ORIGINAL ARTICLE

KNOWLEDGE, ATTITUDE AND PRACTICE ABOUT DENGUE FEVER AMONG LOCAL POPULATION

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ABSTRACT

Background: Dengue fever is a mosquito-borne infection that in recent decades have become an important global public health issue. It can be fatal but preventable. Public awareness, perception and behaviour play important role in its prevention and this KAP survey was done to asses this.

Material & Methods: This descriptive cross-sectional survey was carried out in Department of Community Medicine, Gomal Medical College, D.I.Khan from January 1, 2015 to April 30, 2015. A total of 100 respondents (patients/ attendants) were selected by convenient sampling technique. Data was collected on a self administered questionnaire having nominal scale. Data was collected from local population at medical OPD of DHQ Teaching Hospital, D.I.Khan. Informed consent was taken from all respondents. Socio-demographic variables were age groups, gender, education, income of family, residence, language. Research variables were knowledge, attitude and practice. Scale used was nominal. Data was expressed in frequency, percentages and overall mean percentage. SPSS version 19 was used for descriptive data analysis.

Results: All 100 respondents were interviewed and there was no missing data. Among 100 respondents 32% were males and 68% were females, 14% were illiterate, attended school 32%, college 24%, university 30%. Urbans were 68%, 32% were rural. 46%, 34% and 20% were Saraiki, Pushto and Urdu speaking respectively. 38%, 40% and 22% belonged to poor, middle and high income group. Overall knowledge about dengue disease was 60%, positive attitude was 92% and overall practice was 90%.

Conclusion: Key findings of this study are that knowledge is low. Public be educated about dengue disease and its prevention utilizing all sources of information employing mass media, print as well as electronic. Health department must assume a leadership role in this regard.

KEY WORDS: Knowledge; Attitude; Dengue.

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INTRODUCTION

Dengue is a mosquito-borne infection that has emerged as major public health issue recently.[1-3] This escalating health issue is becoming most common disease affecting urban and periurban areas of tropical and subtropical regions.[4,5] It is more prevalent in south east Asia, America, Africa and Caribbean island.[6,7] In the last 50 years, global warming has increased its endemicity to 30 folds.[8] Annually about 50 million dengue infection are estimated and 2.5 billion people live in dengue hit countries.[9-11] It is prevalent in more than 100 countries across the tropical belt.so this virus and its vector has world wide distribution.[12,13]

Main forms of dengue disease are, more severe dengue haemorrhagic fever, and dengue shock syndrome in very severe cases associated with 40% to 50% fatality.[7] Main vector is Aedes aegypti mosquito along with Aedes albopictus that are usually found in manmade containers like flower vases, water storage jars, un used toilet bowls, etc. It is daytime feeder with peak incidence in dawn and before dusk.[14] Virus has got 4 serotypes. Infection with one serotype gives you life long immunity against reinfection by same serotype but not against other serotypes. So you can have disease several times during your lifetime.[7]

In Pakistan first case of dengue was reported in Karachi in 1994.[15] Since then it is the most rapidly spreading vector borne viral disease in Pakistan. Reasons are multiple; uncontrolled population

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growth and urbanization leading to overcrowded cities without proper water management, non-existence of effective mosquito control program, and increase in international trade and travel.[16,17] From 1995 to 2004 only 699 cases of dengue were reported from three districts of Pakistan. There was a dramatic increase in cases and deaths to 55946 and 539 respectively, affecting 105 out of 146 districts/agencies/ territories.[18,19] Although dengue can be severe but it is preventable. Its outbreaks can be prevented / minimized if people have good knowledge, positive attitude and healthy behavior.[20]

As no definite treatment or vaccine is available, preventive and protective strategies remain the mainstay of problem. Considering peculiar epidemiological situation and socioeconomic conditions of D.I.Khan, our objective is assessment of knowledge, perception and behaviour of population as so far no data of KAP of people in our local area is available here. So conduction of such study is very important in designing effective control strategies for future prevention of this problem.

MATERIAL AND METHODS

This KAP model, cross sectional survey was carried out in department of Community Medicine, Gomal Medical College, D.I.Khan from January 1, 2015 to April 30, 2015. A total of 100 respondents (patients/ attendants) were selected by convenient sampling technique. Only those who belonged to district D.I. Khan were included in study. Those who were not willing to participate in study were excluded from study. Data was collected on a self administered questionnaire having nominal scale. Data was collected from local population at medical OPD of DHQ Teaching Hospital, D.I.Khan. Informed consent was taken from all respondents. Socio-demographic variables were age groups, gender, education, income of family, residence, language. Research variables were knowledge, attitude and practice. Criteria of 100% practice was use of at least one defensive and one offensive protective measure against mosquito. Scale used was nominal. SPSS version 19 was used for descriptive data analysis. Data was expressed in frequency, percentages and overall mean percentage.

RESULTS

All the 100 respondents were interviewed and there was no missing data. Among these 32 (32%) were males and 68 (68%) females. Further 14 (14%) of respondents were illiterate, 32 (32%) attended the school, 24 (24%) had college level education and 30 (30%) attended university. Unbans were 68 (68%) and rural 32 (32%). Forty-six (46%), 34 (34%) and 20 (20%) were Saraiki, Pushto and Urdu speaking respectively. Forty-two (42%), 44 (44%) and 14 (14%) belonged to age group 15-25, 26-45 and above 45 respectively. Thirty-eight (38%), 40 (40%) and 22 (22%) belonged to poor, middle and upper class respectively.

