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Youth Knowledge, Attitude and Practices about Malaria in District Layyah Punjab

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ABSTRACT

Purpose: The present study is undertaken to examine youth knowledge, attitude and practices about malaria in district Layyah Punjab. There is little evidence that studies have been conducted to evaluate knowledge, attitudes and practices of youth about malaria prevention. Thus the aim of the study is to explore the knowledge, attitude and practice of community youth about malaria prevention and management. A standardized structured questionnaire with Multiple Choice Questions was developed. Respondents was selected through simple random sample and questionnaire were used for data collection Thereafter the data were coded and entered in computer for analysis with SPSS and later for interpretation. The majority of respondents who participated in this study had positive attitude and with sufficient knowledge with low practices regarding malaria control and prevention. The findings of the study indicate that if people are supplied with accurate knowledge through appropriate channels, they may eventually have good practices in malaria prevention and management. Regular training on malaria prevention and management is necessary to address the knowledge gap revealed in the study.

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1. Introduction

1.1 Background

Malaria has a major effect over the health and economy of many developing countries than any other disease. About half of the world population is at risk for malaria i.e., 3.3billion (WHO report 2014). In 2012 about 207 million people become severely ill with malaria and 627000 died of the disease. Sub Saharan Africans had the highest risk of acquiring malaria in 2010, 81% of the cases & 91% of the deaths were estimated to have occurred in region (WHO World Malaria Report 2011).

In the South East Asian Region of the WHO malaria incidence has decline in several countries including Bangladesh, India, Indonesia & Myanmar. Two low incidence countries of this region are in the pre-elimination phase i.e., the Democratic People's Republic of Korea & Sri Lanka. Maldives free from indigenous malaria transmission since 1984. The majority of the confirmed cases in this region are due to *P. falciparum.* 4.3 million Cases were reported in 2010 in this of which 2.4 million were confirmed parasitological (WHO World Malaria Report 2011).

Malaria is caused by protozoan parasite of the genus plasmodium transmitted to human through infected female anopheles mosquito five species of parasites of the genus *Plasmodium* affect humans (*P.falciparum, P.vivax, P.ovale, P .malariae, P.knowlesi).* Of the five parasite species which cause malaria Plasmodium falciparum is the most fatal, and it predominates in Africa, South East Asia, and Central America & South America (WHO report 2014).

Four countries of this region bear the 97% load of these confirmed cases of which 58% in Sudan, 22% in Pakistan, 10% in the Yemen & 6% in the Afghanistan. *P. falciparum* is the dominant species of the parasite in the Afro-tropical countries (Djibouti, Saudi Arabia, Somalia, Sudan & Yemen), while the majority of cases in Afghanistan, Iran & Pakistan are due to *P. vivax* (WHO. World Malaria Report 2011)

The current estimated population of the Pakistan, the 5th most populous country in the world is 183,753,942(3), 3/4th of this population lives in rural areas This population is spread over the five provinces of Pakistan namely Punjab, Sindh, Baluchistan, Khyber Pakhtun khwa (KPK) & Gilgit Baltistan as well as the Federally Administered Tribal Areas (FATA) & Azad Jammu& Kashmir (WHO World Malaria Report 2014). Malaria is one of the major causes of morbidity & mortality in high risk areas of Pakistan mainly in Sindh, Baluchistan, FATA and KPK. It has been estimated that about1.7 million cases of malaria occur in Pakistan annually (WHO World Malaria Report 2011). Major malaria transmission season in Pakistan is post monsoon (September – November), however along the coastal & Western border areas, the disease prevails throughout the year. A short transmission season during spring months (March – April) is also evident. However during the spring, most of the cases are delayed expression of disease transmitted during post monsoon season or may be due to the 2nd episode of the disease caused by relapsing *P.vivax* malaria is a continuous problem in the province of Punjab which is the most populous province of Pakistan with an estimated population of more than 8 million & population density is 396.1 persons per square kilometer.70% of its population is in rural areas where agriculture is the most common occupation In 2012 reported cases of suspected malaria were 831,630 (Health Department GOP. Punjab Health 2014).

