

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

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Abstract: According to World Health Organization, Mosquito borne diseases are the fast emerging viral diseases in many areas of the world. Mosquito borne diseases affects in the tropical and sub tropical regions in the world (Arunachalam, N., Tana, S., Espino, F., Kittayapong, P., Abeyewickrem, W., Wai, K. T., & Petzold, M. 2010). In Rural area of Lahore Mosquito Born Diseases is a big public health issue because in the developing countries they cause a large scale of morbidity and mortality due to poverty. The aim of this study is to evaluate Knowledge, Attitude, and practices related to improve sanitation conditions of the rural community and prevention from Mosquito Born diseases. A Cross-sectional descriptive research design was used knowledge, Attitude, Practices and prevention of Mosquito Born diseases of 100 people was collected door to door through questionnaire. Age group of participants was 15-50 years old. The respondents about (97%) have awareness about mosquito borne diseases, attitude of respondents was (67%) about the mosquito born diseases and practices of respondent (56%) The knowledge of respondent regarding mosquito borne diseases was found good in spite of good knowledge the respondent have poor implementation.

Keywords: Knowledge, Attitude, and Practices, Mosquito Born Diseases (MBDs), prevention of mosquito borne Diseases.

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 large-scale 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 outside 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 a high economic collapse for government in Salvadoran community. Mosquito born disease are transmitted by bites of mosquito and are spread worldwide [12]. A quantitative interventional study was conducted at Haemak Medical Centre in Northern Israel. This finding shows that hygiene compliance of people is very necessary in the community [13]. A cross-sectional study was conducted in Salvadoran USA survey on evaluation of (KAP) knowledge, Attitude and Practices regarding prevention of mosquito born diseases and sanitation conditions. A study conducted 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 dengue fever occur worldwide. 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 relates to Theory of Health Belief Model (HBM) this study focused on psychosocial factors. Psycho-social factors are in 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 age 15-50 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 pre-designed 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 pre-designed 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: Demographic Characteristics

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

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: Knowledge of the Respondent

Statements	Yes	No
Are dengue and malaria transmitted by bites of mosquito?	97	3
Is mechanism of transmission of mosquito born diseases is body fluids, stagnant water?	37	63
Are you using preventive measures to avoid from reproduction of mosquito larvae?	99	1

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 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	A	N	D	S.D
Do you consider the preventive measures reduces mosquito could avoid from mosquito born diseases?	67	33	0	0	0
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 mosquito.

satisfactory implementation of practices were (58.5%) and poor implementation were (38.3%).The finding showed high knowledge, constructive attitude and poor practices [12].

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

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: Socio demographics profile of the participants.

Variables		Designation	
Gender	1-Male <input type="checkbox"/>	Marital status	1-Married <input type="checkbox"/>
	2-Female <input type="checkbox"/>		2-Unmarried <input type="checkbox"/>
Age Group	1-15-25 yrs <input type="checkbox"/>	Qualification	1.None <input type="checkbox"/>
	2-26-30yrs <input type="checkbox"/>		2.Primary/secondary <input type="checkbox"/>
	3-31-3 yrs <input type="checkbox"/>		3.High school <input type="checkbox"/>
	4-36-50yrs <input type="checkbox"/>		4.College <input type="checkbox"/>
Occupation	1= student <input type="checkbox"/>		
	2=stay at home Mothers <input type="checkbox"/>		
	3=Worked in construction or domestic employ <input type="checkbox"/>		

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

S.NO	Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly 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?					

Section: D Preventive measure

Rating score: 1-Yes 2- No

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?		