# Knowledge, Attitude & Practices Related To Prevention of Mosquito Born Diseases in Rural Area of Lahore

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#### INTRODUCTION

Mosquito borne diseases are seen in tropical sub tropical areas of the community. Mosquito cause mosquito borne diseases which occur due to bites of mosquito and their spread is worldwide.

Mosquito borne diseases are a big public health issue. Mosquito borne diseases cause a largescale of morbidity and mortality due to poverty in the developing countries [1]. Dengue is one of the most important vectors born disease. World Health Organization, Ranks dengue, as the most major mosquito-borne viral disease in the world.Dengue is a very fetal diseases leading to death [2].

Dengue is a viral disease transmitted by Ade's aegypti and Aedes albopictus species. There are two main form, dengue fever and dengue hemorrhagic fever. Five species of parasitic protozoan caused malaria and these transmitted mostly by mosquito of genus Anopheles [3]. In 2015, WHO estimates that 214 million cases of malaria and 438, 000 people died from malaria.MBDs preventive behavior is defined as behavior that can prevent dengue by eliminate Aides breeding sites; like cleaning the house from water collecting containers ,checking the drains and clogged tins, old tires in the back yard, and check the water inflow pots inside or outsides the houses [4]. MBDs

creates high financial loss which leads to disintegrate the community health system [5]. Government is trying to reduce the risk of MBDs despite this, the rural communities are still involved by diseases likes dengue, malaria, chikungunya and other communicable diseases due to poor sanitation [6].

#### AIM OF THE STUDY

The purpose of this study is to identify the knowledge, attitude and practices related to Mosquito Born Diseases (MBDs) and to evaluate preventive measures variables in rural community Lahore.

#### SIGNIFICANCE OF THE STUDY

The present study will be a source of information for me and this study will help in providing information about knowledge, attitude, and practice regarding prevention and controlling sanitation conditions related to mosquito born diseases about community people. This study will also help the community people to improve living standard. This study will also help the rural community people, how to prevent the mosquito born diseases and to improve the sanitation conditions. They will protect themselves by using some methods as mosquito net at night, use mosquito lotions, coils etc. The community people will cover their gutters and avoid from stagnant water and reduce the production of larvae in their home. The findings of this study will be helpful for the stakeholder to improve the sanitation conditions of the community people by educating and meeting with the community people at one place. This study will become beneficial for nursing professionals and researcher.

# **RESEARCH QUESTION**

- *Research Question 1* What is the knowledge of adult population (15-50 years) of Rural Community towards prevention of mosquito born diseases?
- *Research Question* 2 What is the attitude of population of Rural Community to prevent mosquito born diseases?
- *Research Question 3* What are the practices of population (15-50years) of Rural Community?

# LITERATURE REVIEW

A study conducted in Malaysia. Dengue is one of the important vectors born disease. However, there is no standard instrument to measure the associated factors of dengue preventive behavior [7]. In 2011, 22,562 dengue cases were confirmed, 363 deaths occur in the country. In sindh 952 cases were reported with 18 deaths, In Karachi, 755 cases with 15 deaths reported. In 2015, 3212 cases were detected in Karachi, with incidence rate of 35.6 per 100,000 in the 9-million populations [8]. A study was conducted in Bangalore India community based with an objective of KAP study and preventive practices with the respect of dengue fever [9]. According to Geneva, 2009 Dengue fever is caused by a mosquito born human pathogen. Dengue is in two main form dengue fever and dengue hemorrhagic fever [10]. A study was conducted in rural area of the Myanmar Malaria is a global health problem in particular, a major health problem in Southeast Asia. It is estimated that 500 million people are infected by malaria nearly 10% of the world's population with 1-2 million death each year [11]. Mosquito born diseases is a very important issue of public health. These diseases are creating ahigh economic collaps for government in Salvadoran community.Mosquito born disease are transmitted by bites of mosquito and are spread worldwide [12]. A quantitative interventional study was conduct at Haemak Medical Centre in Northern Israel. This finding shows that hygiene compliance of people is very necessary in the community [13]. A crosssectional study was conducted in Salvadoran USA survey on evaluation of (KAP) knowledge, Attitude and Practices regarding prevention of mosquito born diseases ansd sanitation conditions. A study coducted on mosquito born diseases and sanitation conditions in Salvadoran community. According to this study 96% respondents were aware of mosquito born diseases

preventive measures. It is estimated that 50-500,000 cases of of dengue fever occur woldwide. Out of 2.5 billion people at risk globally; 1.8 billion or more than 70% of them living in the Asia-Pacific [14].

# CONCEPTUAL FRAMEWORK

This study closely relate to Theory of Health Belief Model (HBM) this study focused on psychosocial factors. Psycho-social factors are close relation between the psychological aspects of the individual with the social environment. It also means a combination of internal factors of the Individual, who involve the mind, thoughts, emotions, feelings and behavior with social factors such as interaction and relationship with others .In this study fear and awareness towards mosquito born diseases. Mosquito born diseases preventive behavior and cooperation are the psychosocial factor.