Layyah is a rural district in southern Punjab is malaria endemic area An exact estimation of malaria cases is not available, however reports reviewed at the (Executive District Officer Health Consolidated Malaria Reports 2014) office showed that confirmed malaria cases in last few year were as below in table (Consolidated Malaria reports 2014)

In 2010	6145 confirmed cases of malaria
In 2011	921confirmed cases of malaria
In 2012	936 confirmed cases of malaria
In 2013	976 confirmed cases of malaria

In order to control occurrence of Malaria in endemic regions, Roll Back Malaria (RBM) partnership was started in 1998 with the goal of decreasing the burden of malaria by half by 2010. It is a global control strategy that emphasize on areas with endemic malaria populations. The program has been launched in many African and Asian countries including Pakistan (WHO Eastern Mediterranean region (2002-14). According to the World Health Organization (WHO) 97% (approximately 150 million) of the Pakistani

population is at risk of contracting malaria, with an estimated nationwide burden of 1.6million cases (WHO strategic plan Mediterranean region (2006-20).

2. Literature Review

This section reviews the relevant literature to highlight different aspects of the Knowledge Attitude and Practices (KAP) and related studies done on malaria in various countries.

A knowledge attitude and practices (KAP) household survey undertaken with 320 respondents in Northern Swaziland revealed that 99.7% of people respond correctly associated malaria with mosquito bites and 90% reported that they would seek treatment within 24 hours of seeing the first symptoms of malaria. Indoor residual spraying (IRS) was reported at 87.2% while having bed net, was reported at 38.8%. Despite the high level of knowledge about malaria within the surveyed communities, there was little information coming to people through their preferred source of information i.e. by traditional community district meetings, In spite of different initiatives taken by Department of Health, there was very little information for the communities about malaria. Hlongwana, K. W et al.(2009).

The importance of information delivered by community channels in rural area is addressed in a study in North Western Tanzania, which showed that there is a need to emphasize on the challenge of illiteracy among the local residents by providing information through community source The study highlighted that hearing about malaria is a good foundation on to which other activities like prevention and control can build, but it is just, at an initial level. (Mazigo, H. D (2010).

According to multiple studies done on effect of malaria over economy revealed that malaria has a negative effect on economic growth at national level(Daily, J. P (2005). It has effect over poor people's income level (Chuma et al.2007). So integrated malaria control should be prioritized in health policy as was announced in Abuja declaration of 2000 (Chuma et al. (2007)

It has been observed in many studies that research results are not properly provided to health care worker / providers so that their knowledge and skill could be up dated and they can work and treat their patient properly, this leads to poor care, in effective services and poor utilization of resources which results in health inequalities. .This has great effect over low and middle income countries which have limited resources (Jones, G (2003)

3. Rationale of the Study

Malaria is serious health problem in developing countries. Malaria is a cause of morbidity & mortality globally, regionally and also in Pakistan. Punjab has an estimated population of more than 8 million &.70% of its population is in rural areas in 2012 reported cases of suspected malaria were 831,630 (Health department GOP (2006)

District Layyah has about 1600000 population A large area is on side of river Indus According to report of Executive District health officer layyah In 2013 total malaria confirmed cases are(976) Inhabitants of reveries belts are more vulnerable to develop malaria. Layyah is a rural district in southern Punjab is malaria endemic area

According to (WHO consultant report) malaria in Punjab has reached at its lowest level where we can start for malaria elimination in the province (Health department GOP (2006)

3.1 Research Gap

This study seeks to fill this gap of knowledge and practices of youth in low- and middle-income districts like layyah district and how they prompt control and elimination of malaria.

4. Objectives

To access the knowledge, attitude and practices of youth about prevention and management of malaria in District Layyah

5. Material and Methods

Descriptive Cross Sectional study and 200 respondents were selected thorough random sampling techniques from Layyah. Data were analyzed by using SPSS program, version 20.The questionnaire was weighed against the database to check the accuracy of the data entry a minimum of two times. Any error found will be corrected before actual analysis. Descriptive statistics (frequency, percentage, mean and standard deviation) will be used primarily to summarize and describe the data to make it more graspable
Frequency distribution:

- Socio-demographic characteristics
- Level of Knowledge
- Attitude towards malaria

Table 1: Percentage and distribution of the respondents regarding their Age?

Categories	Frequency	Percent
21-25 years	94	47
26-30 years	77	38.5
31-35 years	27	14.5
Total	200	100.0

This table shows that respondents were 21-25 years old, 38.5% respondents were 26-30 years old and 14.5 % respondents. The researcher explored that majority of the responded were 21-25 years old at the time of the research.

Table 2: Percentage and distribution of the respondents regarding to Education Level

Categories	**Frequency**	**Percent**
Secondary	39	19.5
College	68	34
University	93	46.5
Total	**200**	**100.0**

This table shows that 19.5 % respondents were secondary education level and 34 % respondents were college education level and 46.5 % were at university level at the time of the study. The researcher explored that majority of the responded were university level at the time of the research.

