

Knowledge and behaviour regarding adverse effects of traditional biomass cookstove usage among rural households in desert frontline states of Northern Nigeria

ABSTRACT

Background: The adverse effects of traditional biomass cookstove (TBC) can be reduced by switching to cleaner cookstoves, improving cooking environment or changing cooking behaviour. Improved knowledge and behaviour regarding adverse effects of traditional biomass cookstove play a significant role in the success of any of the initiatives. This study evaluates the knowledge and behaviour regarding the adverse effects of TBC among rural households in selected desert frontline states of Nigeria. **Materials and Methods:** A cross-sectional study was conducted among rural households in selected communities in desert frontline states of Northern Nigeria between October, 2016 and January, 2017. The study administered pretested structured questionnaire to 392 households via house-to-house survey. The households were selected based on multistage sampling technique. **Result:** The findings revealed that majority of the households possess good knowledge regarding health and environmental effects (76.0%), hazards and injuries (94.1%) and drudgery and financial burden (91.8%) arising from TBC. Majority of them practice good behaviour to minimise these adverse effects (92.9%). It includes enclosing flames, use of dry fuel, and keeping children away while cooking. Taking precautions such as storing fuelwood far from the main building, ensuring there are ventilations for indoor kitchens and locating kitchens separately from main buildings are also considered in reducing adverse effects of TBC. Findings on households' knowledge showed a significant association with behaviour towards adverse effects of TBC. **Conclusion:** It indicates that households have knowledge and approaches to reduce adverse effects of TBC. The study concluded that the households' knowledge and behaviour signalling their efforts to reducing adverse effects of TBC. Thus, both are considered as the first step in facilitating cookstove improvement programmes. This information is an integral when designing and implementing sustainable intervention strategies for cookstove improvement, particularly in rural households of developing countries.

Keyword : Knowledge; Behaviour; Traditional biomass cookstove; Adverse effects; Desert frontline states; Nigeria