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Research Article

**COMMUNITY-BASED METHODOLOGY FOR DENGUE
CONTROL AND PREVENTION IN FAISALABAD**¹Dr Fatima Jabbar, ²Dr Nehan Shakeel, ³Dr Iqra Raees¹Faisalabad Medical University, Faisalabad.

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Abstract:

Objective: Despite demanding health programs, cases of dengue fever have increased significantly by 106% over the past two years. Dengue took first place in reported diseases with a population of 520 per 100,000. The dengue fever poses a threat and its spread has intensified due to the spread of trade and travel. Therefore, dengue cannot be controlled if efforts are limited to only a few members of the community. Hence, strengthening the implementation of dengue programs must be pointed out.

Place and Duration: In the Faisalabad Medical University for one year duration from March 2019 to February 2020.

Methods: The community project aims to reduce the incidence of dengue by 30% in one year. The strategic plan aims to create a central group in which employees' capacities should be increased at various levels. Information on your current status, post-test results, return promotion and field application has been evaluated. Strengthening communication to reduce resources has become possible by writing dengue characters in prominent places and advertising dengue jingle.

Results: The Dang-Rous core group gained knowledge, skills and the ability to effectively prevent dengue at the community level. In addition, the awareness and capacity building of every household to search and destroy mosquito breeding and recreational areas in their communities has been regularly increased.

Conclusions: Our findings emphasize the need for additional information, education and communication on mosquito control. It is necessary to identify barriers to action and look for ways to transform the population's knowledge of dengue into positive preventive practices.

Keywords: community, dengue, prevention.

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INTRODUCTION:

In the Pakistan, dengue is considered the tenth most common cause of morbidity in 2005. Then the number of cases continues to increase, and in 2014; 59943 cases were detected. According to data from the World Health Organization (WHO), the Pakistan reports the number of cases of dengue fever and deaths in the Asia since 2010 [1]. The problem of dengue in the Pakistan has affected this country and has become one of the tropical diseases that caused the increase in deaths in urban and rural areas [2]. Cases of dengue fever have been reported in various parts of the country, including today, and control measures have been taken as needed.

For this reason, this project is planned: to reduce the dengue among residents by 30% after a year of implementation [4]. The Dengue Fever project is suitable to meet the needs of communities in preventing and combating dengue fever. However, it is necessary to improve doctors' abilities and encourage the community to participate in solving health problems [5].

METHODS:

This study was held in Faisalabad Medical University, Faisalabad for one year duration from March 2019 to February 2020. The strategic plan was designed to prevent and control dengue within existing infrastructure and as part of basic healthcare services, using the existing regulatory framework of the Local Administrative Unit. Worker capacity should be increased at various levels, such as Registered Health Inspector (RSI), midwives. Capacity building in the prevention and control of dengue is not an isolated effort, but an integral part of strengthening the entire healthcare system to more effectively control vector-borne diseases.

The making and training of Dengue-Rous Core Group:

Literature scanning and networking were performed in which best practices and previous interventions were identified. The impact of previous dengue control measures and information, training and communication (IEC) materials used in earlier activities was then reviewed and responsible people at barangay level were selected to facilitate project implementation. The project was launched and then the Dang-Rous Core Group training was conducted.

The general purpose of the training:

1. Enhancing dengue prevention at the community level of the primary Dang-Rous group.

2. Increasing community participation in the search and destruction of mosquito breeding sites and recreational areas. After the training, the Dang-Rous core group:
 - 1) Acquiring knowledge, skills and skills to ensure effective dengue prevention at community level to reduce the incidence of dengue fever.
 - 2) Developing the ability of every household to regularly search and destroy mosquito breeding sites and resting places in their communities.

Basis for assessment:

Participation and active participation of 10%
30% evaluation test
20% refund show
40% field use
100% of the total

Identification and removal of breeding sites and resting places of mosquitoes:

Eye tests were carried out on selected. Research was carried out and possible breeding and resting places for mosquitoes were identified, and then households, designated breeding sites and resting places for mosquitoes were informed. The identified vessels that could function as mosquito breeding sites were emptied and dried. Unnecessary containers / objects that could be used as a mosquito breeding place were destroyed and properly removed. Then the gutters, stagnant water and the environment were cleaned.

