Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

Community Mobilization for Malaria Elimination in Shireen Jinnah Colony, Karachi Pakistan

[1]Saima Salim, [2]Sana Saleem, [3]Abdullah Mohsin, [4]Muhammed Zahir Shah, [5]Afzal Khan, [6]Shireen Arif, [7]Adeel Ilyas

[1,2,3,4,5] Registered Nurse (BSN), [6,7]Senior Nursing Instructor

Abstract: **Malaria is endemic in Pakistan, however many efforts have been done from decades (WHO, 2013). This study was conducted on the prevention of malaria in Shireen Jinnah colony located in the Gulshan, Sikandarabad, Karachi, Pakistan. Similarly, malaria is one of the prone diseases that can spread in the community because there was stagnant water in the streets that enhance the breeding of mosquitoes and unclean homes that increase the risk of malaria.**

Aim of Study: The aim of our study was to mobilize community members to prevent community from malaria.

Methodology: 50 females were selected through convenient sampling. Using cross sectional study type a questionnaire was filled up by all participants from the community.

Results: The result is that out of 50 participants 66% ever suffer from malaria and 40% are suffering from malaria in community. Moreover, 72% have knowledge that it is a preventable disease. About 100% have admitted that there are mosquitoes on community and 80% said that mosquitoes present in their homes. Additionally, 60% claimed on stagnant water present in community, 32% said about prevention committee comes in their community. About 44% use coil, 32% use spray, 14% use net and 10% use other measure to control malaria.

Conclusion: In conclusion, participants were suffering from malaria and there were many risk factors that increase the risk of malaria. The people had enough knowledge of ways to prevent malaria as they use net, spray and coils to prevent themselves from mosquitoes.

Keywords: **Community Mobilization, Malaria Elimination, Shireen Jinnah colony.**

1. INTRODUCTION

Malaria is a disease that can be caused and spread by the mosquito bite, female Anopheles mosquito which can cause fever, chills, cough and weakness[3]. Malaria is considered as the one of the most prone disease that can be a leading cause of death among the young children and pregnant women[18].It can be preventable and curable but if left untreated it can lead to severe complications and become a source of death[3]. It is estimated that about 40% of world's population affected from malaria in each year[18]. Moreover, about 350 - 500 million of cases of malaria identified every year. It is most common in poor, tropical and sub- tropical countries the most significant risk areas are central and south America, Africa, south and south East Asia, Middle East and Oceania[10]. In Pakistan 2005, LHWs treated 4.3 million cases of malaria and about 12.5% of total disease burden in Pakistan in 2006[8]. According to CDC, from 2000 to 2012 about 3.3 million lives saved due to preventive interventions worldwide. Malaria can be controlled by using preventive measures[3]. In addition, many activities interventions like The Global Fund, World Bank, World Health Organization, Roll Back Malaria, UNICEF and Malaria Initiative are working together in order to save lives from malaria by using preventive interventions[10].

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

2. LITERATURE REVIEW

Malaria is a preventable disease. There are many literatures that emphasize on the preventive measure to control the spread of malaria. The quantitative and qualitative study was conducted in Vanuatu on 202 participants on the uses of preventive measure to control malaria, about 70% use insecticide containing coils, 50% use Insecticide Treating Nets (ITN), 35% use mesh screens, 5% use smoke, 3% do personal cleanness and 5% are not using any preventive measure[4,19,20] .

According to the National Health Service, ABCD approach is apply for prevention of malaria that can be explained as "A" is the awareness of risk A is the awareness of risk, B is the Bite prevention, C is Check anti-malarial drugs and D is Diagnosis Early[14].

Furthermore, insecticide containing nets are mostly preferred in pregnant women as it advices that pregnant mothers should sleep under the ITN to prevent from malaria[9,13].

According to the literature review the avoiding of standing water can play an important role in the prevention of malaria because mosquitoes can lay eggs and they can bread on the water surfaces so that it can enhance the risk of increasing mosquitoes[12].

Moreover, DEET (N, N-diethyl-m-toluamide) containing creams and spray can reduce the risk of malaria[5].In addition it is consider as one of the most important bite preventive treatment as atleast 30% to 50% DEET containing insect repellents repel the mosquitoes when it can apply to exposed skin[15].

According to National Health Services the anti malarial drugs can also help in the prevention of malaria, as it is estimated that it reduce 90% risk of infection[14].

Furthermore, interior walls of the house should be sprayed annually, as indoor residual spraying (IRS) is the important part of the mosquito control and it should be sprayed in the interior surface of wall and roof and also on the exterior surfaces of doors and windows[17,21].

