmission in Pakistan has been traditionally seasonal and of unstable (WHO, 2015).

## Research Question

**Research Question 1** What kind of knowledge women are having regarding control and prevention of Malaria?

**Research Question 2** – What kind of Attitude women are having regarding control and prevention of Malaria?

**Research Question 3** – What kind of Practice women are having regarding control and prevention of Malaria?

## II. Literature Review

Study conducted in Pakistan in 2013 showed that 281,755 confirmed malaria cases were reported through national malaria disease surveillance system, whereas 244 death are due to malaria were also reported. The number of reported malaria cases almost doubled from 2009 to 2012 with an equivalent rise in API. (van Eijk, Hill et al. 2013).

Study conducted at sheikhupura district of Punjab toward knowledge, attitude and Practice of respondents towards malaria prevention and control. In this study, respondents are knowledgeable on symptoms of malaria of the participants know the symptoms of malaria. (Oneeb, Maqbool et al. 2016).

Study conducted in Sindh reports 10% smear positive cases. However, we are unable to achieve the global targets of malaria eradication from the world. (Imtiaz, Nisar et al. 2016)

In the findings of this research majority of respondents had ever heard about malaria (85%) and attributed its transmission to mosquito bites (80%), a number of misconceptions were also known in terms of transmission, (Hausmann-Muela, Ribera Muela et al. 2016)

A study conducted at Swazilandat community level showed that 99.7% of respondents correctly stated that malaria was associated with mosquito bites and 90% reported that they would seek treatment within 24 hours of seeing the first symptoms of malaria. (Siu, Kennedy et al. 2016).

Malaria is a significant public health challenge particularly in sub-Saharan Africa. In 2012, there were an estimated 207 million cases of the disease worldwide with most (80%) being in Africa' (Adongo, Kirkwood et al. 2005)

In Uganda, malaria is the leading cause of morbidity and mortality especially among children under five years of age and pregnant women. Uganda ranks fourth among the highest malaria burdened countries in the WHO African region based on the estimated number of cases (Orem, Kirigia et al. 2012).

In Ethiopia, as one of Sub-Saharan Africa countries malaria also remains one of the most public health problems despite considerable effort made to control it.. The major malaria targets of the Ministry of Health are a 100% household coverage of (Haile, Abera et al. 2016).

A study conducted in Nsaabwa regarding knowledge about malaria, showed that majority of respondents were correctly associated mosquitos with malaria transmission (88%) and acknowledged that malaria can kill if it went untreated (96%). (Gyapong, Nartey et al. 2016).

Another study conducted at Nepal showed that (64%) were aware of the different ways to prevent and control malaria. A few even believed that malaria could be transmitted by drinking contaminated water (13%), eating a lot of mangoes (2%) or eating contaminated food (2%)(Stoler and Awandare 2016).

**CONCEPTUAL FRAMEWORK:** Martin Fischbein and Icek Ajzen discovered the theory of reasoned action in 1980. The relationship between attitude and behavior of individual is indicated by theory of reasoned action. "According to Ajzen this theory used to determine the individual behavior by his or her intention which is the cognitive representation towards performs the specific health behavior". (Okafor 2016).

It can be related to this study and it could be used to analyze the people's attitude towards caring of Malaria patients by using their thinking process. It also determine the individual belief towards malaria control and prevention which other consider that he or she should behave like this in a specific situation by the socially subjective norms.

### **Methodology:**

#### **Setting:**

In Current study, data was collected from women aged from 20 to 50 year who lived in the community at the time of study.

#### **Population:**

The study population of the current study was the women who lived in the Hussain Abad rural area of Lahore aged from 20 to 50.

#### **Sampling**

Convenient sampling technique was used to collect the data.

#### **Tool of Research:**

An adaptive questioner was taken from article to conduct the information from community women age from 20 to 50 of the rural area of Lahore. Questioner was adapted from article. Pilot study will be done to check the Reliability and validity (Delobelle, Rawlinson et al. 2009)

#### **Data gathering procedure:**

Questionnaire with close-ended question was used. Data was collected by distributing the adaptive questioner among community women. A questioner consist of 32 items included four sections Demographic data, Knowledge, Attitude and practice will be used to conduct the information.

#### **Data analyze**

Data was analyzed by using the Statistical Package for the social science (SPSS) 21, descriptive statistics such as frequencies, and percentages. The association between knowledge attitude and practice will be drawn through

Chi-square test with ( $p < 0.05$ )

**Study Duration:**

The study were conducted over a period of three months that start from October 2017 and ends on December 2017.

**Ethical consideration**

The study was conducted in the community after the permission letter from institutional review board committee of university of Lahore. A written consent was taken from stakeholder. An informed consent was taken from participant, before data collection. The human rights of community people were not violated. Each member who was participant in this study was dealt in respective way. All information was being kept confidential.