Out of 100 respondents 94(94%) correctly identified high grade fever as a symptom of dengue fever while 74 (74%) identified severe aches and pains and 11 (11%) identified bleeding from nose or mouth. Twenty-four (24%) correctly rejected diarrhea and 20 (20%) yellow eyes as a symptom. Forty (40%) and 34 (34%) knew that no definite treatment or vaccine is available respectively. Forty-four (44%) correctly said that aspirin is contraindicated in dengue fever. Ninety-six (96%) respondents correctly identified mosquito as source of transmission but majority considered other sources along with mosquito such as garbage 58 (58%), flies 8 (8%), unclean water/ food 58 (58%) to be responsible. Seventy (70%) acknowledged stagnant water but 42 (42%) acknowledged that standing clean water in pots, coolers, discarded bottles etc as breeding place of mosquito. Forty-six (46%) acknowledged day as usual time of biting for dengue mosquito and 74 (74%) identified rainy hot season for peak incidence. All (100%) of respondents knew about one or other method of protection against mosquito bite or to kill mosquito, full sleeves and trousers 92 (92%), coils 88 (88%), repellants 70 (70%), bed nets 96 (96%), fans 80 (80%), sprays 96 (96%), screening of houses 74 (74%), covering of water containers 52 (52%) and discarding items that can hold water 34 (34%), checking coolers or flower pot for breeding 13 (13%). Overall knowledge about DD was 60%.

Regarding attitude, 96 (96%) of respondents perceive Dengue can be life threatening and 90 (90%) think prevention is very important if no definite treatment or vaccine is available. 90% think they need to know more about dengue disease. Overall attitude was 92%.

Regarding practice, all 100 (100%) respondents got information about Dengue from multiple sources with electronic media being at the top with 86 (86%) score, newspaper 12 (12%), friends and relatives 50 (50%), health care provider 14 (14%). Regarding measures of protection 96 (96%) of respondents were using multiple measures of protection. 86 (86%) were wearing full sleeves and trousers, 70 (70%) were using coils, 20 (20%) applied repellants, 22 (22%) used insecticidal sprays, 16 (16%) used electric pest killers, 100 (100%) used fans, 12 (12%) screened their houses, 46 (46%) used bed nets, 88(88%) covered water containers, 36 (36%) discarded waste items that can hold water. Thirteen (13%) checked flower pots/coolers for breeding of mosquito. Forty (40%) cooperated with others in maintaining clean environment. Overall practice about Dengue was 90%.

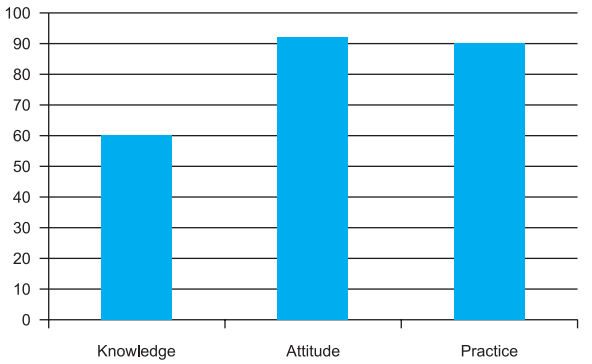

Figure 1: Overall Knowledge, Attitude and Practice regarding Dengue in local population of D. I. Khan.

DISCUSSION

This study was conducted to assess public knowledge, attitude and practice regarding dengue infection. Our study suggested a fair level of knowledge (60%) but practice of protective measures was high (90%). The reason may be high prevalence of malaria in our region, so people are practicing some measure against mosquito.

In our study 94% identified fever, severe aches and pains 74% and bleeding tendency 11%. Findings regarding fever are consistent with findings of Itrat et al and Zameer et al, fever (81%-88%), in a study by Itrat et al 21% identified pains and 41% identified bleeding tendency in contrast to our study.[21,14] Awareness about mosquito as a vector was 96% in our study. This awareness was also high in studies done by Itrat et al, Zameer et al, Qureshi et al (82,70,92% respectively).[21,14,12] In our study 42% identified stagnant clean water as breeding place of mosquito, awareness was 48% and 72% in two studies conducted in Lahore.[14,21] 46% identified it to be a day biter in contrast to 85% in study by Gunasekara et al. Reason may be many years of exposure to disease by Srilankans as compared to us.74% acknowledged disease is common in rainy hot season, findings similar to those in a study conducted in Laos.[20] 44% knew aspirin is contraindicated while in study by Shuaib et al 33% and in a Srilankan study 42% knew that.[7,3] electronic media remained the most important source of information in study by us, and same reported in studies by Matta et al, Malhotra et al.[22,23] Knowledge about protective measures in our study and in study conducted by Badar et al are nearly similar, coil (88% 86%), sprays (96% 94%), repellants (70% 86%) screening (74% 98%) full sleeves and trousers (92% 92%) respectively.[5]

Regarding attitude 96% think it to be fatal disease and 90% think its prevention is very important, results similar to study conducted in Laos.[20]

Practice level regarding use of any measure of protection was high in our study because majority of respondents were literate, of middle class and young, but low cost methods were more preferred and no cost methods like checking coolers or flower pots for mosquito breeding, discarding waste items that can hold water were less practiced because of poor knowledge about them. Use of full sleeves and trousers was relatively low as compared to knowledge; reason may be hot climate in our area.

CONCLUSION

Key findings of this study are that knowledge is low. Public be educated about dengue disease and its prevention utilizing all sources of information employing mass media, print as well as electronic. Health department must assume a leadership role in this regard.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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