ORIGINAL ARTICLE

KAP STUDY ON MALARIA

Sheraz Jamal Khan, Muhammad Usman, Yasir Abbass, Muhammad Hussain, Mumtaz Ali
Department of Medicine, Khyber Girls Medical College, Peshawar, Pakistan

ABSTRACT

Background: Knowledge, attitude and practices study about common diseases like malaria is a cost effective way to create awareness in the community. This study was conducted to know the knowledge, attitude and practices regarding malaria in our community.

Methodology: The study was conducted in the private clinic of the author. A structured questionnaire was used which contained detailed information about the demography, knowledge, attitude and practice of patients presenting with fever. This was translated to the patient and filled in by the author.

Results: Almost all the study subjects knew facts about malaria and all knew about at least one of the symptoms of malaria and 50% knew about three or more cardinal symptoms. Most of them (74%) also knew that blood test should be done to diagnose malaria. Most of the patients (76%) also knew that mosquitoes were the vectors. The knowledge about treatment was good too as 90% could name the drugs. Only 20% knew about prevention and 20% knew about the use of nets but more than 80% did not know about chemoprophylaxis.

Conclusion: The knowledge, attitude and practice about malaria has only few loop holes which can easily be corrected through mass awareness about chemoprophylaxis and the use of nets and control of vector.

KEY WORDS: Malaria, KAP study, Chemoprophylaxis.

INTRODUCTION

Malaria remains a significant cause of human mortality and morbidity even in the wake of increasing research carried on in recent times. New drugs and vaccines are needed but more than that effective vector control and education of the community about the deadly disease is the need of the day. Effective control measures in light of an understanding of the mechanisms underlying human–parasite and vector–parasite interactions are all required to get a step closer to the ultimate goal of eradicating this disease.[1]

Because of a nationwide malaria eradication campaign launched in 1961, malaria was nearly eliminated in Pakistan during the 1960s. Financial and administrative constraints and misadventures led to an explosive resurgence of malaria in the 1970s, reaching epidemic proportion in 1972-73. In 1975, the strategy switched from eradication to control when malaria control interventions were integrated into the primary health care system.

Malaria continues to be a major public health problem in Pakistan since then. Extensive agricultural practices, a vast irrigation network and monsoon rains have considerably added to the malariogenic potential in many areas. Both P. falciparum and P. vivax are widely distributed.

The Roll Back Malaria (RBM) partnership was launched in 1998 with the goal of reducing the burden of malaria by half by 2010.[2] It is a global control strategy with an emphasis on areas where malaria is endemic and was launched in many African and Asian countries including Pakistan.[3] Pakistan joined the RBM in 2001.[4] It encompassed a comprehensive approach that included prompt and effective case management, selective vector control, epidemic management and control, environmental management and personal protection through the use of insecticide-treated nets (ITNs). The results are not forthcoming and seem unachievable according to the time frames given. 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 1.6 million cases per year.[5]

Environmental factors and behavioral patterns of vectors and human populations combine to provide favorable conditions for malaria transmission. While much is known about the vector biology and behavior, the host behavior is largely overlooked.

This failure to consider community attitudes and beliefs about malaria has contributed to the inability of programs to achieve sustainable control. Studies on knowledge, attitude and practices

(KAP) have demonstrated that direct interaction with community plays an important role in controlling malaria spread.

This study was conducted to know the knowledge, attitude and practices regarding malaria in our community.

MATERIAL AND METHODS

It was descriptive cross-sectional study. We used a structured questionnaire which had easy to answer questions on demographic data, basic knowledge about malaria, easily recognizable and remembered symptoms of malaria, its transmissibility, preventive measures on malaria, mosquito nets and health seeking behavior of the patients.

The study selected 51 consecutive patients during the post monsoon malaria season during July to November, 2009. These patients were seen as out- patients in the private clinic of the author. The self administered questionnaire was filled by the author himself after asking the questions.

All data were entered and analyzed through SPSS version 15. Age was presented as mean + SD while categorical variables like Gender, education, occupation and all questions were presented as frequencies and percentages.

Table 1: Demographic characteristics of patients in KAP study on malaria. (n=51)

Variables	Number	Percentage
Gender		
Male	24	52.9
Female	24	47.1
Age (mean + SD)	41 + 14.9	
Education		
Uneducated	13	25.5
Below Matric	1	2
Matriculate	6	11.8
Intermediate	17	33.3
Graduate	9	17.6
Masters	5	9.8
Occupation		
Housewife	16	31.3%
Teacher	12	23.5%
Farmer	8	15.7%
Student	5	9.8%
Private	8	15.7%
Business	2	4%

RESULTS

Of the 51 patients studies 27 (52.9%) were males and 24 (47.1%) were females. The mean age of all the patients was 41 + 14.9 years. The demographic characteristics are given in Table 1.

Ninety eight percent of the patients knew about the disease. All patients could name at least one symptom of malaria with 23% naming three cardinal symptoms and 35% knew about four symptoms.

Seventy four percent of the patients knew that blood test should be done for malaria.

Majority (i.e. 75%) of the patients knew about mosquito as the cause of malaria. Two to six percent of patients also thought that other organisms were involved. All of them did not know plasmodium as the causative organism.

Table 2: Knowledge of the cardinal symptoms of malaria.

Q: what are the cardinal symptoms of malaria?	Number	Percentage
Fever	7	13.7
Rigors	1	2.0
Fever + Rigors	11	21.6
Fever + Rigors + Headache	12	23.5
All (Fever + Rigors + Headache + Confusion)	18	35.3
Fever + Headache	2	3.9
Total	51	100

Table 3: Tests for malaria.