**IV.RESULTS**

This section presents the outcomes of the study.

**PROFILE OF THE RESPONDENTS:** Respondents were taken from rural area of Lahore

**Demographic Data:**

The questioners were distributed in 100 participants. By using the convenient sampling technique to collect data.

**(Table No. 4.1): Demographic Information of Participants.**

Participants	n = 100 (F)%	Mean & St. Dv
Gender of respondents	Female (100) 100%	(1.00± .000)
Age Group of respondents	1=20-25(4) 3.9%      2= 26-30(51) 49.5% 3= 31-35(40)38.8%      4= 36-above(5)2.9%	(1.89± .314)
Marital Status of respondents	1=Married(89) 86.4% 2=Single(11) 10.7%	(1.75± .314)
Education of respondents	1=Primary(36)35%      2=Middle(54)52.4% 3=Matric(9)8.7%      4=Intermediate(1)1.0%	(2.46± .658)

**Table No.4. 2) Community women s Knowledge Regarding malaria prevention and control.**

Variable	Yes (F)%	No (F) %	Don't know (F) %	Mean & St. Dv
Have you ever heard about Malaria?	(100)100%	(0)0%	(0)0%	(1.00+ .000)
What do you think are the most common signs and symptoms of Malaria infection?	(6)5.8%	(93)90.3%	(1)1%	(1.84+ .395)
What do you think that high temperature /Fever are the sign and symptoms Malaria?	(95)92.2%	(5)4.9%	(0)0%	(1.05+ ..219)
What do you think that losses of appetite are the sign and symptoms of Malaria?	(66)64.1%	(34)34.0%	(0)0%	(1.34+ .476)

**Table No.4. 2) Community women s Attitude Regarding malaria prevention and control:**

Variable	Disagree (F) %	Neutral (F) %	Agree (F)%	Strongly agree (F)%	Cumulative frequency (F)%	Mean and St. Dv
I think that Malaria is a serious and life-threatening disease	(6)5.8%	(13)12.6%	(54)78.6%	(7)26.2%	(100)100%	(1.00±.000)
Malaria can be transmitted from one person to another like the common cold.	(100)100%	(0)0%	(0)0%	(0)0%	(100)100%	(1.84±.300)
In my opinion, only children and pregnant women are at risk of Malaria	(41)39.8%	(0)0%	(59)57.2%	(40)38.8%	(100)100%	(1.05±.219)
I believe sleeping under a mosquito net during the night is one way to prevent myself getting Malaria.	(0)0%	(0)0%	(100)100%	(34)33%	(100)100%	(1.34±.446)
If someone has got Malaria, people should avoid having close contact with him/her	(100)100%	(0)0%	(0)0%	(0)0%	(100)100%	(4.00±.865)
I think that it is dangerous when Malaria medicine is not taken completely.	(100)100%	(0)0%	(0)0%	(0)0%	(100)100%	(1.35±.502)

## V.DISCUSSION

In the findings of this research majority of respondents had ever heard about malaria (85%) and attributed its transmission to mosquito bites (80%), a number of misconceptions were also known in terms of transmission, 15 respondents thought malaria was transmitted by cold weather, 53 respondents faulted dirt, while 35 respondents said not sleeping under a net. In terms of cause, the majority rightly identified the mosquito (91%), but 28 suspected cold foods, 3 mentioned playing in the rain, and 19 mentioned cold weather, while 6 cited eating mangoes (Hausmann-Muela, Ribera Muela et al. 2016) In the findings of this research majority of respondents had ever heard about malaria (85%) and attributed its transmission to mosquito bites (80%), a number of misconceptions were also known in terms of transmission, 15 respondents thought malaria was transmitted by cold weather, 53 respondents faulted dirt, while 35 respondents said not sleeping under a net. In terms of cause, the majority rightly identified the mosquito (91%), but 28 suspected cold foods, 3 mentioned playing in the rain, and 19 mentioned cold weather, while 6 cited eating mangoes (Hausmann-Muela, Ribera Muela et al. 2016).

## LIMITATIONS:

Non-probability sampling technique was applied in the study. There might be response bias in the results because of the sensitive topic. The study was conducted only in rural area of Lahore.

## VI. CONCLUSION

The study concluded that overall level of knowledge among community women was satisfactory but there were also some misunderstanding about transmission of Malaria disease. The attitude was shown positive and there were satisfactory practices of regarding Malaria prevention and control. There was statistically significant association between qualification and knowledge of community women regarding malaria prevention and control, insignificant association in qualification and attitude and there was significant association in qualification and practices.

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