

SOCIO-DEMOGRAPHIC FACTORS CONTRIBUTING TO OPEN DEFECATION AMONG RESIDENTS OF TOKOKUL CELL KWEEN WARD IN EAST DIVISION, KAPCHORWA MUNICIPALITY. A CROSS-SECTIONAL STUDY.

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Abstract Background

Open defecation is a critical public health issue, particularly in low-income and rural settings, where inadequate sanitation facilities and lack of hygiene education contribute to its prevalence. This practice poses significant health risks, including the spread of infectious diseases such as diarrhea, cholera, and typhoid, which can have severe consequences for community health and well-being. This study aims to identify the demographic factors contributing to open defecation among community members of Tukokur Cell Kween Ward in East Division, Kapchorwa Municipality.

Methodology

A cross-sectional study using a quantitative approach was employed, with data collected from 80 respondents using structured questionnaires and analyzed descriptively.

Results

The majority of respondents were female (68.8%) and the minority 31.20% were males, half were aged between 19-30 years (50%), indicating a youthful population. Nearly half (47.5%) were predominantly Anglican, with over half of respondents reporting being divorced (56.3%); the Sabin tribe had half of the number 37.6 (47%) while the Bagisu tribe had the smallest number 8 (10%) of the respondents.

Conclusion

Demographically, most respondents were female, and the population was predominantly young. A significant portion identified as Anglican, and more than half were married.

Recommendation

Empower local communities by establishing community-led sanitation committees, comprising members responsible for overseeing maintenance activities of sanitation facilities and promoting hygiene education initiatives tailored to local needs.

Keywords: Socio-Demographic Factors, Open Defecation, Kapchorwa Municipality, Tokokul Cell Kween Ward.

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Background of the study

According to data compiled at the end of the Millennium Development Goal (MDG) period in 2015, a staggering 2.3 billion people, constituting 31% of the global population, continued to lack access to basic sanitation services Weststrate et. al, (2019). Within this population, 892 million individuals persisted in the practice of open defecation. At the same time, an additional 856 million relied on unimproved facilities such as pit latrines without a slab or platform, hanging latrines, or bucket latrines Fagunwa et. al, (2023). Globally, in a cross-sectional study by Exum et. al, (2020), in Rajasthan, India, 72.1% of high-income households invested in modern sanitation technologies, such as flush toilets and septic systems, significantly reducing the incidence of open defecation. The availability of financial resources enabled affordability and maintenance of advanced sanitation

infrastructure, hence reducing open defecation rates. He concluded that continued focus on constructing latrines that are affordable with low water requirements as well as monitoring progress on toilet construction and use could reduce open defecation.

Surprisingly, in Sub-Saharan Africa, a cross-sectional descriptive study by Ubi et. al, (2021), in Nigeria, found that over 64.9% of low-income households lacked the financial means to construct latrine facilities, resulting in open defecation practices. Limited access to funds hindered the ability of these households to invest in proper sanitation infrastructure, contributing to the increasing rates of open defecation. He concluded by recommending that, the government health ministry, religious leaders, community leaders, and landlords should work together in ensuring the availability of toilet facilities in homes. Also in a cross-sectional study by Ajemu et. al, (2020), in

Ethiopia, individuals with higher levels of education demonstrated greater awareness of the health risks associated with open defecation, leading to a lower prevalence Rate of 13.5% among this group. Proper hygiene knowledge contributed to behavior change, reducing open defecation rates.

In his conclusion, the desired level of latrine ownership and utilization would be realized if only all the sanitation and hygiene components in the country's health extension package were kept eye side by side in line with identified predictor factors. However, quantitative research by Eshun et. al, (2021), in Ghana, indicated that illiterate individuals made uninformed decisions, contributing to higher rates of open defecation. This prevented these individuals from understanding the health consequences of open defecation, worsening unsanitary behaviors within the community. Similarly, in East Africa, a study by Malima et. al, (2022), in Tanzania, Indigenous communities prioritized traditional sanitation methods over modern latrine facilities. Use of communal pit latrines aligned with indigenous beliefs and lifestyles, resulting in a 23.1% boost in sustainable sanitation practices and reduced open defecation rates. Conversely, research conducted by Ellis, (2020), in Kenya, revealed that 53.7% of immigrant communities faced language barriers and cultural differences in sanitation norms, impacting their adoption of latrine facilities and contributing to open defecation behaviors. Unfamiliarity with local sanitation practices led to higher rates of open defecation.