Q: What test needs to be done to detect Malaria?	Number	Percentage
Blood	38	74.5
Urine	2	3.9
Blood + Urine	4	7.8
Blood + Urine + X-ray	2	3.9
Blood + Urine + Ultrasound	1	2.0
All (Blood + Urine + X-ray + Ultrasound)	3	5.9
Blood + X-ray	1	2.0
Total	51	100

Table 4: Causative agent in Malaria.

Q: What is the cause of Malaria?	Number	Percentage
Mosquito	39	76.5
Bacteria	1	2.0
Virus	1	2.0
Mosquito + Bacteria	2	3.9
Mosquito + Virus	3	5.9
Mosquito + Fly	1	2.0
Mosquito + Virus + Fly	1	2.0
Mosquito + Bacteria + Virus	1	2.0
Plasmodium	0	0.0
All (Mosquito + Bacteria + Virus + Fly)	2	4.0
Total	51	100

Table 5: Transmission of malaria:

Q: What is the mode of transmission of Malaria?	Number	Percentage
Person to Person	3	5.9
Through Food	6	11.8
Through Mosquitoes	28	54.9
Person to Person +	7	13.7
Through mosquitoes		
Person to Person +	2	3.9
Through flies		
Through flies + Through	3	5.9
mosquitoes		
All	2	4.0
Total	51	100

Fifty five percent of patients knew that transmission occurs through mosquitoes.

All the patients could name at least one drug for malaria with 50% knowing two or more drugs.

The knowledge and practice about "what to do?" when someone suffers from fever was varied and from setting up an infusion in 20% to taking him to a doctor in 35%.

Thirty five percent of people had no knowledge about the prevention of malaria while 55%

Table 6: Treatment of malaria:

Q: What is the treatment of malaria?	Number	Percentage
Quinine	6	11.8
Other Anti Malarials	7	13.7
Paracetamol	2	3.9
Quinine + Other	9	17.6
Anti Malarials		
Quinine + Paracetamol	3	5.9
Quinine + Paracetamol+	16	31.4
Artemether		
Quinine + Paracetamol+	8	15.7
Artemether + Infusion		
Total	51	100

Table 7: Management during febrile illness.

Q: What do you do when a person from your family suffers from fever?	Number	Percentage
Put him/her an infusion	9	17.6
Take him/her to a doctor	1	2.0
Get him an injection for fever + Put him/her an infusion + Take him/her to a doctor	17	33.3
Get him an injection for fever + Take him/her to a doctor + Do cold sponging	1	2.0
Get him an injection for fever + Put him/her an infusion	11	21.6
Put him/her an infusion + Take him/her to a doctor	1	2.0
Get him an injection for fever+ Do cold sponging	1	2.0
Get him an injection for fever + Put him/her an infusion + Take him/her to a doctor + Do cold sponging	8	15.7
Get him an injection for fever + Take him/her to a doctor	2	3.9
Total	51	100

Table 8: Prevention of malaria:

Q: What do you do to prevent malaria in your area?	Number	Percentage
Nothing	16	31.4
Clean non-stagnant Water	13	25.5
Nets	3	5.9
Clean non-stagnant Water + Nets	8	15.7
Clean non-stagnant Water + Nets + MP	7	13.8
Clean non-stagnant Water + Malaria Prophylaxis	2	3.9
Nets+Malaria Prophylaxis	2	3.9
Total	51	100

Table 9: Knowledge about health care worker.

Q: How often health you are visited by health care worker?	Number	Percentage
Never	24	47.1
Sometimes	14	27.5
Don't know who is a health care worker	13	25.5
Total	51	100.0

knew about clean non stagnant water and 35% knew about the use of nets. Seven percent knew about malaria prophylaxis.

Twenty five percent of people did not know about a health care worker and 47% denied having seen ahealth care worker visiting their area.

DISCUSSION

The objective of the national malaria control program is to reduce morbidity and mortality due to malaria to a level that it is no longer a public health problem in the country.

Key success factors for this goal are; clear knowledge on the clinical manifestation of malaria and early care seeking behavior. Positive health seeking behavior is critical in successful case management.

The objective of this study was to investigate the knowledge, attitudes and practices of the community toward malaria so as to develop a cost effective behavioral change community strategy for community based malaria control. Knowledge of clinical manifestations, mode of transmission and causation of malaria is satisfactory. However, the practice of the use of mosquito bed nets, knowledge of environmental measures and knowledge about vector was lower than expected.

This study demonstrated that knowledge of clinical manifestations of malaria and its preventive measures was high than its possible prevention. This increased awareness of these clinical features of malaria might be due to increased access to media.

Nearly all of the subjects knew that mosquito bite was the mode of transmission of malaria. This demonstrated high level of knowledge on causation of malaria.

Greater knowledge about malaria causation, symptoms and prevention does not necessary translate into improved practice of preventive measures. Similar studies in different societies, especially in poor nations have almost similar results.[6-11] The Knowledge about the disease along with the factors responsible for its transmission and even health seeking behavior is quite adequate but the knowledge about prevention and practices in health seeking measures is scanty.

CONCLUSION

Based on the findings from this study it can be concluded that the subjects were familiar with the symptoms of malaria, mode of transmission and health seeking behavior was adequate. The knowledge about prophylaxis and vector control was grossly deficient. Similarly most of them did not even know about community health care worker and malaria control program officer. The situation is pathetic as there are gross misappropriations in malaria control and eradication program which need to be strengthened.

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Corresponding author:

Dr. S. Sheraz Jamal

Assoc. Prof.

Department of Medicine

Khyber Girls Medical College

Peshawar, Pakistan

E-mail: