ABSTRACT

Background: Dengue hemorrhagic fever (DHF) is a disease caused by the *dengue* virus and transmitted through *Aedes aegypti* mosquitoes. In Jambi City, DHF cases in the working area of the Rawasari Health Center increased from 16 cases in 2022 to 65 cases in 2024. This increase is suspected to be influenced by environmental factors and community behavior. This study aims to determine the relationship between physical environmental factors and community actions with the incidence of DHF in the Rawasari Health Center area in 2025.

Methods: This study used a case-control design with a quantitative approach. The sample consisted of 24 cases and 24 controls, selected using a matched case-control technique based on age and gender. Data were collected through questionnaires and observation sheets, and analyzed using chi-square test.

Results: Mosquito larvae were found in water containers (63.0%), with respondents not regularly cleaning water containers (68.2%), not removing unused items (68.2%), and not installing wire mesh on ventilation or windows (72.7%). There were significant relationship between the presence of mosquito larvae in water storage places (p= 0.042; OR= 3.400), cleaning water containers (p= 0.020; OR=4.048), removing unused items (p= 0.020; OR= 4.048), and installing wire mesh (p= 0.004; OR=6.000) with the occurrence of dengue fever. Hanging clothes and using mosquito repellents showed no significant association.

Conclusion: There is a relationship between the presence of mosquito larvae in water containers, cleaning water containers, removing unused items, and installing wire mesh with DHF incidence. Consistent implementation of the 3M Plus program by the community is necessary.

Keywords: DHF, physical environment, community actions.

ABSTRAK

Latar Belakang: Demam berdarah *dengue* merupakan penyakit akibat virus *dengue* yang ditularkan melalui nyamuk *aedes aegypti*. Di Kota Jambi, kasus DBD di wilayah kerja Puskesmas Rawasari meningkat dari 16 kasus tahun 2022 menjadi 65 kasus tahun 2024. Peningkatan ini diduga dipengaruhi oleh faktor lingkungan dan perilaku masyarakat. Penelitian ini bertujuan mengetahui hubungan faktor lingkungan fisik dan tindakan masyarakat dengan kejadian demam berdarah *dengue* (DBD) di wilayah kerja Puskesmas Rawasari tahun 2025.

Metode: Penelitian menggunakan desain *case control* dengan pendekatan kuantitatif. Sampel terdiri dari 24 kasus dan 24 kontrol, dipilih dengan teknik *matched case control* berdasarkan umur dan jenis kelamin. Data dikumpulkan melalui kuesioner dan lembar observasi, lalu dianalisis menggunakan uji *chi-square*.

Hasil: Keberadaan jentik nyamuk pada tempat penampungan air (63.0%), tidak membersihkan tempat penampungan air (68.2%), tidak menyingkirkan barang bekas (68.2%), dan tidak memasang kawat kasa (72.7%). Terdapat hubungan signifikan keberadaan jentik nyamuk pada tempat penampungan air (p = 0.042;OR = 3.400), tindakan membersihkan tempat penampungan air (p = 0.020;OR = 4.048), menyingkirkan barang bekas (p = 0.020;OR = 4.048), dan memasang kawat kasa (p = 0.004;OR = 6.000) dengan kejadian DBD. Tindakan menggantung pakaian dan penggunaan obat anti nyamuk tidak menunjukkan hubungan signifikan.

Kesimpulan: Ada hubungan keberadaan jentik nyamuk pada TPA,tindakan membersihkan tempat penampungan air,menyingkirkan barang bekas, dan memasang kawat kasa. Diperlukan penerapan 3M Plus secara konsisten.

Kata Kunci: DBD, lingkungan fisik, tindakan masyarakat.