Moreover, a cross-sectional study by Mubatsi et. al, (2021), in Uganda found that almost 72.4% of larger households experienced overcrowding and limited latrine facilities, resulting in open defecation practices. Insufficient sanitation infrastructure within crowded households led to unsanitary behaviors and compromised public health outcomes. Therefore, the objective of this study is to identify the demographic factors contributing to open defecation among community members of Tukokur Cell Kween Ward in East Division, Kapchorwa Municipality.

Methodology

Study design and rationale

A cross-sectional study employing a quantitative method of data collection was used.

Study setting and rationale

The study was undertaken in Tukokur Cell Kween Ward in East Division, Kapchorwa Municipality in Eastern Uganda. This study area is geographically located between Kwoti primary school and Kwoti HCII and on the slopes of Mt. Elgon, boarded by Sironko and Bulambuli districts to the West, South, and North respectively, and Kween district to the East.

It's about 254 miles from Kampala City and 66KMs from Mbale town (kapchorwa.go.ug, 23 April 2024). Additionally, its climate and weather were human with fresh air and sweet natural water from Mt. Elgon National Park (forest) that gives an added advantage to settlement,

athletics (the home of athletes), agriculture (farming), setting up and growth of small businesses which improve on the standards of living of the people. The local people were very social and welcoming hence the name (home of friends).

I selected this area because it provided a sufficient number of respondents involved in the study.

Study population

The study population consisted of household heads or their representatives who were above 18 years of age from the study area of Tukokur Cell.

Sample size determination

A sample size of 80 respondents was selected from a given population of 100 community members received per week. A sample size was determined using Krejcie and Morgan's 1970 table (KENPRO, 2012).

Sampling procedure

The researcher used a simple random sampling method to select the required number of respondents where he wrote the words YES and NO on pieces of paper, placed them on the enclosed box, shake then offered potential respondents an opportunity to participate by picking a single paper from the box. Any respondent who picked a paper with the word YES written was requested to participate in the study. This continued until the total number of respondents to be reviewed per day was achieved. The sampling technique was chosen for this study because it ensured an equal chance of participation and reduced bias in the sample.

Inclusion and exclusion criteria

Inclusion criteria

Household heads above eighteen (18) years residents of the study area and those who consented to the study.

Exclusion criteria

Those who are ill, unavailable, unable to speak deaf, and blind.

Definition of variables

Dependent variable

The dependent variable was open defecation.

Independent variables the independent variables were social demographic factors like age, sex, occupation, education, and marital status, environmental factors like nearness to rivers or water bodies and heavy rains, socio-cultural factors like cultural beliefs, behaviors, and customs.

Research instrument

The primary data collection tools were structured questionnaires. They were written in the most simplified English language that was understood easily. The questionnaire was divided into three sections according to the study objectives.

Data collection procedure

The researcher presented an introductory letter from Kampala University School of Nursing and Health Science to the Chairman LC1 of Turkokur Cell who introduced the researcher to the community members. The researcher introduced himself to the respondents and gave a brief explanation of the study. Respondents agreed and signed the informed consent form and the researcher interviewed the respondents using face-to-face interviews. This improved efficiency and confidentiality during data collection.

Data management

The researcher edited the data before leaving the study area to ensure no mistakes or areas were left blank and corrected. The researcher stored the collected data in safe custody under lock and key and it could only be accessible by the researcher.

