

Malaria knowledge, attitude, and practice among communities involved in a seasonal malaria chemoprevention study in Nanyumbu and Masasi districts, Tanzania

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Background

Utilization of malaria interventions is influenced by, among other things, the level of knowledge and attitude that the community has toward the infection as well as the available interventions. This study assessed malaria knowledge, attitudes, and practices on malaria infection and interventions in Masasi and Nanyumbu districts, Tanzania.

Methods

A community-based cross-sectional survey was conducted between August and September 2020, among the heads of households having at least one under-five child. Information on knowledge, attitudes, and practices on malaria infection and interventions was gathered from the heads of the households using a structured questionnaire. The knowledge level was classified into low, moderate, and high. Attitudes were classified into positive and negative, whereas the practices were classified into good and poor. Children aged between 3 and 59 months were screened for malaria infection using a malaria rapid diagnostic test (mRDT). The proportion of the households' heads with high level of knowledge was the primary outcome. Proportions were compared using Chi-square or Fisher's test, and logistic regression analysis was used as appropriate.

Results

A total of 1,556 household heads were interviewed, 1,167 (75.00%) were male, and according to marital status, 1,067 (68.57%) were couples. All the household heads had some knowledge of malaria, but 47.33% (736/1,555) and 13.83% (215/1,555) of them had moderate and high knowledge, respectively. The level of knowledge on malaria was significantly influenced by gender [adjusted odds ratio (aOR) = 0.72, 95.00% confidence interval (CI) = 0.56–0.94, $p = 0.017$], level of education (aOR = 1.50, 95.00% CI = 1.04–2.16, $p = 0.03$), and the occupation of the household head (aOR = 1.90, 95.00% CI = 1.22–2.96, $p = 0.004$). Majority of the households [83.87% (1,305/1,556)] had bed nets hanging on the sleeping spaces. Of the household heads

possessing bed nets, 85.10% (514/604), 79.62% (586/736), and 95.35% (205/215) of them had a low, moderate, and high level of knowledge on malaria infection, respectively (trend $\chi^2 = 31.53$, $p < 0.001$). The majority [95.04% (1,474/1,551)] of the household heads perceived sleeping under the bed net to be beneficial. Furthermore, 15.56% (94/604), 14.67% (108/736), and 7.44% (16/215) of the household heads with low, moderate, and high knowledge, respectively, had children with malaria infection (trend $\chi^2 = 9.172$, $p = 0.01$).

Conclusion

The study population had a good level of knowledge about malaria infection, and a good attitude toward malaria interventions, and the majority of them were using bed nets.