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RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECT OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING PREVENTION AND HOME CARE OF DENGUE FEVER AMONG ADULT PEOPLE IN RANIBASTI, MURSHIDABAD, WEST BENGAL

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Dengue fever, structured teaching programme, knowledge, prevention, home care, adults.

Abstract

A study was conducted to assess the effectiveness of a structured teaching programme on knowledge regarding prevention and home care of dengue fever among adults. The objectives of the study were to assess the level of knowledge regarding prevention and home care of dengue fever among adults, to evaluate the effect of the structured teaching programme on knowledge, and to find the association between the level of knowledge and selected socio-demographic variables. An evaluative research approach was used and a one-group pre-test post-test research design was selected. A total of 86 adults were selected by using a non-probability convenience sampling technique.The reliability of the tool was established by using Spearman's Brown formula,where r = 0.76. Data were collected by using a self-administered structured knowledge questionnaire, followed by a structured teaching programme and post-test after 7 days. The results of the present study showed that in the pre-test, 17.44% of adults had good knowledge, 67.44% had average knowledge and 15.12% had poor knowledge. In the post-test, 73.26% had good knowledge, 24.42% had average knowledge and 2.33% had poor knowledge. The pre-test mean knowledge score was 14.8, whereas the post-test mean knowledge score was 20.4, with a mean difference of 5.6. The calculated paired t-test value was 16.18 with df of85 at 0.05 level of significance, which was higher than the tabulated value. Thus, the findings indicate an improvement in knowledge regarding prevention and home management of dengue fever following the structured teaching programme.

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Introduction:-

Background of the study “Our greatest biological threats are no longer hiding in the shadows; they are breeding in our backyards and adapting to our doorsteps.” Dr. Anthony Fauci in infectious disease epidemiology, vector is

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defined as an arthropod or any living carrier that transports an infectious agent to susceptible individual. Vector-born disease are human illness caused by parasites, viruses and bacteria, transmitted by vectors - mainly mosquitoes, ticks and fleas. These infections, including malaria, dengue, zika and Lyme disease, account for over 174 of all infectious disease and cause over 700,000 deaths annually. Preventing relies on avoiding bites and controlling vector population.Dengue is a mosquito-borne viral disease that possesses a significant public health challenge in tropical and subtropical regions around the world. The disease is primarily transmitted by the Aedes aegypti mosquito and to a lesser extent by Aedes albopictus, which thrive in warm, humid climates and breed in stagnant water found in both urban and rural environments. About half of the World's population is now at risk of dengue, with an estimated 100-400 million infections occurring each year. Many dengue fever infections are asymptomatic produce only mild illness, occasionally cause more severe and even death.[1] Dengue (break-bone fever) is a viral infection that is spread from mosquitoes to people. Most people with dengue have mild or no symptoms and will get better in 1-2 weeks. Rarely, dengue can be severe and lead to death. If symptoms occur, they usually begin 4-10 days after infection and last for 2-7 days, symptoms may include, high fever (40° C/104°F), severe headache, muscle & joint pains, nausea, vomiting, swollen glands and rash and also in severe form persistant vomiting, bleeding gums, fatigue, restlessness can be seen. People with these severe symptoms should seek care immediately. The incidence of dengue has grown dramatically worldwide in recent decades, with the number of cases reported to WHO increasing from 505430 cases in 2000 to 14.6 million in 2024 and more than 12000 dengue related deaths reported. The vast majority of cases are asymptomatic or mild and selfmanaged, and hence the actual numbers of dengue cases are under-reported. The disease is now endemic in more than 100 countries. from January to July 2025, over 4 million cases and over 3000 deaths have been reported to WHO from 97 countries.

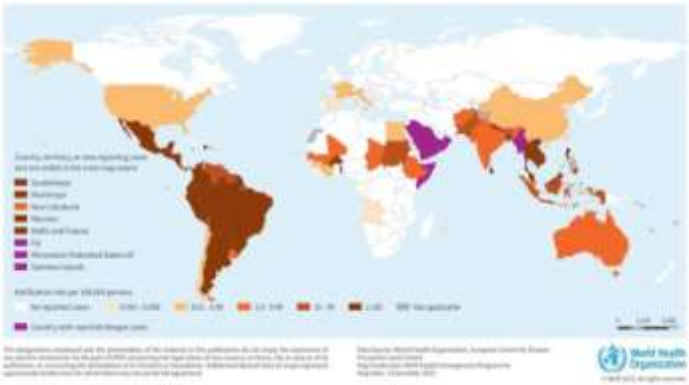

Figure 1: Country with reported dengue cases

Sources: https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON498

Shows detection of dengue cases and death rate over the years:-

Table – 1 Case Details

Year	Value
2021	193,245
2022	233,251
2023	289,235
2024	233,519

Source: National center for vector born disease control, Govt. of India

Need of The Study:-

Dengue continues to spread globally and has reached historic high levels, with an unprecedented number of cases reported in recent years. In 2024, there were over 14.6 million dengue cases and more than 12000 -dengue related

deaths worldwide, affecting over 100 countries across all continents. Estimated annual infections may be many times higher than reported, with models suggesting hundreds of millions of infections annually, including asymptomatic cases. 2024 was the worst year for dengue on record, more than doubling 6.8 million cases reported in 2023.

Case Study:-

To estimate the baseline knowledge and evaluate the effect of structured teaching programme on prevention and home care of dengue fever among adults in Ranibasti, Berhampore, Murshidabad, with the aim of improving health awareness and promoting safe community-based prevention and home care of dengue fever.

Conclusions:-

In conclusion, adequate knowledge regarding dengue prevention and home care is essential for reducing severe complications, dehydration, and hospitalization rates. While basic vector control and proper fluid management are highly effective, persistent knowledge gaps and misconceptions continue to put communities at risk. Implementing structured teaching programmes—led actively by nurses and community health centers—empowers adults to recognize early warning signs, maintain environmental sanitation, and manage mild cases safely at home. Ultimately, a collaborative effort among healthcare professionals, local authorities, and community members makes health education a vital tool for controlling dengue transmission and protecting public health.

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