Data analysis and presentation

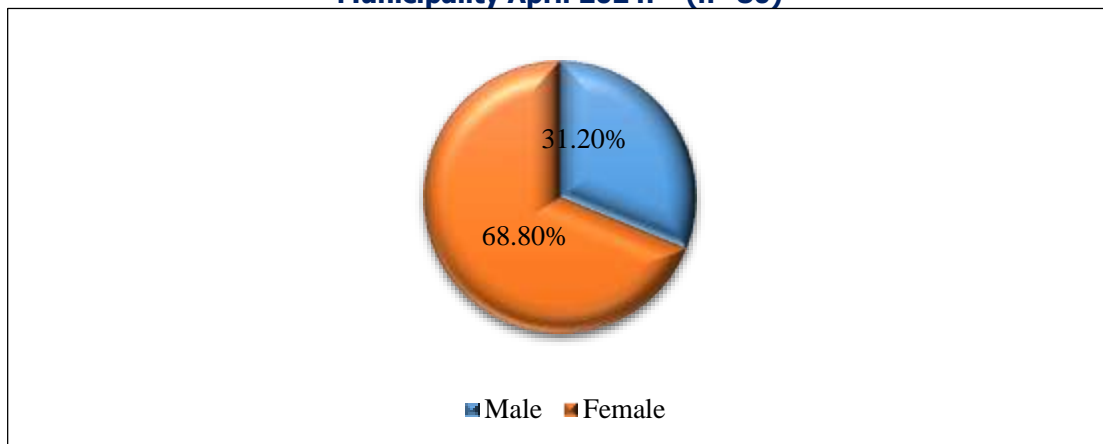
The collected data was manually analyzed and tallied and the results were processed using Microsoft Word and Excel programs. This was presented in the form of frequency tables, graphs, and pie charts.

Ethical consideration

Approval was obtained from the research supervisor; permission was sought and granted by the Principal of Kampala University School of Nursing and Health Sciences by obtaining an introductory letter. The study was commenced by the researcher introducing and explaining the topic and the objectives to respondents and they had to understand and voluntarily consent to participate in the study. The researcher affirmed to the respondents that the information was strictly confidential and numbers instead of the respondent's names were used to identify the respondents'

Results

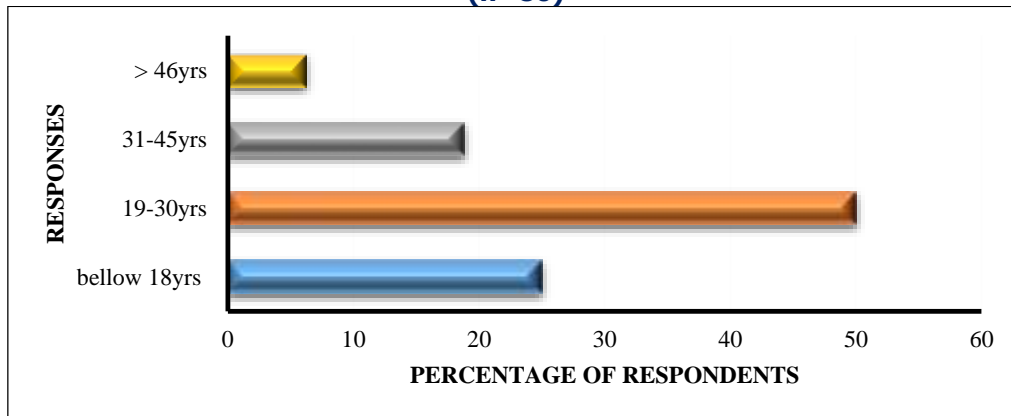
Figure 1: Shows the gender of household members of Tukokur cell Kapchorwa Municipality April 2024. (n=80)



(Source: Primary data, 2024).

Figure 1 shows that the majority 68.80% of the respondents were males and the remaining minority 31.20% were females.

Figure 1: Shows the age of household members of Tukokur Cell Kapchorwa Municipality. (n=80)

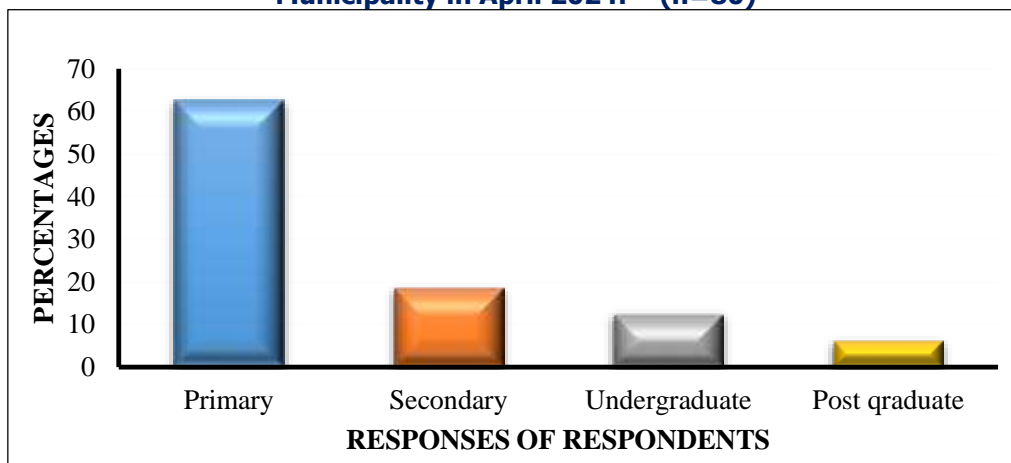


(Source: Primary data, 2024).

