## Effectiveness of health education intervention on water sanitation and hygiene practice among adolescent girls in Maiduguri Metropolitan Council, Borno State, Nigeria: a cluster randomised control trial

## **ABSTRACT**

Poor water sanitation and hygiene practice can be associated with increased morbidity and mortality. The study aimed to determine the effectiveness of health education intervention using information, motivation and a behavioural skill model on water sanitation and hygiene (WASH) practice among adolescent girls in Maiduguri Metropolitan Council, Borno State, Nigeria. A school-based cluster randomized control trial was conducted among 417 adolescent girls (10 to 19 years old) in four schools. The KoBo collect toolbox was used for data collection from October 2019 to March 2020. The chi-squared test was used to compare the baseline differences between intervention and control groups for WASH practice. A generalized estimating equation was used to assess changes from baseline, post intervention and follow up. There was significant interaction for WASH practice during follow up. Religion, place of residence, monthly income and occupation of mother had a statistically significant effect on WASH practice among adolescent girls. Findings revealed that this health education intervention was effective in improving water sanitation and hygiene practice among adolescent girls. Furthermore, religion, place of residence, monthly income and occupation of mother were found to be associated with water sanitation and hygiene practice.

**Keyword:** Water; Sanitation; Hygiene; Adolescent; KoBo collect; Health education; Intervention