

ABSTRACT

Background: As of the year 2014, about 2.5 billion people globally lacked access to improved sanitation. The situation is even worse in the sub-Saharan African countries including Kenya. The practice of open defecation (OD) peaks beyond 72% of the population in Turkana County, Kenya, despite various interventions to end it.

Methods: This article reports on both qualitative and quantitative aspects of a cross-sectional study. A partially mixed sequential dominant (quantitative) status was used to understand various socioeconomic factors associated with OD practice in Lodwar's human settlements, Turkana County. Simple random sampling technique was chosen to select participants for this study with the sample drawn from various administrative units of Lodwar. Standardized questionnaires, focus group discussions, and key informant interviews were used to collect data.

Results: The quantitative findings revealed that culture was the leading factor as to why people practiced OD with a frequency of 44%. The findings further revealed that poverty was the major influencing factor for latrine ownership among the households (frequency 27%). Pearson χ^2 tests revealed that there was a significant association between latrine presence and education level of the household head ($\chi^2 = 107.317$; $P < .05$), latrine sharing ($\chi^2 = 403$; $P < .05$), and occupation of the household head ($\chi^2 = 74.51$; $P < .05$). The quantitative findings showed that culture was by far the most common factor that contributed to the OD practice with a theme intensity of 31.1%. Further analyses identified 5 major cultural aspects that were associated with OD practice. This included sexual immorality, OD as a common habit, nomadic pastoralism, bride's dignity and mixing of feces. Open defecation as a common habit among the respondents was the most cited factor that contributed to its rampant practice (theme intensity 31.3%) followed closely by nomadic pastoralism kind of life among the residents that limit latrine construction (theme intensity 28.1%).

Conclusions: In addition to cultural aspects, high poverty levels influence latrine adoption and consequently OD practices. Future sanitation interventions addressing OD should assess and factor in these cultural aspects in such communities to come up with appropriate eradication

measures which have otherwise been difficult to solve through poverty eradication and sanitation campaigns that have been in existence.

Keywords: improved sanitation; open defecation; sanitation; sanitation access.