From Figure 2, the majority 55.04 (68.8%) of the respondents were female, while the smallest number 24.96 (31.2%) of the respondents were male.

Half 40 (50%). of the respondents were between the age of 19-30 years while the smallest number 4.96 (6.2%) of the respondents were above 46 years.

Figure 2: Shows the education level of household members of Tukokur Cell Kapchorwa Municipality in April 2024. (n=80)



(Source: Primary data, 2024).

From Figure 3, the highest number 50 (62.5%) of the respondents were in primary whereas the post-graduates had the lowest number 5.04 (6.3%) of the respondents.

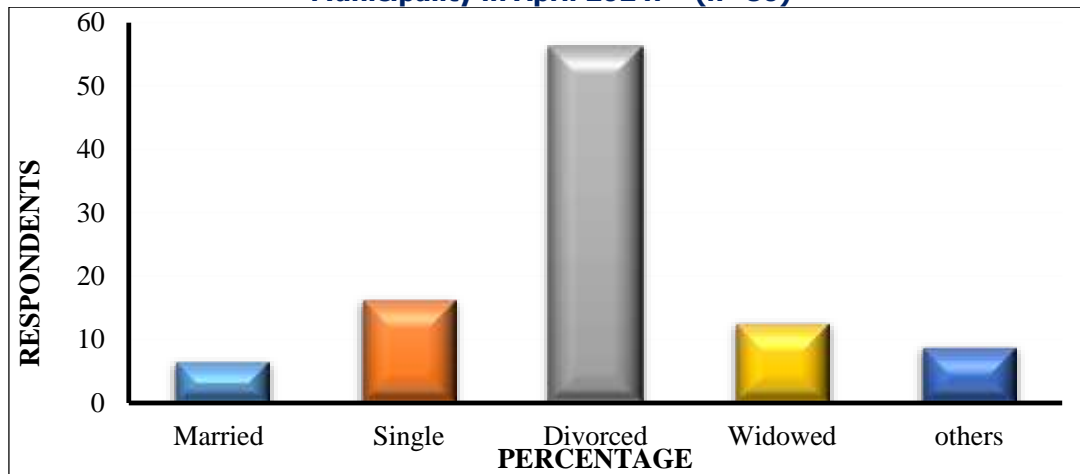
Figure 3: Shows the religion of household members of Tukokur Cell Kapchorwa Municipality in April 2024. (n=80)



(Source: Primary data, 2024).

From Figure 4, among the respondents, the Anglican religion had the highest percentage of 38 (47.5%) while the Muslim religion had the lowest percentage of 10 (12.5%) of the respondents.

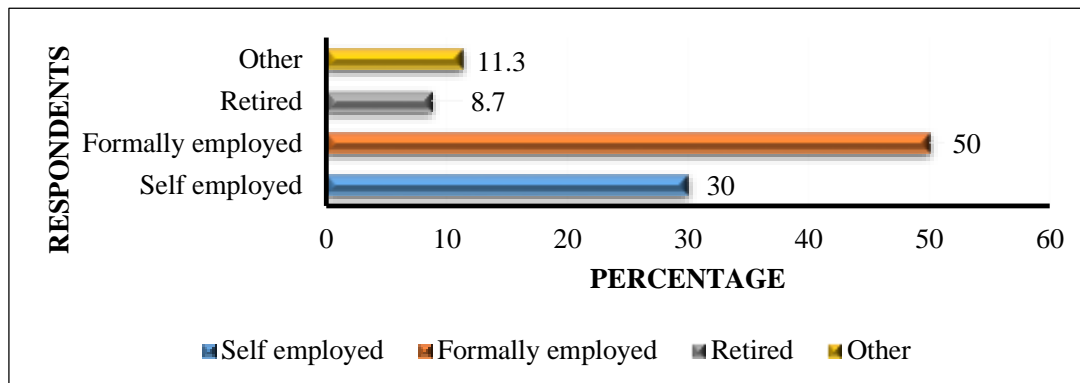
Figure 4: showing the marital status of household members of Tukokur Cell Kapchorwa Municipality in April 2024. (n=80)



(Source: Primary data, 2024).