Moreover, Research Triangle Institute (RTI) organizes 379 spray operators and conducts the spray activities between June and August 2006, about 103,329 houses were sprayed and the result was that about 488,502 residents being protected from malaria[11].

From the literature reviews the use of long trousers, long sleeved clothes and socks can also plays a crucial role in prevention of malarial mosquitoes[15].

3. METHODOLOGY

This study was conducted on the prevention of malaria in the Shireen Jinnah community. A quantitative, cross sectional study was conducted among the residents of the community by using a questionnaire on the prevention of malaria in the community. The questionnaire information was based on the knowledge of malaria prevention and teaching will be given to the community about the preventive measures for the elimination of malaria from community. The Convenient sampling method is used for 50 (n) participants. The data were analyzed by using Statistical Package for Social Sciences (SPSS Version 22). The inclusive criteria are the residents of community and the exclusive criterion contains the outsiders of Shireen Jinnah community.

DATA ANALYSIS:

This figure 1 shows that how many people ever suffered from malaria in their families, total 50 respondents were questioned, 33 out of 50 people had ever suffered from malaria in their family and 17 out of 50 people had not ever suffered from malaria.

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

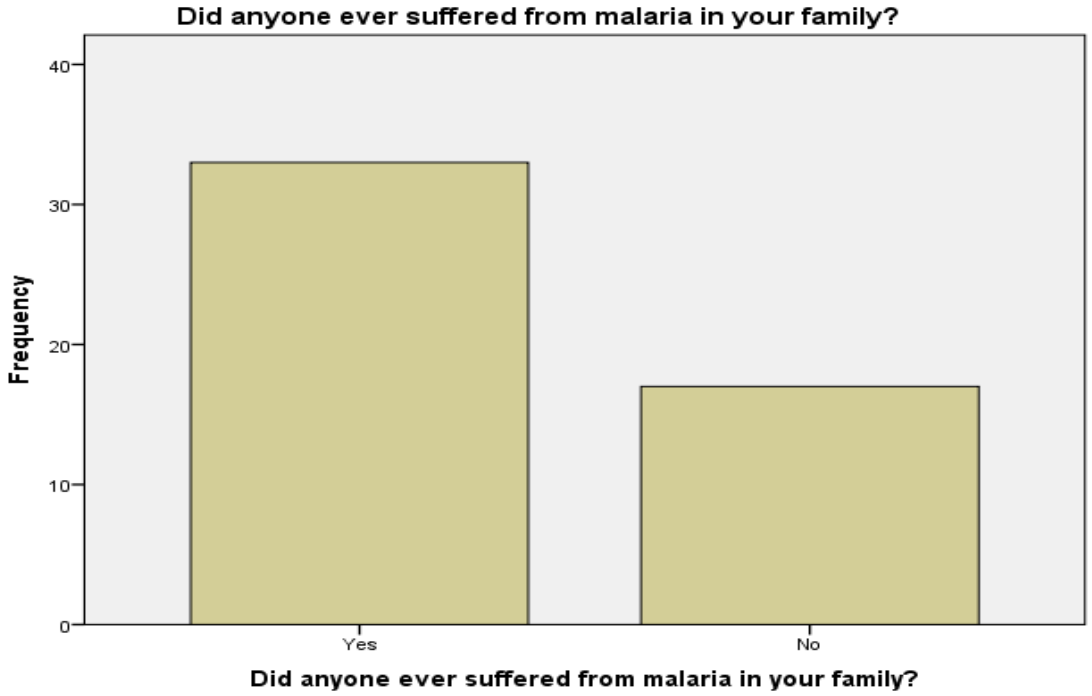

Figure 1:

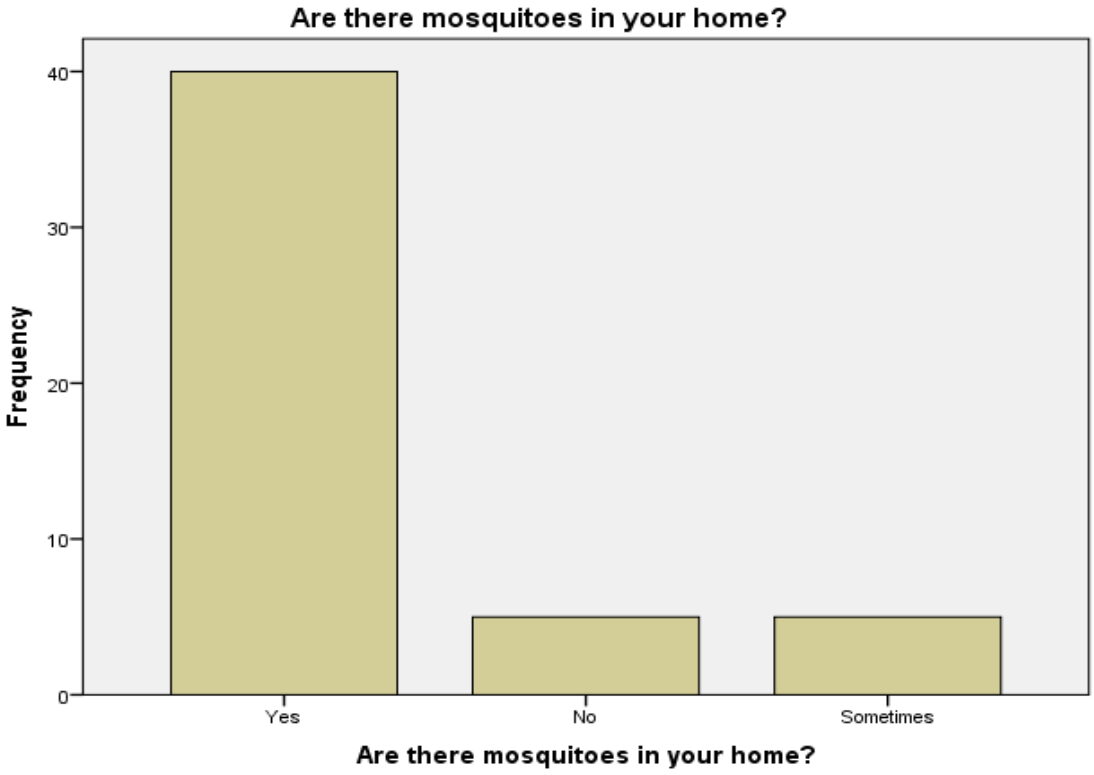

Figure 2:

The figure 2 explains that are there mosquitoes in their homes, about forty participants agreed that there are mosquitoes in their homes and five participants were disagree that there is no mosquitoes and remaining five were respond that sometimes there are mosquitoes in their homes.

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

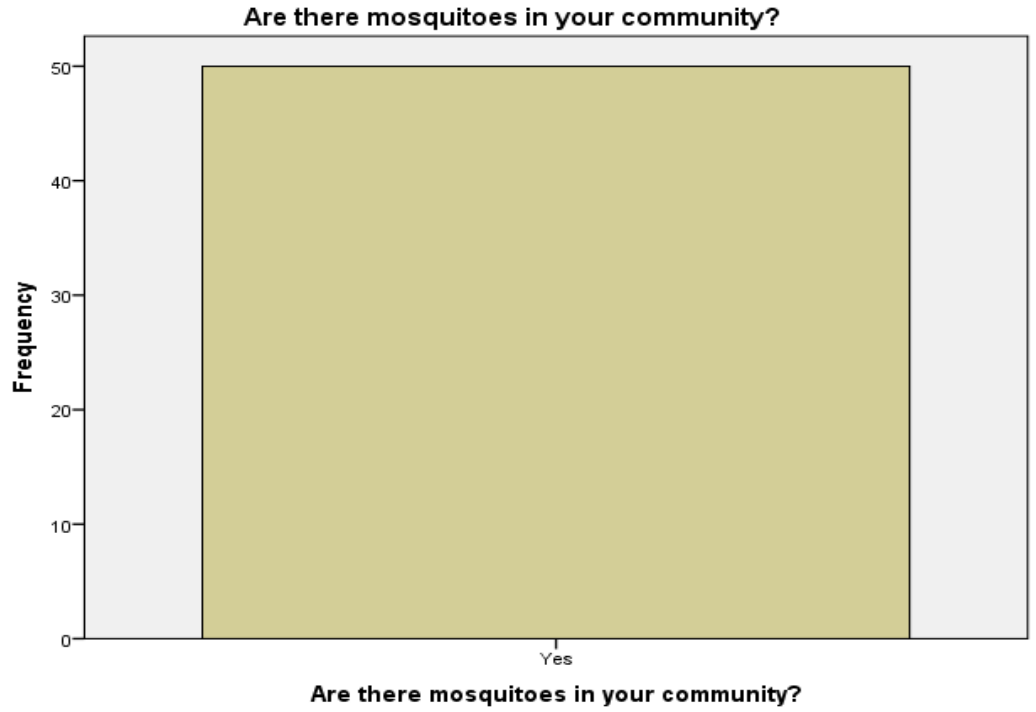

Figure 3:

The figure 3 describes the mosquitoes are present in their community, total 50 out of 50 participants were said to yes that there are mosquitoes in their community.

