Seeing malaria through the eyes of affected communities: using photovoice to document local knowledge on zoonotic malaria causation and prevention practices among rural communities exposed to Plasmodium Knowlesi malaria in Northern Borneo Island

ABSTRACT

Background Many rural communities in Malaysian Borneo and Southeast Asia are at risk of Plasmodium knowlesi malaria. Multiple factors contribute to infection, however, a deep understanding of illness causation and prevention practices among at-risk communities remains limited. This study aims to document local knowledge on malaria causation and preventive practices of rural communities in Sabah, Malaysia, using photovoice—a participatory research method. Methods From January to June 2022, a photovoice study was conducted with rural communities in Matunggong subdistrict, Malaysia, to explore their experiences with and local knowledge of non-human primate malaria and prevention practices. The study included (1) an introductory phase in which participants were introduced to the photovoice method; (2) a documentation phase in which participants captured and narrated photos from their communities; (3) a discussion phase in which participants discussed photos and relevant topics through a series of three focus group discussions (FGDs) per village; and (4) a dissemination phase where selected photos were shared with key stakeholders through a photo exhibition. A purposively selected sample of 26 participants (adults>18 years old, male, and female) from four villages participated in all phases of the study. The study activities were conducted in Sabah Malay dialect. Participants and the research team contributed to data review and analyses. Results Rural communities in Sabah, Malaysia possess local knowledge that attributes non-human primate malaria to natural factors related to the presence of mosquitoes that bite humans and which carry "kuman-malaria" or malaria parasite. Participants revealed various preventive practises ranging from traditional practises, including burning dried leaves and using plants that produce foul odours, to non-traditional approaches such as aerosols and mosquito