From Figure 5, among the respondents, the divorced marital status had the highest percentage 45.04 (56.3%) while the married marital status had the lowest representation 5.2 (6.5%) of the respondents.

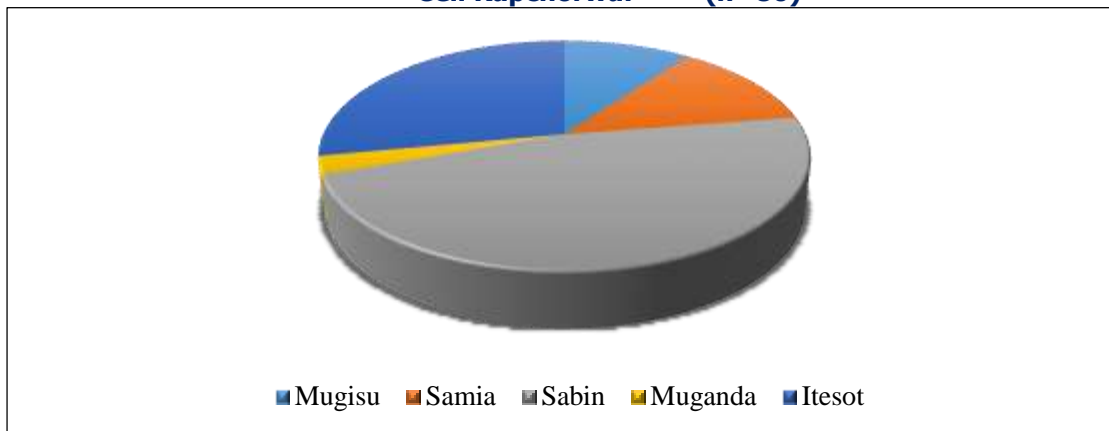
Figure 5: Shows occupation of household members of Tukokur Cell Kapchorwa Municipality April 2024. (n=80)



Source: Primary data, 2024

From Figure 6, among the respondents, those formally employed constituted half of the number 40 (50%) of the respondents whereas individuals with other occupations represented a smaller number 9.04 (11.3%) of the respondents.

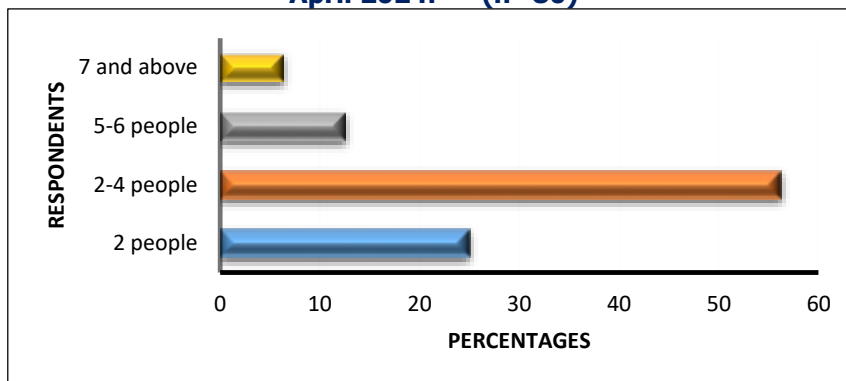
Figure 6 Shows the tribe of household municipality April 2024. olds members of Tukokur Cell Kapchorwa. (n=80)



(Source: Primary data, 2024).

Among the respondents in Figure 7, the Sabin tribe had half of the number 37.6 (47%) while the Bagisu tribe had the smallest number 8 (10%) of the respondents.

Figure 7: Shows the number of households in Tukokur Cell Kapchorwa Municipality in April 2024. (n=80)



(Source: Primary data, 2024).

From Figure 8, at the Top of the Form in terms of the number of households, those with 3-4 people had a majority number 44.96 (56.2%) of the respondents while those with 7 people and above had a smaller number 5.04 (6.3%) of the respondents.

