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**DELIVERING WATER, SANITATION AND HYGIENE SERVICES
IN AN UNCERTAIN ENVIRONMENT**

**Gender and sanitation perspectives
in Kampala's slums, Uganda**

I. K. Tumwebaze, Uganda

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The perceived access to sanitation facilities for most urban slum dwellers in developing countries may have similar or varying viewpoints from the gender context. To comprehend such gender differentiations, this paper presents an analysis of results from a cross-sectional survey conducted in 2010 from 50 randomly chosen slums in Kampala. The findings show that sanitation has a greater effect on women than men. Gender positively correlated (Pearson chi-square values < 0.05) with the type of toilet facilities used (shared and private toilets) and satisfaction. The variables such as having separate toilet rooms for males and female, water for hand washing after using a toilet and a toilet room having a big space were also important gender attributes.

Introduction

Gender is literally refers to societal social constructs used to define roles and responsibilities assigned to male or female by virtue of their biological sex. Scott (1986) argues in the past historians referred to gender as a synonym for women, there are no separate spheres for men and women. Gender rather denotes a cultural construction that entails the social creation of ideas about the appropriate roles for women and men (Scott, 1986). However, such societal conceptualizations of the roles and responsibilities ascribed to women and men have often created a sharp divide in decision making, management spheres, accessibility and resource utilization such as in health (Braveman, 2006). To eliminate such disparities, promotion of gender equality and women empowerment is forms the third factor of the millennium development goals (MDGs) (UN, 2009). The United Nations' declaration of access to water and sanitation as a human right is an extra commitment to the millennium development goals (MDGs) aimed at steering continued progress towards developing countries' attainment of access to improved sanitation (UN, 2010). While this goal is a positive initiative towards overcoming societal disparities disfavours women position in society, clear explicit indicators relating to education, employment and political participation need to be put into perspective of the holistic service systems in society (Kabeer, 2005).

Like in other service structures, gender analysis is increasingly becoming a key factor in health and sanitation services, with most women found to play a significant role in hygiene education and maintenance of sanitation facilities (Kudat and Weidemann, 1991). While some authors postulate that both men and women need to be included at all stages of urban development (Beall, 1996), it is also reported that active involvement of women in sanitation leads to programs' success and sustainability (Hoque et al., 1994). Increased appreciation and involvement of women in sanitation services is likely to lead to an increased progress in reducing the estimated two and a half billion people still having no access to improved sanitation facilities (UNICEF and WHO, 2012). The objective of this paper is thus to assess gender sanitation perspectives in Kampala's slums.

Methodology

This paper presents a gendered analysis of slum dwellers sanitation situation in Kampala. The data analysed on gender is part of my PhD studies field survey on households' demand and behaviour towards improved sanitation in Kampala's informal settlements. A cross-sectional survey in 50 randomly selected slums of

Kampala was conducted in 2010 to assess their sanitation situation (Tumwebaze et al., 2012). Using a semi-structured questionnaire, a total of 1,500 household respondents were interviewed by a team of trained research assistants. In each of the slum (zone) - the last unit of the administrative structure, 30 household respondents were selected systematically through random route sampling. In the zone, systematic sampling was used to enrol household respondents. Due to the close proximity of the households and housing blocks, the starting household respondent was randomly selected and the consequent respondents after skipping every three housing blocks. On the household block, only one household respondent who consented to take part in the study was interviewed. If the first household respondent declined to be interviewed, the interviewer moved to the next household.