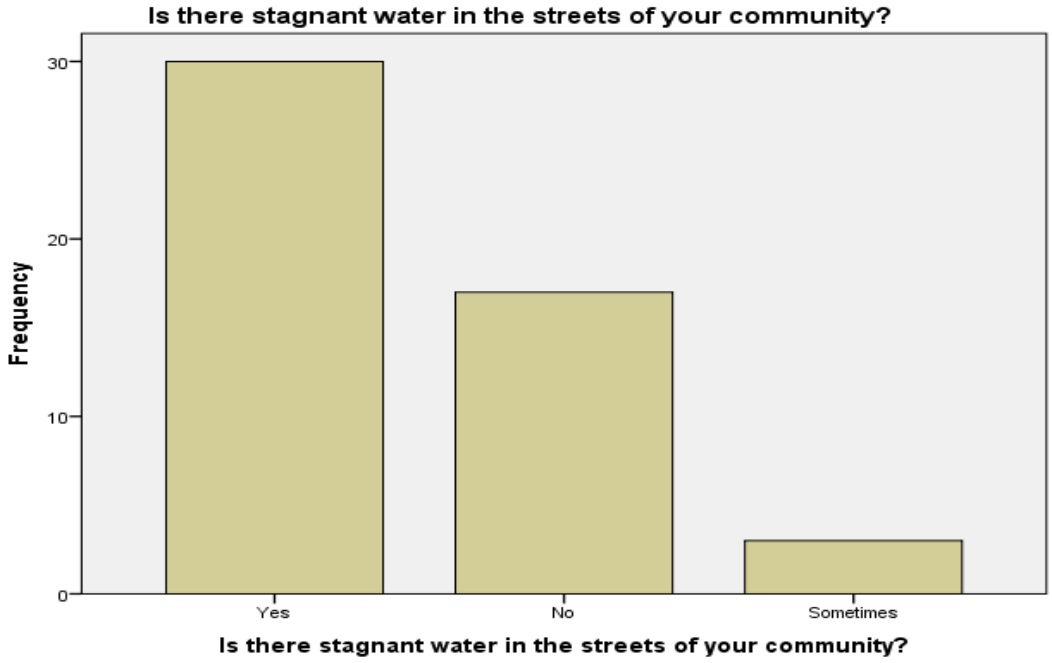

Figure 4:

This figure shows the stagnant water in the streets of community, about thirty peoples answered that there is stagnant water in the streets. Moreover, about seventeen people were said that there is no stagnant water and three people said that sometimes stagnant water present in the streets of community.

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

Figure 5:

Figure 5 explains the preventive measures that participants use to protect themselves from the mosquitoes. The most common method that people twenty two were using to prevent themselves from mosquitoes is Coil, about sixteen participants were using mosquitoes Sprays, seven people were using net as a preventive measure and about five people were using the other preventives measure like mosquito repellent creams, sheets and smoke etc.