Table 3: Percentage and distribution of the respondents regarding,
Where did you hear about Malaria?

Categories	Frequency	Percent
Posters	23	11.5
Newspapers	17	8.5
Radios	29	14.5
Health facility	9	4.5
Community meetings	20	10.0
Malaria Campaign	17	8.5
TV	85	42.5
Total	**200**	**100.0**

This table shows that 11.5 % respondents were heard about malaria though poster that display on wall and other places.8.5% responded were heard about malaria from newspaper, 14.5 % respondents were heard from radio, 4.5% respondents were heard about malaria from the health facility, 10% responded were heard about health community meeting, 8.5% responded were heard about malaria in malaria campaign and 42.5% responded were heard about malaria on TV. The researcher explored that majority of the responded were heard about malaria from TV at the time of the research.

Table 4: Percentage and distribution of the respondents regarding to transmit malaria

Categories	Frequency	Percent
Mosquito bites	189	94.5
Use of stagnant water	11	5.5
Total	**200**	**100.0**

This table shows that 94.5 % respondents were asked that malaria transmitted through mosquito bites and 5.5% respondents were asked that malaria transmitted through use of stagnant water. The researcher explored that majority of the responded were answered that malaria transmitted through mosquito bites at the time of research.

Table 5: Percentage and distribution of the respondents regarding to malaria can kill you, if it is untreated.

Categories	Frequency	Percent
Yes	183	91.5
No	11	5.5
Don't know	6	3
Total	**200**	**100.0**

This table shows that 91.5 % respondents were asked that malaria can kill, if proper treated and 5.5% respondents were asked that malaria cannot kill if it treated. And 3 % responded do not know about this. Researcher explored that majority of the responded were answered that malaria can kill if it treat properly.

Table 6: Percentage and distribution of the respondents regarding to the most common signs and symptoms in malaria infection.

Categories	**Frequency**	**Percent**
Headache	5	2.5
High temperature	109	54.5
Chills	17	8.5
Vomiting	17	8.5
Body pains	29	14.5
Loss of energy	23	11.5
Total	**200**	**100.0**

This table shows that 2.5 % respondents were answered that the most common signs and symptoms in malaria infection is Headache. 54.5% responded were answered that the most common signs and symptoms in malaria infection is High temperature.8.5% responded were answered chills, 8.5% responded answered vomiting, 14.5% responded were answered body pain and 11.5% responded were answered loss of energy. The researcher explored that majority of the responded were answered that that the most common signs and symptoms in malaria infection is High temperature at the time of research.

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Table 7: Percentage and distribution of the respondents regarding to Malaria is a disease that cannot be prevented.

Categories	**Frequency**	**Percent**
Strongly agree	23	11.5
Agree	23	11.5
Disagree	45	22.5
Strongly disagree	109	54.5
Total	**200**	**100.0**

This table shows that 11.5% respondents were Strongly Agree, and 11.5% were agree, 22.5% were Disagree and 54.5% respondents were Strongly Disagree, it mean 23 % Agreed/strongly agree and 77% were Disagree/Strongly disagree. The researcher explored that the majority of the respondents in research were disagreed that the Malaria is a disease that cannot be prevented.

Table 8: Percentage and distribution of the respondents regarding to only spraying is enough to prevent mosquito no need for other ways.

Categories	**Frequency**	**Percent**
Strongly agree	16	2.9
Agree	28	22.9
Neither agree nor disagree	13	8.6
Disagree	130	57.1
Strongly disagree	13	8.6

Categories	**Frequency**	**Percent**
Strongly agree	16	2.9
Agree	28	22.9
Neither agree nor disagree	13	8.6
Disagree	130	57.1
Strongly disagree	13	8.6
Total	**200**	**100.0**

This table shows that 2.9% respondents were Strongly Agree, and 22.9% were agree, 8.6% respondents don't know (Neither Agree nor Disagree) 57.1% were Disagree and 8.6% respondents were Strongly Disagree, it mean 25.8% Agreed/strongly agree and 65.7% were Disagree/Strongly disagree. The researcher explored that the majority of the respondents in research were disagreed that the only spraying is enough to prevent mosquito no need for other ways.

Table 10: Percentage and distribution of the respondents regarding to everybody has the chance to be infected with malaria disease

Categories	**Frequency**	**Percent**
Strongly Agree	21	31.4
Agree	169	65.7
Disagree	10	2.9
Total	**200**	**100.0**

This table shows that 31.4% respondents were Strongly Agree, and 65.7% were agree, 2.9% were Disagree, it mean 97.1% Agreed/strongly agree and 2.9% were Disagree. The researcher observed that the majority of the respondents in research were agreed that everybody has the chance to be infected with malaria disease.