Strengthening communication to reduce resources.:

Communication was made using posters and bells. First, an initial test was performed on the poster, followed by changes based on the initial test. The poster has been reproduced and its scope has been evaluated. The Jingle lyrics were based on the Ministry of Health's Dengue Control Program (DOH). Then the jingle was recorded and played on a CD. Continuous advertising was provided via mobile speakers. The community response was evaluated using a random questionnaire method, from home to home visits. There were 30 participants, a total of 120 participants who were asked to complete a survey.

Data analysis:

Data analysis was carried out using Microsoft Excel 2007. Information collected from participants was presented using frequency meters, tables, charts and percentages.

RESULTS:

The group consists of 32 members from various sectors (Fig. 1). The accompanying duties and obligations are listed below:

Results of the training of the Dengue-Rous Core Group

The graphs below show the results of the Dengue Rous Core Group pre-test and final test. Fig 1 shows the percentage of information on dengue symptoms among members of the Dang-Rous core group.

According to the first entry test: the rash (88%) is expressed as a pronounced dengue fever and symptom, while the rest are fever, headache, muscle pain, abdominal pain and joint pain. Pain behind the eyes or peri-orbital pain was the least mentioned (29%), after training it was considered to be 96% dengue fever. These important features of Dang are important for the early detection of suspected dengue cases. In turn, the Dang-Rous Core Group can explain and pass it on to the community.

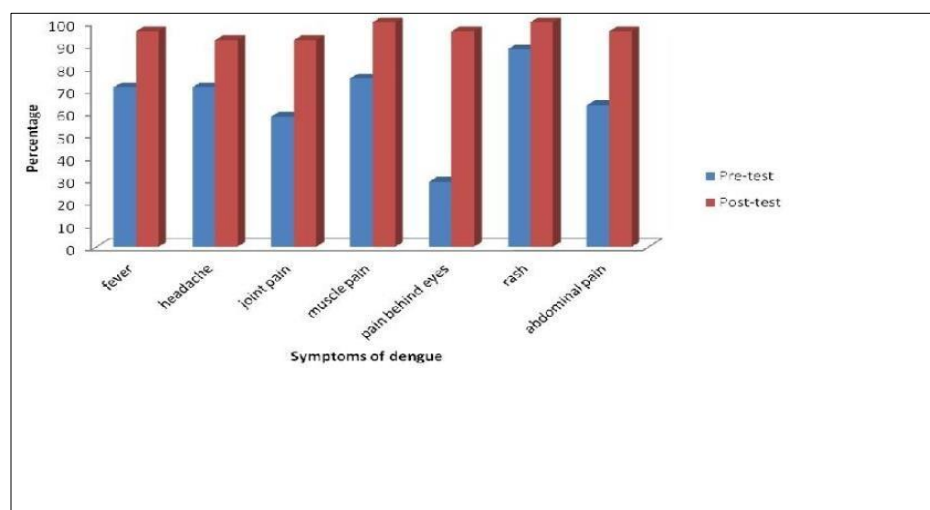


Figure 1: Percentage of the knowledge on symptoms of dengue among Dengue-Rous Core Group.

Fig. 3 shows the percentage of dengue information among members of the Dang-Rous Core Group. Initially, most were considered flies, anophele can infect any mosquito dengue virus, such as interpersonal contact and sex. After training, most Aedes aegypti, such as Aedes mosquitoes (87%),

realize that there are vectors in the home, while Aedes albopictus is outside the home or in rural areas. This is very important for public education in the search and destruction of breeding and resting places for dengue, dengue mosquito.