# METHODOLOGY

# SETTING

Data was collected from 100 people of Hussain Abad Community.

# **RESEARCH DESIGN**

A descriptive quantitative design was used for this Study.

# POPULATION

The target populations were all population male female age15-50 years from Hussain Abad community Lahore.

#### SAMPLING

Data was collected from convenient select sample of 100 male and female of age group of 15-50 years. Data was collected through predesigned questionnaire.

#### **RESEARCH INSTRUMENT**

An adopted questionnaire was designed for this study to gather data to answer the research questions.

# DATA GATHERING PROCEDURE

Ethical clearance to conduct the study was obtained from Institution Review Board Committee the University of Lahore. Permission from community stakeholder was taken to collect health and demographic data in the community. Data was collected by using a predesigned questionnaire which is adopted from previous study Knowledge Attitude and Practices Related on Prevention of Mosquito Borne Diseases and Sanitation Conditions in a Salvadoran Urban Community. Data was collected from 100 total participants the reliability and validity of the questionnaire was checked.

#### DATA ANALYSIS

Data entry was completed by the primary investigator at SPSS, version 21. Results shown in frequency, percentage, mean medium, mode and standard deviation The results were considered statistically significant at p=0.05 or p<0.05.

#### STUDY TIMELINE

The study was conducted from September 2017 to January 2018 in the rural area of Lahore (Husain Abad) and the duration of this study is five months.

#### ETHICAL CONSIDERATION

Participants were informed about the aim of the study. Ethical consideration was strictly followed.

Participant's recruitment based on purely voluntary basis. It means that participants had given an informed consent to give agreement for involvement in the survey. All the participants had open opportunity to participate in the research. No one person was forced to participate in the research. Participant's confidentiality was maintained that will not share their information with others. It had been sure the confidentially. This data will be used only for study purpose. Participant's moral beliefs, values community people that this data will be kept confidential.

#### RESULTS

#### **Profile of the respondents**

Respondents were selected from rural community of Lahore.

Table-1. Demog	apine Character	ISUCS
Variable	Frequency	Percent
Gender		
Male	27	27.0
Female	73	73.0
Total	100	100.0
Age		
15-25	55	55.0
26-30	9	9.0
31-35	22	22.0
36-50	14	14.0
Total	100	100.0
Occupation		
Students	57	57.0
House wife	33	33.0
Work in construction	10	10.0
Total	100	100.0
Qualification		
Uneducated	9	9.0
Primary	14	14.0
Matric	47	47.0
F.A	30	30.0
Total	100	100.0

# magnaphia Chanastanistias

#### Table-1 Socio Demographic Characteristics of respondent

Table indicates that majorities (73%) of the respondents were females and (27%) were male. (55 %) were of age 15-25 and (9 %) 26-30 years (22%) of age 31-35 (14%) were 36-50 years old. Most (57%) of respondent were students (33%) house wife (10%) work in construction. (57%) unmarried (43%) married.(47%) Matric level students (30%) F. A (14%) primary education and (9%) uneducated.

Table-2: Kno	wledge of	i the Re	spondent
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Statements				
Are dengue and malaria transmitted by bites of mosquito?				
Is mechanism of transmission of mosquito born diseases is body fluids, stagnant water?				
Are you using preventive measures to avoid from reproduction of mosquito larvae?				

#### **Table-2: Knowledge of Respondent**

Table-2 the respondents about (97%) have awareness about mosquito born diseases and only (3%) not known, mosquito born diseases. (63%) people not know transmission of mosquito born diseases (37%) know about the transmission of mosquito born diseases. (43%) people know about when mosquito bites (57%) not know when the mosquito bites. (99%) people know

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about the breeding places, (1%) not know. (100%) people know about the preventive measures to avoid

from mosquitos larvae.

Table-3: Attitude of the respondents					
Statement	S.A	Α	Ν	D	S.D
Do you consider the preventive measures reduces mosquito could avoid from mosquito born	67	33	0	0	0
diseases?					
Are mosquito born diseases a very serious problem?	57	37	5	1	0
Is this Ministry of health unique responsibility of health to reduce the larvae?	1	11	8	53	27
Are you responsible to prevent from mosquito larvae at your home?	35	64	0	0	1

#### Table-3 Attitude of the, Respondents

Observing the attitude of the community people (67%) strongly agree about the preventive measures, (33%) people agree. Mosquito born diseases are serious problem (57%) strongly agree, (37%) agree, (5%) not sure, (1%) disagree In attitude Ministry of health entity responsibility (53%) disagree, (27%) strongly disagree, (11%) agree, (8%) not sure, (1%) strongly agree. In your home spread of larvae (64%) people agree, (35%) strongly agree and only (1%) stronglydisagree.