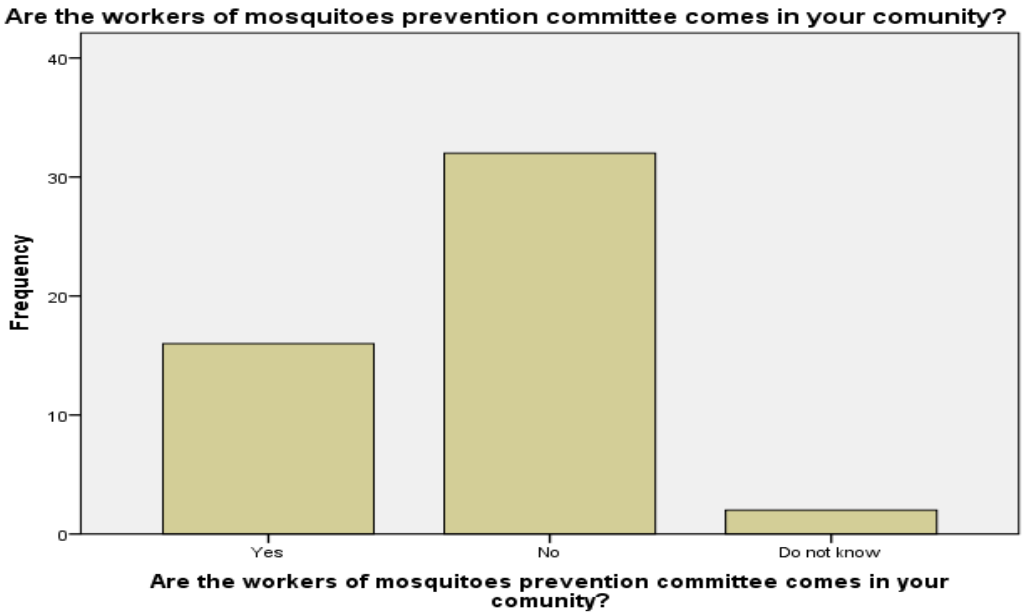

Figure 6:

The figure 6 shows that are the mosquitoes prevention team comes in their community for the elimination of mosquitoes. Approximately 32 out of 50 were responding that mosquito prevention committee had not come in their community. Furthermore, 16 were responding to yes and two have no idea that prevention committee comes in their community or not

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

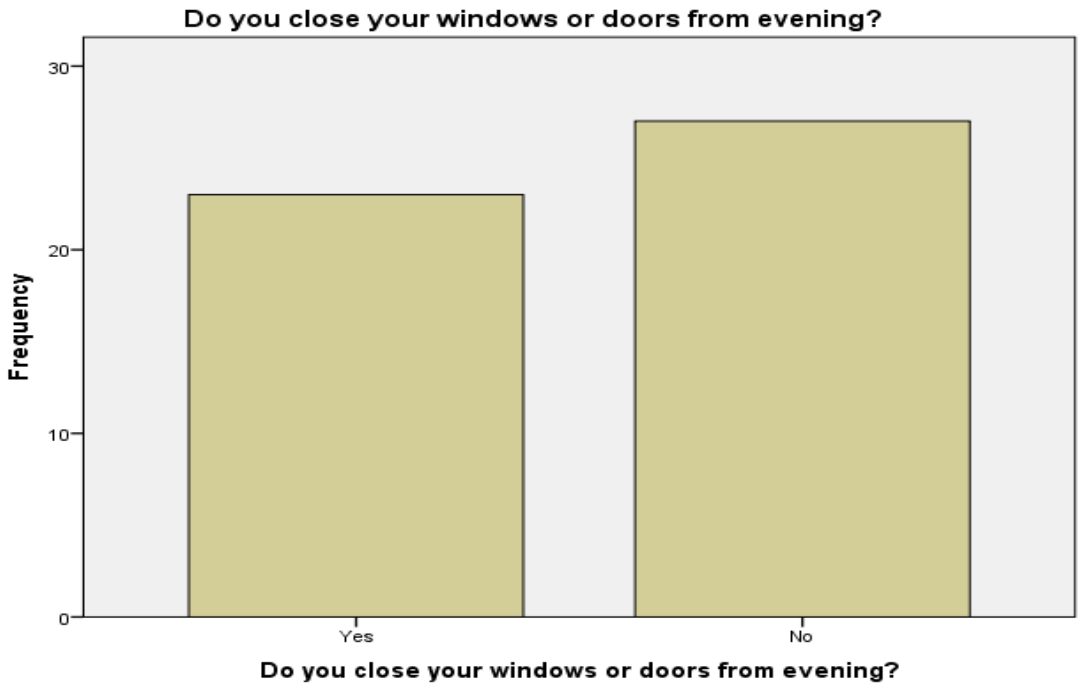

Figure 7:

This figure describes that the people of community close their windows and doors for the prevention of mosquitoes. About twenty three participants close their windows or door in evening in other hand about twenty seven do not close the doors or windows from evening.