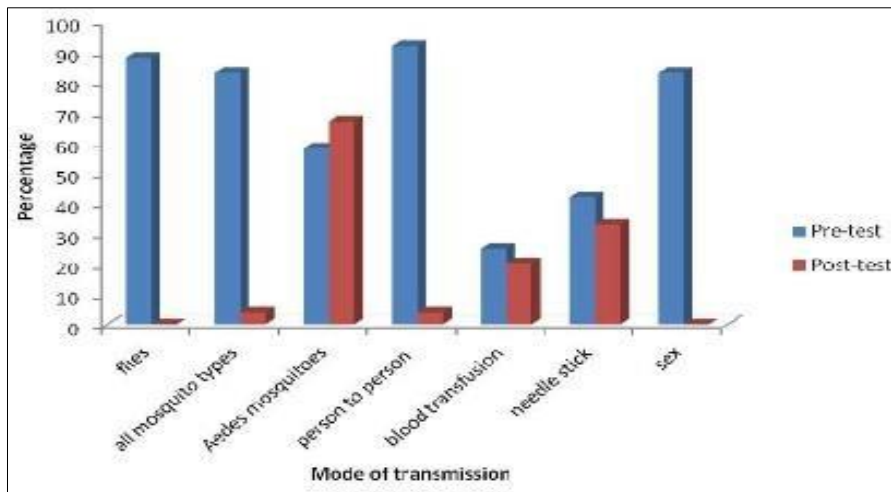


Figure 2: Percentage of the knowledge on dengue transmission among Dengue-Rous Core Group.

Figure 3 shows multiple preventive applications based on responses known by the Dang-Rous Core Group, most insecticide sprays (83%), professional pest control (63%), window detection (88%), mosquito net use (92%), stagnation When removing water (96%),

cutting bushes and bushes (96%) and covering containers (96%) to prevent mosquitoes carrying dengue fever, only 13% have no special protection against dengue.

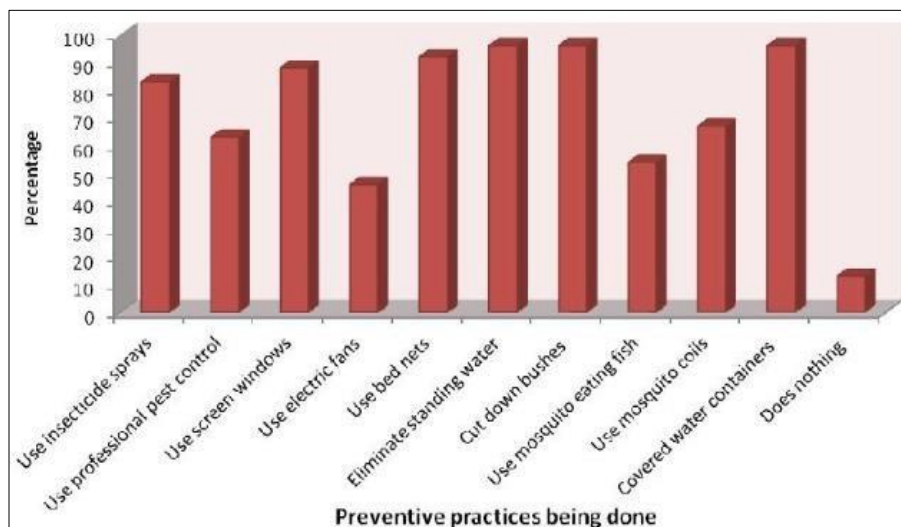


Figure 3: Preventive practices against dengue among Dengue-Rous Core Group.

Identification and removal of breeding sites and resting places of mosquitoes.

The community's response to the Dengue Fever project to improve the community's ability to reduce resources by physically removing breeding sites and cleaning mosquito rest areas was assessed by random testing. Home page visits.

During the actual distribution of the Dengue-Rous Core Group on site, a total of 1,139 containers without lids were detected in an internal container survey. Most of them are on the list: bottles (15%), drums (10.3%), jugs (9.5%), boxes, jugs and vases. Every home community should implement a Dang-Rous Core Group advocacy campaign so that containers are

not breeding grounds and resting places for mosquitoes. The Dang-Rous Core Group also conducted a study on the reduction of container natural resources, such as plant armpits, trees, coconut shells, bamboo and other natural containers, in four designated dams. A total of 708 natural containers were identified. The types of containers without cover are mostly plant axils (57%), followed by coconut husks (19%), bamboo stumps (11%) and tree holes. This showed that the natural containers like coconut husks are the likely breeding and resting place of mosquitoes. It has implications as dengue-carrying

mosquitoes abound outside the house, especially during different weather conditions.

Table 1 showed the response of the community on the dengue poster. Most of the respondents wrote the message that mosquito bites can kill (50%), keep the environment and surroundings clean (23%), brought by dirty environment (10%) and others. The dengue message on the fatality it can bring would cause the community to act in unison on preventing dengue by cleaning the environment with source reduction of mosquito breeding and resting places.

