Original Research Article

TREATMENT SEEKING BEHAVIOR OF PREGNANT WOMEN ABOUT MALARIA IN LAYYAH

ABSTRACT

Background and Purpose: Malaria during pregnancy and childhood is the major public health problem and about half of the population is at risk of developing malaria in the world. During pregnancy, it causes severe anemia, low birth weight babies, abortion and many other severe complications. Knowledge plays main role to prevent this disease and therefore in this study health seeking behavior of pregnant women is explored to determine frequency of malaria suspected cases and the reasons for non-utilization of Government health facility in pregnant women.

Methods: A total 381 pregnant women were selected through multistage random sampling. A structured questionnaire was used to know about the knowledge and practice of pregnant women about malaria. A survey was conducted in union council Lohanch Nashaib of district Layyah. Data was collected and analyzed by using SPSS version 20.

Results: Knowledge was found poor in the majority of the respondents. The major sources of treatment was private health facilities. The major reasons of non-utilization of public health facilities were poor accessibility to find transport, trust on public medical providers, and their bad attitude.

Conclusion:
On the basis of these findings, it was concluded that malaria knowledge has shown to be an important factor for prevention and treatment seeking practices about malaria Health education and literacy promotion should strengthen the knowledge about malaria prevention and treatment seeking behavior.

Key Words: Malaria, Seeking behavior, public health, pregnant women, Layyah, Pakistan

INTRODUCTION

The health and economy of many developing countries are effected by malaria more, than any other disease. There were 5 million increase of malaria cases reported in 2016 than 2015 (211 million), and 216 million cases of malaria in 2016 (According to the latest World Malaria Report, released in November 2017). As WHO report 2017, 3.3 billion world population is at risk of malaria . Pakistan is one of the developing countries with low/moderate malaria endemicty. 3/4th of population in the rural areas are at risk (1). Between 2010 and 2016, WHO reported that estimated malaria cases were reduced more than 45%. In Pakistan, Afghanistan, India, Ethiopia, and Indonesia, 85% estimated *vivax* malaria cases occurred in 2016. Over the man's long history, it has been the disease that has most affected his health, economy & policies. It has killed more people than any other disease. It is a serious disease of wide distribution, genus *Plasmodium* has five species (*Plasmodium falciparum, P.vivax, P .ovale, P.malariae, and P.knowlesi*) that affect human. *P.falciparum* causes most severe form malaria with high fever & chills (2). The risk of premature delivery, spontaneous abortion, stillbirths, , , severe maternal anemia, 1/3rd of preventable low birth weight (LBW) babies & maternal death also increases with malaria in pregnancy (3). *P.vivax* is a wide spread but less dangerous type. Humans are infected with malaria by the bite of more than 30 female mosquitos of Anopheles species..Mostly infection during pregnancy in Africa is caused by *P.falciparum*, the most common malarial species in Africa (4). Annually 1 million or more people die of malaria & these are mostly infants, young children & pregnant women in Africa(5). Malaria is a threat for pregnant women & their babies, up to 200,000 newborn deaths each year as a result of malaria in pregnancy(6). Moreover, each year approximately 50 million women living in malaria endemic countries throughout the world become pregnant (7,8).

Now the first-line treatment is AS+SP for all countries in the WHO Eastern Mediterranean Region. Treatment failure rates with AS+SP were less than 10% in Afghanistan, Iran (Islamic Republic of), Pakistan and Yemen.

Layyah is a malaria endemic area, reports reviewed at the Executive District Officer Health office showed that there were 6145 malaria confirmed cases in 2010, & 921 malaria confirmed cases in 2011 & 421 malaria confirmed cases up till 31st August 2012(9).

Aim:-

To determine the treatment seeking behavior of pregnant women about malaria.

Objectives:-

To determine frequency of malaria suspected cases in pregnant women.

To ascertain treatment seeking behavior of pregnant women.

