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ABSTRACT

Title of Abstract : Design and Evaluation of an Elective Malaria Surveillance Module for Medical Education in East Kalimantan

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Background : Malaria remains a significant public health burden in Indonesia, with over 230 million people in transmission risk areas. Strengthening surveillance systems is crucial for elimination, requiring competent health professionals.

Objective : This study developed and validated a malaria surveillance elective module for East Kalimantan, Indonesia.

Research Methods/ Implementation Methods : This research employed a Research and Development design with a descriptive quantitative approach at the Faculty of Medicine, Mulawarman University, from September 2024 to September 2025. The development process included needs analysis surveys distributed to medical students and lecturers, expert validation of content validity and media quality, and pilot implementation with pre-post knowledge assessments. The sample comprised 113 medical students from the 2024 cohort. Expert validation involved content specialists and media design experts who assessed the module using standardized rubrics. Data were analyzed using descriptive statistics to determine feasibility scores, validity levels, and learning effectiveness

Results : Needs analysis revealed high demand for contextualized malaria surveillance materials among students and lecturers. Expert validation yielded content feasibility and linguistic appropriateness scores of 60–80%, categorized as good to very good, while media validation confirmed design quality met educational standards. Pilot implementation with 106 students showed significant knowledge improvement, with scores increasing 46.96% from pretest average of 66 to post-test average of 97. Student attendance reached 84.8%, indicating strong engagement.

Conclusion/Lesson Learned : The malaria surveillance module demonstrated strong validity and effectiveness in enhancing medical student competencies. It is contextually appropriate for endemic regions and recommended for integration into medical curricula to strengthen disease surveillance capabilities among future health professionals in Indonesia

Keyword : Malaria surveillance; module development; medical education; validation; East Kalimantan, Indonesia