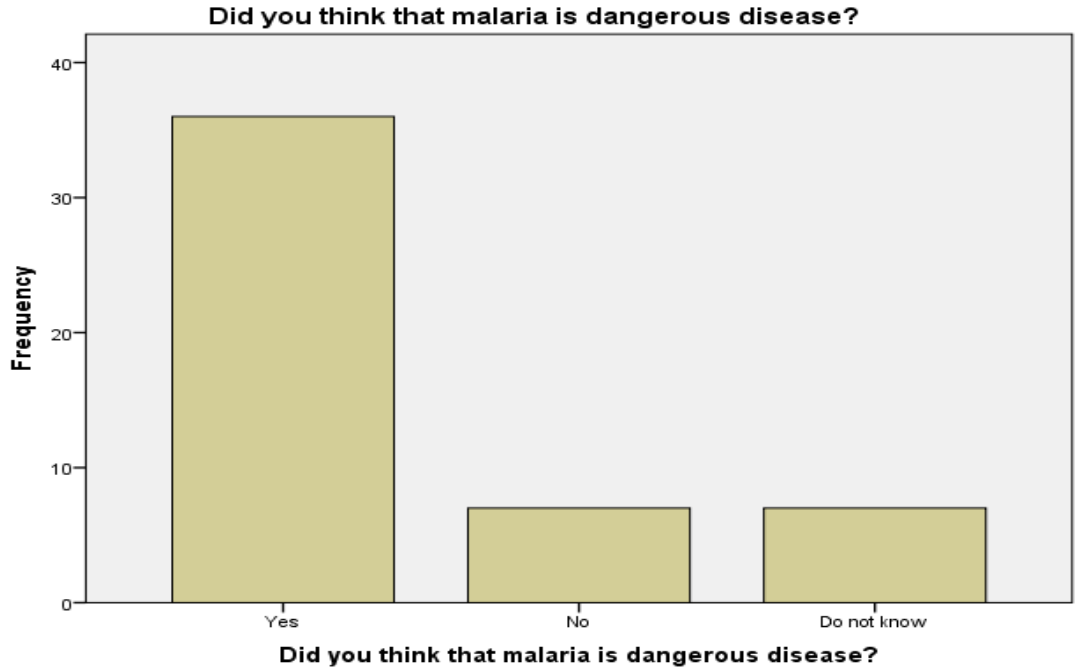

Figure 8:

Figure 8 shows the knowledge of people about the malaria that it is a dangerous disease or not, approximately 36 out of 50 were agree that malaria is a dangerous disease, moreover seven have no knowledge that malaria is a dangerous disease and seven don't have knowledge about the disease.

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

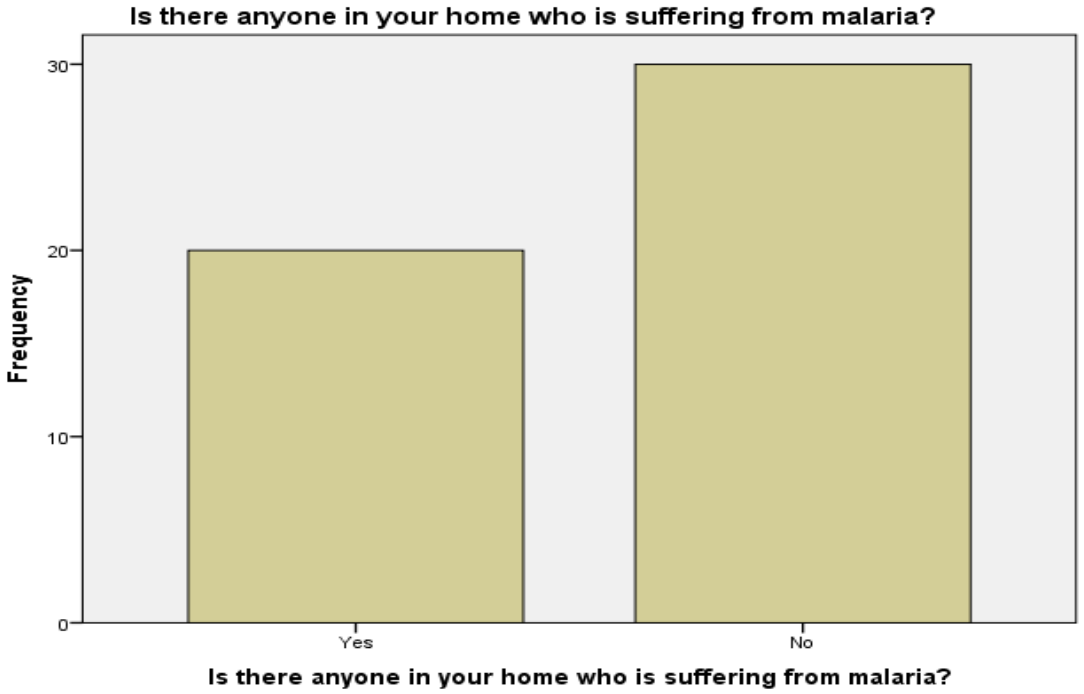

Figure 9:

This chart explains that the any member of family is suffering from malaria. At least twenty participants were admitting that they are suffering from malaria. In contrast, thirty were not suffering from that disease.