To determine the reasons for non-utilization of Government health facility

METHODOLOGY

Study was conducted in Layyah, which is located in the South Punjab in Dera Ghazi Khan Division, in Punjab, Pakistan(10). District Layyah is selected for this study because malaria is endemic here due to its riverine location & agriculture occupation of its population. All pregnant women in Layyah which were estimated to be as 3.4% of the population which were 4227. A descriptive Cross Sectional study was carried out. Adopted from WHO's Malaria case management, operations manual. Pregnant women with "fever history in the previous 3 days with no features of other severe diseases".

Inclusion Criteria:-

All pregnant women registered in LHWs register having good & complete records. All pregnant women from the 1st trimester to the last of 3rd trimester in study area. Pregnant women having history of fever were included.

Pregnant women with no history of fever or fever for last 3 days with or without symptoms of severe diseases, having same socio-demographic features were included as comparative group.

Exclusion Criteria:-

Pregnant women in the LHW register whose records were not updated.

Two Stage Sampling was done, estimated population of district Layyah was taken as 1491915. In the 1st stage, 14 BHUs were selected from the 12 union councils situated at the riverine belt of the Layyah which were the suspected breeding sites of the mosquitoes. In the 2nd stage by utilizing simple random sampling one Union Council Lohanch Nashaib located in the riverine belt was selected which was having a population of 30040 with estimated expected pregnant women population as 1021.

It was a 3 month study, carried out from 3rd week of September 2012 to end up in the 2nd week of December 2012. A semi structured standardized questionnaire in Urdu with multiple choices was developed from the questionnaires which have been used in earlier studies & from different

articles related to malaria in pregnancy. The questionnaire was pretested in the pregnant women of nearby union council Ehsan Pur.

Ethical Considerations:-

Written consent was taken on the prescribed Performa. Confidentiality was ensured. All the ethical guidelines regarding research on human subjects were followed. Institutional Review Board (IRB) of the Health Services Academy (HSA) Islamabad approved the Research proposal. from the

By quantitative methodology Data was analyzed by Statistical Package for Social Sciences (SPSS version 20). Descriptive Statistics (frequency, percentage) primarily summarize the data and make it more graspable.

RESULTS

381 pregnant women were interviewed who gave consent & become eligible for study. For the purpose of analysis we made 3 groups A, B and C, detail is given in table 1. Results of microscopy are given in table 2. Age wise data is given in table 3.

Table 1:- Summary of results

Total Sample Size	**No Fever**	**Suspected Malaria**	**Lab. Confirmed Malaria Cases**
	Group A	**Group B**	**Group C**
381	314	67	23

Table 2:- Results of Malarial Parasitology

Total No. of positive cases	***P.vivax***	***P.falciparum***	**Mixed**
23	16	4	3

Table 3:- Distribution of respondents according to age

Age (Y)	Total Respondents		Group A (No Fever)		Group B (Suspected Malaria)		Group C (Confirmed Malaria Cases)	
	No.	%	No.	%	No.	%	No.	%
< 20	22	5.8	19	6.1	3	4.5	1	4.3
20 – 39	338	88.7	277	88.2	61	91	21	91.4
40 – 49	19	5	16	5.1	3	4.5	1	4.3
> 50	2	0.5	2	0.6	0	0	0	0
Total	381	100	314	100	67	100	23	100

Good knowledge about malaria was found good in 7.3% in group A, 6% in group B and 4.3 % in group C it seems gradually decreasing from group A to group C. On the average only 17.6 % of respondents have good knowledge. Proportion of good knowledge was found high in group A. Knowledge about malaria was found satisfactory was 43.3 % in group A, 58.2 % in group B and 56.5% in group C. On an average 53% of the respondents have satisfactory knowledge. Proportion of satisfactory knowledge was found high in group B. Poor knowledge about malaria was found 49.4% in group A, 35.5% in group B and 39.1% in group C. Group A was ranked higher in poor knowledge. On an average knowledge about malaria was found poor in 41.4% of the respondents (Figure 1).