Table 1: Response of the community (n=120) on the dengue.

Response	Frequency	%
What is the message conveyed by the poster?		
Mosquito bites can kill	60	50
Keep the environment clean	28	23
Dirty environment	12	10
Others	20	17
Total	120	100
What are the things you should do after knowing the message?		
Clean the surroundings	53	44
Throw the garbage properly	28	23
Keep away from mosquitoes	10	8
Find breeding places of the mosquitoes	8	7
Wear long sleeves and pajamas	6	5
Others	15	13
Total	120	100

Table 2: Response of the community (n=120) on the dengue jingle.

Response	Frequency	%
What is the message conveyed by the jingle?		
Keep the surroundings clean	66	55
Dengue prevention	48	40
Search and destroy	4	3
Dengue can kill	1	1
Always use bed nets	1	1
Total	120	100

With the regards on the things you should do after knowing the message, most of them responded by cleaning the surroundings (44%), throwing garbage properly (23%), keeping away from mosquitos (8%), finding breeding places of mosquitos (7%), and wearing long sleeves and pajamas (5%). Based on the results, the community regard that a clean environment would have less dengue-carrying mosquitos. Thus, the Dengue-Rous Core Group should increase the Response of the community on the dengue jingle.

Table 2 shows the response rate of random study of participants. Participants were asked to write down all their ideas and opinions after hearing the ear of dengue fever written by the majority: take care of environmental cleanliness (55%), prevent dengue (40%), search and destroy, kill dengue and always use the flap. The message "Dengue Fever" can work together to prevent dengue fever by cleaning the environment by reducing the source of mosquito breeding and resting sites.

DISCUSSION:

Members of the Dang-Rous Core Group have been identified according to a multi-sectoral team approach to dengue prevention. Based on our readings, we point out that dengue requires community involvement to successfully combat dense factors such as cleaning, sewage, home security and public awareness, and dengue awareness. For this reason, NGOs such as midwife, Healthcare Professionals, Site Neighborhood Organization, PTA president, manager and group of women have been selected as members of the Dang-Rous Core Group to increase participation in preventing dengue[6].

The training is based on the need for competition from the Dang-Rous Core Group and its effectiveness in raising public awareness of the need for a multi-sectoral approach to combating dengue. That is why knowledge and awareness become practical⁷. As an open forum is encouraged, training methods are considered necessary for effective understanding of information and disclosure times. The contribution and exchange of experiences are also observed during the promotional campaign⁸. The assessment of the training is based on the initial and post-test tests after completing the training. The results showed an increase in participants' knowledge⁹⁻¹⁰. A return operation was also carried out to determine if the concept could be properly applied in a real environment, such as site visits to examine larvae, mosquito breeding, and study and remove resting places¹¹. A promotional campaign on dengue was also observed.

The implementation phase served as a real and organized event for the Dang-Rous Central Group to successfully conduct Dengue fever training at community level¹²⁻¹³. This was done by Sitio to increase remote access. In this way, the participation of people in dengue activities such as the Kit-Kit Brigade, the four-hour habit, Sabayang Linisan, can be searched and destroyed in the country¹⁴. The goal of the dengue and jungle cartel, which is to strengthen communication to reduce resources, has been successfully achieved¹⁵. This can be supported by a positive community response to this media. People in the community were authorized to act immediately and showed readiness to support the defense of the Dang-Rous Core Group.

CONCLUSION:

Our findings should be interpreted in the light of various potential restrictions. Apparently, the cross-sectional study assesses the relationship point by time

and does not take into account the dynamics of the relationship between the evaluated variables. In addition, because the sample size $n = 120$ is small for the entire household population, it is possible because the survey is random in relation to the point map. In addition, by using surveys, some participants will provide socially desirable answers to some questions. Third, a small sample may have limited our ability to detect small to medium and unresponsive responses. Time constraints during actual field deployment will affect results because changes in behavior, such as increasing the capacity of the Dang-Rous Primary Group, will require time and improve community practice.

In conclusion, despite the limitations of our study, we confirm that our findings emphasize the need for more information, education and communication to reduce the source of mosquitoes. It is necessary to identify barriers to action and look for ways to transform the population's knowledge of dengue into positive protective practices that will ultimately reduce the transmission of dengue-bearing mosquitoes.

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