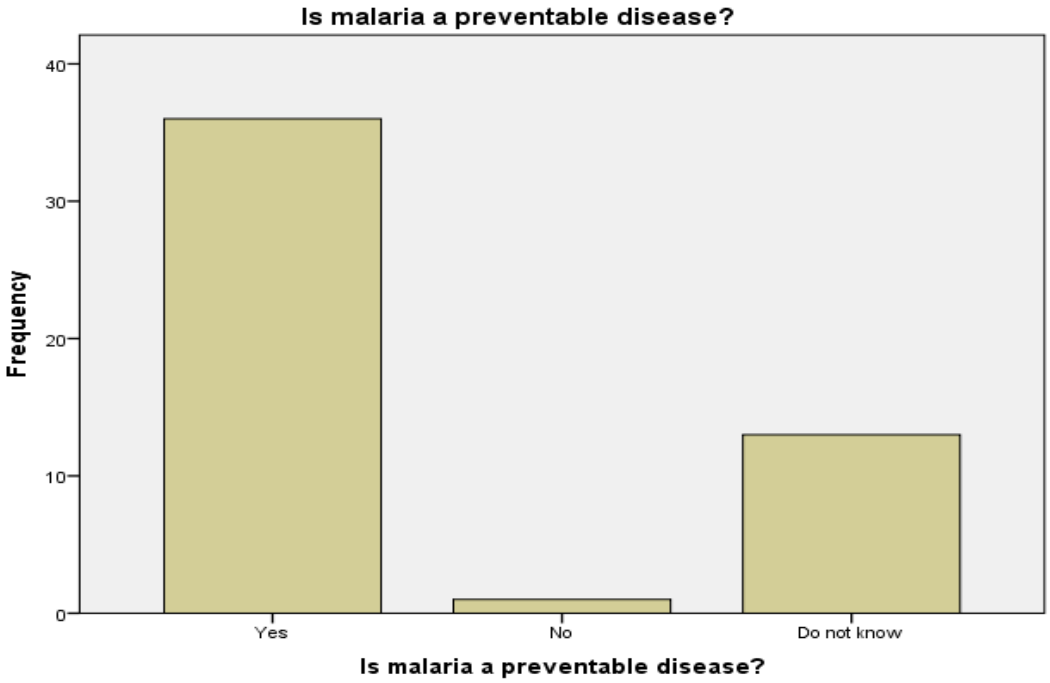

Figure 10:

The figures 10 explain that is the awareness of malaria in the community, that it is a preventable disease or not. About 36 participants agree that it is a preventable disease, thirteen have no idea and one was unaware that malaria is a preventable disease.

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

4. RESULTS

The study was conducted among the residents of Shireen Jinnah colony at Gulshan-e- Sikandarabad, Karachi Pakistan. The study was based on the preventive measure for malaria prevention. Approximately 60% participants described about the existence of stagnant water in the community. In addition about 54% residents were not closing the doors and windows from evening in order to prevent from mosquitoes. Furthermore, 72% had knowledge about malaria that it is a dangerous disease. Similarly, 26% people had no knowledge that malaria is a preventable disease and 2% people were unaware about malarial prevention. Additionally, 64% participants admit that malaria prevention committee workers did not ever come in their community, 4% had no knowledge about the visits of malaria prevention committee and remaining 32% said that the committee workers visit the community for the elimination of malaria. Furthermore, 66% peoples had ever suffered from malaria and 40% people were suffering from malaria in the community. Moreover, about 100% residents said that mosquitoes are present in all over the community. On other hand, about 80% residents have mosquitoes in their homes. The study shows that 44% residents use coils for malaria prevention, about 32% use mosquito sprays, 14% were using net and 10% use other preventive measures for instance mosquitoes repellent creams, smoke and long sleeves clothes etc.

5. DISCUSSION

This study was conducted in the community of Shireen Jinnah colony, Karachi for the prevention of malaria that concluded that about 72% people have knowledge that malaria can be preventable that can be compared with the study that was conducted in the Arafat Town, Karachi which explained that about 70% people have knowledge about the prevention of malaria[2]. According to these researches people have enough knowledge about the preventive measures of malaria but 40% people still suffering from malaria in the community.