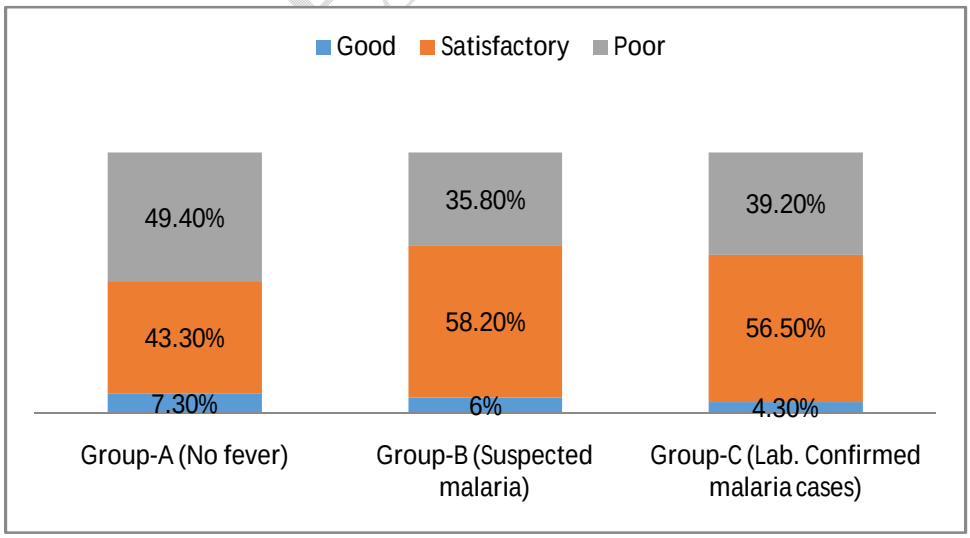

Figure 1:- Knowledge distribution among groups about malaria

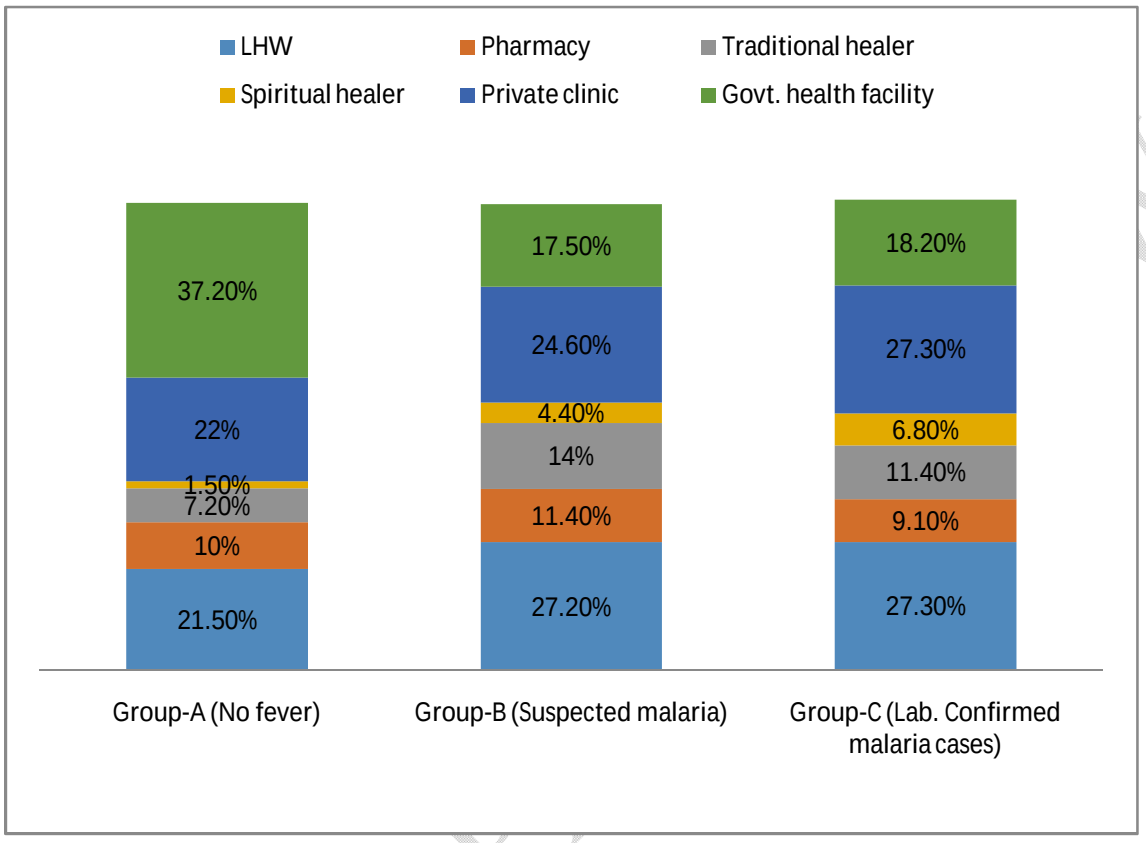

Figure 2:- Treatment seeking