Table 11: Percentage and distribution of the respondents regarding to Person who once got malaria disease cannot get malaria disease again

Categories	**Frequency**	**Percent**
Strongly agree	41	31.4
Agree	92	42.9
Neither agree nor disagree	30	5.7
Disagree	23	8.6
Strongly disagree	14	11.4
Total	**200**	**100.0**

This table shows that 31.4% respondents were Strongly Agree, 42.9% were agree, 5.7% respondents Don't know (Neither Agree nor Disagree), 8.6% were Disagree and 11.4% respondents were Strongly Disagree, it mean 74.3% Agreed/strongly agree and 20.0% were Disagree/Strongly disagree. The researcher explored that the majority of the respondents in research were greed that the Person who once got malaria disease cannot get malaria disease again.

Table 12: Percentage and distribution of the respondents regarding that impossible to recover completely from malaria disease

Categories	Frequency	Percent
Agree	40	28.5
Neither agree nor disagree	20	2.9
Disagree	70	34.3
Strongly disagree	70	34.3
Total	**200**	**100.0**

This table shows that 28.5% respondents were Agree, and 2.9% respondents don't know (Neither Agree nor Disagree) 34.3% were Disagree and 34.3% respondents were Strongly Disagree, it mean 28.5% Agreed and 68.6% were Disagree/Strongly disagree. The researcher explored that the majority of the respondents in research were disagreed that it is impossible to recover completely from malaria disease.

Table 13: Percentage and distribution of the respondents regarding to Sleeping in mosquito net doesn't give the guarantee of malaria prevention

Categories	Frequency	Percent
Strongly agree	40	11.4
Agree	130	57.1
Disagree	30	31.5
Total	**200**	**100.0**

This table shows that 11.4% respondents were Strongly Agree, 57.1% respondents were Agree, 31.5% were Disagree, it mean 68.5% Agreed and 31.5% were Disagree. The researcher explored that the majority of the respondents in research were agreed that the sleeping in mosquito net doesn't give the guarantee of malaria prevention.

Table 14: Percentage and distribution of the respondents regarding to what do you do? if you or one of your community member present some signs and symptoms of malaria

Categories	Frequency	Percent
Cold application	30	8.6
Give treatment	80	45.7
Transfer to health facility	80	42.9
Transfer to Pharmacy	10	2.9
Total	**200**	**100.0**

This table shows that 8.6% respondents were used cold application , 45.7% respondents were answered they give treatment, 42.9% respondents were gave response they refer the person with signs and symptoms of malaria to the healthy facility and 2.9% gave response that they refer to the pharmacy. The

majority of respondents were responded that they give treatment to the community member present some signs and symptoms of malaria.

Table 15: Percentage and distribution of the respondents regarding to malaria preventive measures do you utilize?

Categories	**Frequency**	**Percent**
Avoid stagnant water in the yard	6	17.1
Close windows	1	2.9
Hygiene	7	20.0
Spraying	12	34.3
Through continuous education	6	17.1
Use bed nets	3	8.6
Total	**200**	**100.0**

This table shows that 17.1% respondents answered that they will avoid stagnant water in the yard, 2.9% respondents were answered they will close the window for the prevention from malaria, 20.0% respondents responded they will focus on hygiene and 34.3% respondents answered that they will utilize spraying as a preventive measures, 17.1% agreed that through continuous education utilized for the preventive measures and 8.6% respondents said that bed nets also used for the prevention of malaria. The majority of respondents answered that they will utilized spraying as a malaria preventive measures.

Table 16: Percentage and distribution of the respondents regarding to the challenges do you face in your community in malaria prevention and management

Categories	**Frequency**	**Percent**
Few equipments/Drugs	27	17.1
Poverty	27	17.1
Low knowledge in domain	15	14.3
Illiterate people	95	37.1
Community accessibility	15	5.7
No incentive	21	8.6
Total	**00**	**100.0**

This table shows that 17.1% respondents were answered the challenges do you face in your community in malaria prevention and management is few equipment/Drugs, 17.1% responded were answered that due to poverty,14.3 % respondents were answered that the challenges do you face in your community in malaria prevention and management is low knowledge in domain, 37.5% respondents were answered that the challenges do you face in your community in malaria prevention and management is illiterate people, 5.7% responded were answered that the challenges do you face in your community in malaria prevention and management is community accessibility and 8.6 % responded were the challenges do you face in your community in malaria prevention and management is no incentive..

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