The current research, reported that 32% residents were agreed that malaria control programs are presently working in the community for the protection from mosquitoes but in the above research of Arafat Town, claimed that no any malaria control committee were working in their areas. In contrast, in Switzerland the malarial protection programs were working against malaria.[2,6]

Furthermore, in our study about 90% people were using one of the preventive measures like Net, Coils, Spray etc for the prevention of malaria but in the study of Nigeria about 97% people were using preventive measure in which about 85% were using Bed Net as a source for malarial prevention[1,2]. In addition, the research shows that about 44% were using coils and 14% were using bed nets but in the research of Paulander, Iran about 96% were using coils and 90% were using bed nets as a preventive measure for malaria.[2,7,16]

6. CONCLUSION

The study concludes that the residents of Shireen Jinnah Colony had enough knowledge about the prevention of malaria. They use different preventive measure to control the malaria that includes use of coils, nets, spray and many other measures like repellent creams and smoke but these preventive measure were not used effectively therefore many people were suffering from malaria.

7. RECOMMENDATIONS

It is recommended that the government should pay attention in these areas to prevent the residents from this life threatening disease. They should arrange malaria preventive programs like the teams of Malaria prevention committee for spraying in the community and should work for the removing the stagnant water in the community that can play an important role in the breeding of mosquitoes. Furthermore, the resident should be encouraged to use the common preventive measure like smoke, coils, nets, residual spraying, wearing long sleeved clothes and closing the windows and doors in order to prevent them from the malaria.

International Journal of Novel Research in Healthcare and Nursing
Vol. 3, Issue 2, pp: (84-92), Month: May - August 2016, Available at: www.noveltyjournals.com

REFERENCES

[1] Adedotun AA, Morenikeji OA, Odaibo AB. Knowledge, attitudes and practices about malaria in an urban community in South-western Nigeria. J Vector Borne Disease 2010; 47:155-9.

[2] Bilal, A., Siddiqui, W. A., & Mansuri, F. A. (2013). Knowledge, Attitude and Practice (KAP) About Malaria Among Inhabitants of a Slum Area of Karachi. 79-85.

[3] CDC and Malaria. (2014). *Center for Disease Control and Prevention* , 1-2.

[4] Elsabagh, S., Bennett, V. A., & Wylie, A. (2009). Public Awareness and Prevention of Malaria in Vanuatu. *Elsevier* , 295-297.

[5] Guidelines for Malaria Prevention Intravellers from the UK 2015. (2015). *Public Health England* , 109.

[6] Hlongwana KW, Mabaso ML, Kunene S, Govender D, Maharaj R. Community knowledge, attitudes and practices (KAP) on malaria in Swaziland: A country earmarked for malaria elimination. Malar J 2009; 8:29.

[7] Hanafi-Bojd AA, Vatandoost H, Oshaghi MA, Eshraghian MR, Haghdoost AA, Abedi F, et al. Knowledge, attitudes and practices regarding malaria control in an endemic area of Southern Iran. Southeast Asian J Trop Med Public Health 2011; 42:491-501.

[8] Health and Nutriton. In A Plan, *Health and Nutrition* (2007-2008). (pp. 183-192). New york: Planning Commision.

[9] Lengeler C. Insecticide-treated bednets and curtains for preventing malaria (Cochrane Review). In: *The Cochrane Library*, *Issue 2, 2004*. Oxford, Update Software, 2004.

[10] Malaria Matters. (2008). *Center of Disease Control and Prevention* , 1-2

[11] Malaria Prevention and Control Methods Proving Successful in Uganda. (2006). *RTI* , 1-2.

[12] *Malaria Foundation International.* (2007, 12). Retrieved april 18, 2016, from Malaria foundation international: www.malaria.org

[13] Malaria Prevention and Treatment. (2006). *Standards for Maternal and Neonatal Care* , 1-6.

[14] *National Health Services*. (2015, November 27). Retrieved April 15, 2016, from National Health Services Website: http://www.nhs.uk/conditions/Malaria/pages/prevention.aspx

[15] *Net Doctor*. (2013, September 30). Retrieved April 19, 2016, from Net Doctor Website: http://www.netdoctor.co.uk/conditions/infections/a5687/prevention-of-malaria/

[16] Paulander J, Olsson H, Lemma H, Getachew A, Sebastian MS. Knowledge, attitudes and practice about malaria in rural Tigray, Ethiopia. Glob Health Action 2009; 2:1-7.

[17] The Guidelines for the Prevention of Malaria. (2009). *National Department of Health* , 1-35.

[18] The Global Malaria Burden. (2000). *UNICEF* , 1-16.

[19] World Health Organization. World Health Statistics. Geneva: WHO; 2008.

[20] WHO/HTM/GMP. World Malaria Report2008. Geneva: WHO; 2008.

[21] WHO International Travel and Health 2009. Geneva.

[22] WHO. WHO Eastern Mediterranean regional office. Cairo: World Health Organization; 2013.