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The Importance of Training Health Workers in Preventing the Spread of Dengue Fever

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Letter to the Editor

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In a report by World Health Organization on dengue fever, approximately 390 million infections with the virus are reported annually. Almost 40% of the world's population is in areas at risk of this infection.(Bhatt et al., 2013, WHO, 2024). Dengue fever increased significantly from 2008 to 2015, spreading with widespread travel to various continents, including the Americas, Asia, and parts of the Pacific (WHO, 2024). Dengue fever closely resembles the flu in terms of symptoms and is associated with risks such as severe bleeding and respiratory distress. (WHO, 2009). Symptoms of the disease range from asymptomatic to symptomatic, afebrile to hemorrhagic, and usually begin 5-7 days after the mosquito bite (Sampat, 2021). Clinical features of the disease include fever with rash, severe headache, pain behind the eyes, muscle and joint pain (Halstead, 2007).

In the Eastern Mediterranean region, the World Health Organization has reported multiple outbreaks of dengue in recent years, particularly in Pakistan, Saudi Arabia, and Yemen. Recently, evidence of the disease has been seen in Iran, in which some patients had traveled to endemic areas, including Malaysia, India, and Thailand, and some had no travel history and were from Sistan and Baluchestan province in southeastern Iran, neighboring Pakistan, and Kurdistan province in western Iran (Ghasemzadeh et al., 2016, Heydari et al., 2018). Iran has a hot and dry climate at which many dengue transmitter mosquitoes can live, for example, stagnant and dirty water in car wheels and flowerpots, etc. Therefore, dengue can be considered as a treat in Iran (Ebrahimi et al., 2016). Dengue fever has heavy economic costs, and controlling it requires improving preventive strategies (Al-Zurfi et al., 2015). It is also necessary to examine the behavior of infected patients in seeking health services (Elsinga et al., 2015).

Public education and mass campaigns help control the disease, and the World Health Organization emphasizes encouraging people to cooperate to solve this problem. (Dickinson et al.,

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2012, WHO, 2015). Mosquito-related education programs can help with population-based management (Stefopoulou et al., 2018).

Knowledge, attitude, and performance of health workers are considered important factors that influence the incidence and transmission of dengue disease (Handel et al., 2016). Despite efforts to develop an effective vaccine for all four serotypes of the virus, the only practical solution to prevent and control the disease is health education and reducing the population of carriers. Since health workers interact directly with patients and are known as the front line of diagnosis, information and treatment of the disease, their education can play an important role in preventing, treating and controlling the spread of the disease and promoting community health (Ho et al., 2013). Therefore, educational interventions regarding dengue fever should emphasize increasing the knowledge and attitudes of health workers to lead to appropriate performance and behavior for adequate disease management. Training health workers in the identification, assessment, selection, and implementation of disease prevention and management protocols is essential.(Nikookar et al., 2023, Zida-Compaore et al., 2022).

The first line of treatment and prevention of dengue fever in Iran are health workers, which shows the importance of their role. In recent years, educational interventions in the form of continuing medical education for health workers have been held in priority areas regarding dengue fever. (Nikookar et al., 2023). These educational interventions aim to help change the performance of health workers to provide appropriate services. (Guad et al., 2021, Nikookar et al., 2023).

Considering the above,

- Health system workers are the first line of contact with patients and also provide education on preventive behaviors regarding this disease.
- Knowledge, attitude, and performance of health workers are important factors that affect the incidence and transmission of dengue.
- Education of health workers regarding this disease can play an important role in preventing, treating, and controlling the spread of the disease and promoting community health.

Conflict of interest

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