

**Association between knowledge, attitude and preventive practices on malaria among pregnant women with and without malaria attending ante-natal care in Zamfara state, Nigeria**

**ABSTRACT**

**Background:** Malaria during pregnancy is a major public health problem, with substantial risks for the mother and her foetus. The aim of this study was to assess the knowledge, attitude and preventive practices of malaria among pregnant women diagnosed with and without malaria attending ante-natal care in Zamfara State, Nigeria.

**Materials and Methods:** An unmatched case control study was conducted among pregnant women attending ante-natal care in Zamfara State, Nigeria. Pregnant women both cases and controls were obtained using multistage random sampling. Case and control in this study were defined as pregnant woman attending ante-natal care from the selected general hospitals in Zamfara State, confirmed with and without malaria respectively, using giemsa staining method based on their medical records. Face to face interview and self-administered pretested questionnaire in English and Hausa languages were used to obtain information on knowledge, attitude and preventive practices of the pregnant women using the mean score as a cut-off point. Descriptive analysis, chi-square and multivariate logistic regression were employed to determine the predictors using forward stepwise (likelihood ratio). Data was analysed using SPSS version 21.0.

**Result:** There were 522 pregnant women 261 cases and 261 controls. The overall mean knowledge score of the pregnant women was 46.88 ( $\pm$  8.322), with 67.8% cases having low knowledge and 75.1% controls having high knowledge on malaria. Overall positive attitude score among cases was only 14.9% as compared to controls with 83.9%. More than half of the cases 73.2% do not practice malaria preventive measures as compared to controls with only 19.9%. The predictors for malaria were having low knowledge (AOR =4.155, 95%CI = 2.344, 7.365,  $p < 0.001$ ), negative attitude (AOR = 30.634, 95%CI =16.296, 57.589,  $p < 0.001$ ) and low practices (AOR = 15.587, 95%CI = 8.183, 29.689,  $p < 0.001$ ).

**Conclusion:** This study has identified that pregnant women with malaria in Zamfara State, Nigeria had low level of knowledge, attitude and poor preventive practices towards malaria.

**Keyword:** Malaria; Pregnancy; Knowledge; Attitude; Practices; Zamfara State; Nigeria