Results and discussion

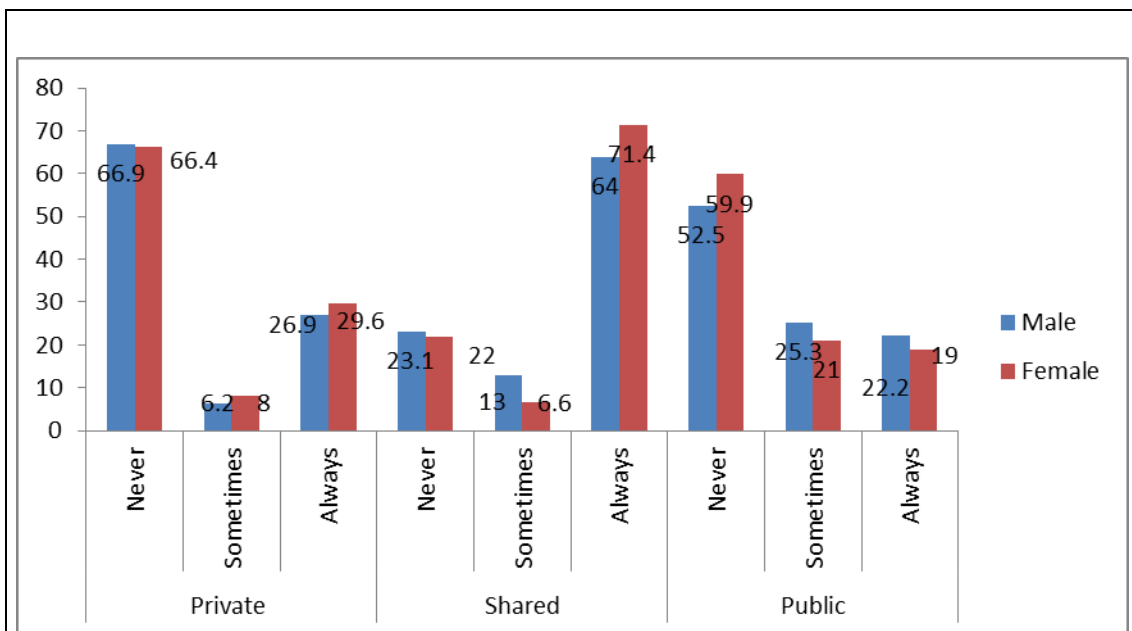


Figure 1. Different sanitation facilities used in 50 randomly selected slums of Kampala, 2010

Pearson chi-square values : private = 0.24, shared toilet = 0.01, public = 0.04

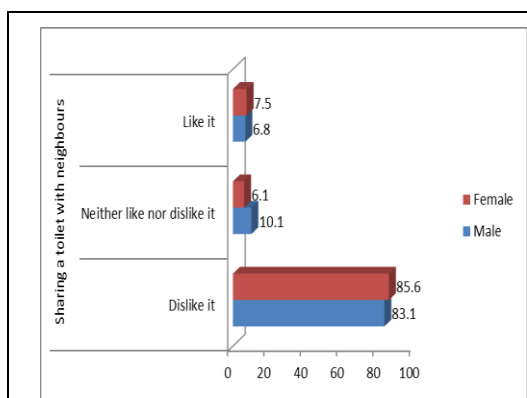


Figure 2. Sharing sanitation facility room with neighbouring households

Pearson chi-square = 0.11

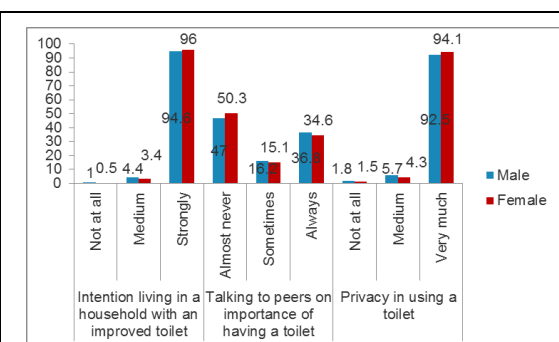


Figure 3. Expressed intention, talking to peers and perceived privacy in using a toilet

Pearson chi-square for intention = 0.40, talking to peers = 0.54, privacy in using a toilet = 0.49

Figure 1 shows the regularity by households' respondents in the use of private, shared and public sanitation facilities. The majority of male and female respondents reported never using private sanitation facilities. Less than a third of the respondents reported using private sanitation facilities always, with females the most users compared to males. Shared toilets are the most used as reported by households' respondents, with females still the most users. Public facilities like private ones were never used by most households (Male = 52.5, Female = 59.9 respectively). Unlike the case with private and shared facilities, the use of public toilets was more among males than females.

Secondly, the study found no significant gender difference (Pearson chi-square, 0.24) among users of private sanitation facilities. However, there was a significant association between gender and the users of shared and public sanitation facilities (Pearson chi-square, 0.00 and 0.04).