sources of pregnant women among groups

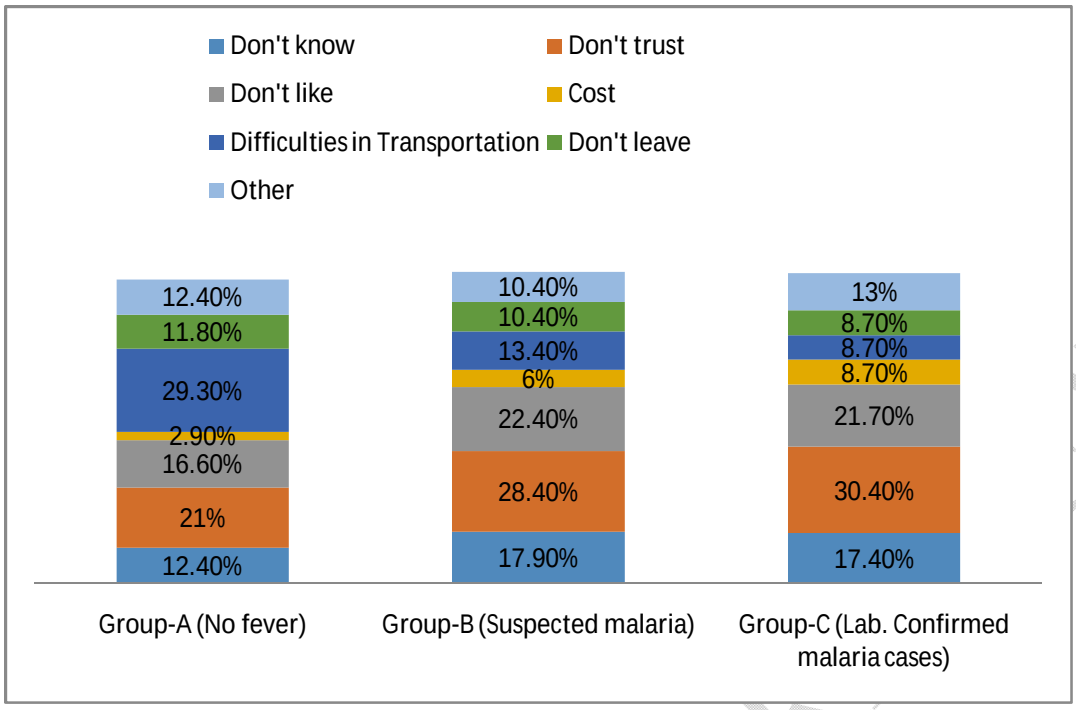

Figure 3:- Reasons of non-utilization of Gov. health facilities among group of pregnant women