#### **Table-4: Practice of the respondents**

Statement	Yes	No
Are you using a larvicide and cover water containers to prevent reproduction of mosquitoes?	56	44
Are you practices use of insecticide, screens in window and doors, bed nets to prevent from mosquitoes		
bites?	58	42

#### **Table-4 Practices of the Respondents**

In case of practices (56%) respondents have practices against prevention of mosquito born diseases and (44%) had no practices to prevent from mosquitoes. Only (58%) people use insecticides, screens in windows and doors, bed nets and (42%) community people not practiced to avoid from mosquitoe.

#### DISCUSSION

The study revealed the suitable sanitation circumstances of the rural community; the participants showed good knowledge and attitude but very poor implementation of practices to prevent from Mosquito Born Diseases. The aim of this study was to assess the knowledge, Attitude and practices regarding prevention of mosquito born diseases. Research had conducted in rural area of Lahore Pakistan in 2017. A cross-sectional study is conducted about Knowledge, attitude and practices related to prevention of Mosquito born diseases. Data was collected from 100 community people age 15-50 years old results showed that the respondents about

(97%) have knowledge about mosquito born diseases and only (3%) not known mosquito born diseases. While observing the attitude of the communities people (67%) strongly agree about the preventive measures, (33%) people agree. Only (58%) people use insecticides, screens in windows and doors, bed nets and (42%) community people not practiced to avoid from mosquitoes. Such study is also carried out in EI Salvadoran (Community of San Bartolo) to see the condition of Mosquito born diseases knowledge, attitude and practices related to prevention of mosquito born diseases. Results of that study showed knowledge (76.8) and highly corresponding attitude (92.1%), satisfactory implementation of practices were (58.5%) and poor implementation were (38.3%). The finding showed high knowledge, constructive attitude and poor practices [12].

#### LIMITATIONS

During conducting study there were some limitations as the data was collected from only one setting, it has limited generalizability. Convenient sample was applied in data collection process whereas the probability sampling method can enhance the induction of different strata of the participants. The study was limited to assess knowledge, attitude, practices and prevention regarding mosquito born diseases among adult population of rural area of Lahore.

#### CONCLUSION

The knowledge and practices of people are related to their gender, marital status, age and occupation. Unexpectedly education has no association with knowledge or better preventive behavior. Inspite of good knowledge people of this community have low practices to prevent from mosquito born diseases. Key finding of this study is that practices are low against prevention of mosquito born diseases. Health department should take part in this regard.

#### RECOMMENDATION

For future study it is suggested that data should be collected from other rural area of Lahore. Because all the rural areas of Lahore are very important and play vital role in acquiring the quality of care to prevent the people from mosquito born diseases. It is suggested that future study should be conducted in more than one Rural Areas of Lahore. Sample size should be more than 100 people of rural community

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#### APPENDIX

# The University of Lahore School of Nursing

I am Humaira Shaheen, PBSN02163005, Student of LSN, Post RN Year II, and Semester I, going to conduct study on "knowledge, Attitude, practice and prevention of mosquito born diseases in rural community of Lahore". It is a data based study that has no harm to participant. You are free to participate in this study. The information obtain from this study will be kept in confidential and to determine at required places. Your participation in this study will be appreciated.

Signature.....

	Section A: So	cio demograr	ohics profile (	of the	participants.
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Variables		Designation	
Gender	1-Male	Marital status	1-Married   2-Unmarried
Age Group	1-15-25 yrs     2-26-30yrs     3-31-3 yrs     4-36-50yrs	Qualification	1.None   2.Primary/secondary   3.High school   4.College
Occupation	1= student   2=stay at home Mothers   3=Worked in construction or domestic employ		

#### Section B: knowledge regarding to prevention of MBDs Encircle the correct answer only Rating score: 1-Yes 2- No

S.NO	QUESTIONS	Yes	No
6	Are dengue and malaria transmitted by bites of mosquito?		
7	Is mechanism of transmission of mosquito born diseases is body fluids, stagnant water?		
8	Is mosquito bites at dawn, night?		
9	Is tires, hollow trees are the breeding places of mosquito?		
10	Are you using preventive measures to avoid from reproduction of mosquito larvae?		
11	Are you using any preventive measures to prevent from mosquito bites?		

#### Section C: Attitude about prevention of Mosquito born diseases. Rating score: 1-Strongly agree 2- Agree 3- Not sure 4-Disagree 5-Strongly disagree Likert scale questions

	1					
S.NO	Questions	Strongly	Agree	Not	Disagree	Strongly
		Agree		Sure		Disagree
12	Do you consider the preventive measures to reduce mosquitoes could avoid mosquito born diseases?					
13	Are mosquito born diseases serious problem?					
14	Is it spraying the best to kill mosquitoes?					
15	Is it Ministry of health unique entity responsibility to reduce larvae?					
16	Are you responsible to prevent spread of Larvae in your home?					

Kating Score. 1-105 2-100					
S.NO	Questions	Yes	No		
17	Are You using a larvicide and cover water containers to prevent from				
	reproduction of mosquitoes?				
18	Are you practice use of insecticide, use of screens in window and doors, bed				
	nets to prevent from mosquito bites?				

#### Section: D Preventive measure Rating score: 1-Yes 2- No