Discussion

The majority 55.04 (68.8%) of the respondents were female. This suggests that women were more likely to participate during the days of study, reflecting broader societal trends where women are often more engaged in healthcare-related activities, including seeking medical care. This is in line with a study conducted by Batte, (2023), which revealed that women had awareness of proper sanitation practices, leading to lower instances of open defecation. Fear of UTIs resulted in sanitary behaviors among women within households and communities.

Half 40 (50%) of the respondents were between the age of 19-30 years. This age range most likely indicates young adulthood in a period marked by various transitions,

including pursuing higher education, starting careers, and establishing independence. This is in contrast with a cross-sectional study conducted by Nlunda, et. al, (2022), in DR Congo where 81.3% of elderly individuals with mobility issues received support in accessing latrine facilities, reducing the likelihood of open defecation.

Nearly half 38 (47.5%) of the respondents reported belonging to the Anglican religion. This is probably the most predominant religion in the study area, influencing Societal belief systems and norms. This is in line with a mixed-method formative study conducted by Ellis et. al, (2020), in Kenya which revealed that 53.7% of immigrant communities faced language barriers and cultural differences in sanitation norms, impacting their adoption of latrine facilities and contributing to open defecation behaviors.

More than half 45.04 (56.3%) of the respondents mentioned being married. This suggests that a significant portion of the surveyed individuals have made a commitment to a long-term partnership or union, which may influence various aspects of their lives. Conversely,

in a study conducted by Bagalwa et. al, (2024), in Uganda, 41.7% of single-person households had better access to and control over private latrine facilities, reducing the likelihood of open defecation.

Among the respondents, those formally employed constituted half of the number 40 (50%). This may imply that a significant portion of the surveyed population chose entrepreneurial endeavors or pursued independent business ventures as their primary means of employment, reflecting a desire for autonomy, flexibility, and control over their work lives. Conversely, a cross-sectional descriptive study conducted by Ubi et. al, (2021), in Nigeria, found that over 64.9% of low-income households lacked the financial means to construct latrine facilities, resulting in open defecation practices.

The majority of respondents identified themselves as Sabins 40 (50%). This is probably because the study was conducted in Kapchorwa which is the native area of settlement for the Sabin people. This is in line within a study conducted by Bagalwa et. al, (2024), who revealed that most native societies in the Eastern part of Uganda had strict sanitary conduct embraced by the traditional norms.

The availability of private sanitation infrastructure promoted hygienic practices and reduced open defecation rates among individuals living alone.

About half 44.96 (56.2%) of the respondents mentioned staying in a household of 3-4 people. This suggests that a substantial portion of the respondents may have implications for various aspects of their lives, including social dynamics, resource allocation, and caregiving responsibilities. This is in contrast with a study by Bagalwa et. al, (2024), in Uganda, 41.7% of single-person households had better access to and control over private latrine facilities, reducing the likelihood of open defecation.

Limitations of the study

Lack of confidence among the respondents; some respondents tended to be reluctant to respond to some questions.

Cultural and personal bias by some of the respondents showed up as a result of not having latrines. Weather challenges especially too much rainfall and excessive coldness.

Conclusion

The demographic characteristics of household members in Tukokur Cell, Kapchorwa Municipality, reveal that the majority were male and young, primarily aged between 19-30 years. Education levels were mostly at the primary level, and Anglicanism was the most common religion. A significant portion of respondents were divorced, while the married population was notably smaller. Employment data indicated that half of the respondents were formally employed. The Sabin tribe was the predominant ethnic group, and most households consisted of 3-4 members, indicating medium-sized family units. These findings highlight the socio-demographic landscape and suggest

areas for potential social and economic development interventions.

Recommendation

Empower local communities by establishing community-led sanitation committees, comprising members responsible for overseeing maintenance activities of sanitation facilities and promoting hygiene education initiatives tailored to local needs.

Acknowledgment

The one above all creatures God the Great Provider is acknowledged for the extraordinary wisdom He gave me to accomplish this research and course.

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List of Abbreviations

MDG: Millennium Development Goals.
WHO: World Health Organization.

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This study was not funded

Conflict of interest

No conflict of interest declared

Author Biography

Jacob Sande is a student of Diploma in Nursing Extension at Kampala University School of Nursing and Health Sciences, Rogers Isabirye is a tutor at Kampala University School of Nursing and Health Sciences, Grace Denise Akwang is a principal tutor at Kampala University School of Nursing and Health Sciences.

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