It was found that almost one classical symptom of malaria was recognized by pregnant women. The largest recognition in group A was found about 78% for chills and rigors followed by fever 72%. In group recognition for chills and rigor was 81% and for fever was 76% which was far better from other 2 groups. In group C it was 78% for chills and rigors and 76% for fever. The knowledge about transmission of malaria was found good among all the groups i.e. 98.4% in group A, 95.5% in group B and 91.3% in group C. On the average about 95% of the respondents recognized mosquitoes as malaria transmitter in human beings. 75.2% in group A, 73.1% in group B and in group C 78.3% use bed net as a measure to prevent from mosquitoes' bite which was found about similar within groups. The average 75.5% of the respondents used bed net.

In group A the source of treatment seeking about malaria was found Gov. Health Facility after that the source was from private clinic i.e. 37.2% and also a large proportion in this group utilize LHWs as the treatment seeking source of malaria(21.5%). In group B the treatment seeking source of the majority was found from LHWs(27.3%) after that the private clinic was found the other big source of treatment seeking malaria (24.6%). Only 17.5% utilize Gov. Health Facility

as a source of treatment seeking about malaria. In the group C situation was found same as in group B i.e. LHWs (27.3%), private clinic (27.3%) and Gov. Health Facility (18.2%). A small proportion of people also utilize the other source like pharmacy traditional healers etc.

In group A the major cause of non-utilization of the Gov. Health facility was found difficulty in transportation (29.3%) after that the cause was found that they don't trust on Gov. medical workers (21%) and they don't like the attitude of Gov. medical workers (16.6%). In group B the major cause was found that they don't trust Gov. medical workers (28.4%) and they don't like the attitude of the Gov. medical (workers 22.4%) while the difficulty in transportation was found the 3rd major cause (13.4%). In group C the reasons of non-utilization of Gov. health facilities were found similar as in group B i.e., don't trust on Gov. medical workers (30.4%), don't like the attitude of Gov. medical workers (21.7%) and difficulty in transportation (8.7%).

DISCUSSION

This study revealed that majority of the respondents interviewed were 20-39 (88.2%) years of age. This indicates that the respondents were adult and of the child bearing age having a relative poor (47%) knowledge about malaria in pregnant women. Different results of similar studies conducted among pregnant women in rural area of Ethopia were found in which knowledge was found good about malaria in pregnant women (11). The reasons of different result were different social and demographic characteristics of the population and the educational status which was low in our study. 78-81% pregnant women in our study were aware of at least one classic symptom of malaria in our study while it was 92.7% in the similar study(12). In some other similar studies where knowledge about malaria was found good but poor for the consequences of malaria supported the findings of our study that the poor knowledge has a serious implication and is likely to affect the utilization of treatment seeking by the pregnant women(13,14)

In our study it was found that only 50% of pregnant women utilize Gov. health facilities for the treatment of malaria. The major reasons of non-utilization of the Gov. health facilities were found difficulty in transportation (29.3%) followed by lack of trust on Gov. medical workers (21%) and dis- likeness of attitude of Gov. medical workers (16.6%) might reflect issues of accessibility and quality in Gov. health facilities. Health seeking behavior in different countries regarding malaria treatment was found different(15). In another similar study where Gov. health facilities were found easily accessible to the pregnant women as on ten minutes of walking

distance or by public transport on minimal fare but the utilization is low is likewise our study that the Gov. health facility was available nearby but utilization was poor, we found that this might be due to distrust on and dislikeness of Gov. medical workers(16)

Malaria program coordinator should focus on awareness campaign about knowledge of malaria and radio broadcasting health messages. Answers might have been varied in cross sectional design because it gives information at certain point in different malaria seasons and time. Data was competed from the information given by the interviewers.

CONCLUSION

Knowledge about malaria is an important factor for its prevention. Promotion of literacy and health education about malaria transmission and prevention method should be strengthened.

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