While shared toilets are the most commonly used in the slums of Kampala (Figure 1), over eighty percent of the male and female respondents expressed dislike in having to share toilet rooms with neighbours. As presented in Figure 2, the majority of male and female respondents expressed dislike towards sharing a sanitation facilities (toilet rooms) with neighbours. The proportion of female respondents was slightly more than that of males in the case of dislike while a four percent difference existed with more male respondents reporting neither liking nor disliking sharing facilities with neighbours.

The test for statistical significance according to the pearson chi-square since it is greater than 0.05 shows that there no significant difference between gender and perceived liking towards sharing a toilet room with neighbouring households.

The results in figure 3 show respondents' perceived responses towards expressed intentions to live in a household that has an improved toilet, talking to peers on the importance of having a toilet and perceived privacy in using a toilet. In the first section of the intention to live in a household with an improved toilet, both male and female respondents expressed stronger intentions by over ninety percent of the respondents. It is also shown that female respondents had slightly more strong intentions than their male colleagues. However, the pearson chi-square test (0.40) which is not significant since it is greater than 0.05 shows means that there is no significant difference between gender and the perceived intention to live in a household that has an improved toilet. The results in section two show that males are more likely than females to talk to their peers about the importance of having a toilet. Lastly, results in section three of figure 3 show that both males and females agree that using a toilet provides them with privacy. However, females expressed slightly more concern than the males.

Table 1. Satisfaction with sanitation facilities accessible to households in 50 randomly selected slums in Kampala				
Respondent's sex	Satisfaction	Household sanitation facilities		
		Public	Shared	Private
Male	dissatisfied	41	131	23
		71.9%	53.7%	27.7%
	neither satisfied nor dissatisfied	8	24	4
		14.0%	9.8%	4.8%
	Satisfied	8	89	56
		14.0%	36.5%	67.5%
		57	244	83
		100.0%	100.0%	100.0%
Female	dissatisfied	86	430	60
		76.8%	55.9%	27.0%
	neither satisfied nor dissatisfied	8	39	17
		7.1%	5.1%	7.7%
	Satisfied	18	300	145
		16.1%	39.0%	65.3%
		112	769	222
		100.0%	100.0%	100.0%

Pearson chi-square for both male and female, < 0.05

Table 1 represents the comparison of satisfaction with the public, shared and private sanitation facilities used by household respondents in Kampala's slums while controlling for gender. From the table, three quarters of male and female users of public facilities were not satisfied with them, followed by users of shared facilities that consisted more than a half of both male and female respondents. Female respondents were the most dissatisfied in their use for both public and shared sanitation facilities. On the other hand, more than two thirds of both male and female respondents using private sanitation facilities reported

being satisfied in using them. Male respondents derived slightly more satisfaction than their female counterparts.

Furthermore, the Pearson chi-square statistical value of less than 0.05 implies that users' satisfaction of the toilet facilities used is an important to both males and females.

Table 2. Gender variations on the important features for an improved private and public toilets			
Variable	Gender	Frequency	Percentage
Improved private toilet features			
Female and male separation ^a	Male	293	23.6
	Female	949	76.4
Not sharing with other families	Male	207	26.8
	Female	566	73.2
Relatively lower emptying costs or rarely emptied	Male	302	25.7
	Female	871	74.3
Cannot see into the pit ^a	Male	303	27.8
	Female	788	72.2
Light inside the room	Male	311	26.0
	Female	884	74.0
Room does not heat up	Male	338	25.8
	Female	975	74.2
Room has a big space ^a	Male	329	26.9
	Female	893	73.1
Improved public toilet features			
Toilet close to the house ^a	Male	338	24.9
	Female	1018	75.1
Open day and night	Male	239	26.6
	Female	661	73.4
Cannot see into the pit	Male	313	25.7
	Female	907	74.3
Light inside the room	Male	321	26.1
	Female	908	73.9
Room does not heat up	Male	352	25.9
	Female	1006	74.1
Room has a big space	Male	342	25.9
	Female	977	74.1
Lockable door from inside the toilet room	Male	271	26.4
	Female	756	73.6
Bathroom available on the toilet	Male	297	26.2
	Female	836	73.8

^a significant factors (Pearson chi-square test < 0.05)

Table 2 shows gender correlated values of the features respondents mentioned as important for an improved private and public sanitation facilities. The significant features whose Pearson chi-square test values are less than 0.05 are marked with a superscript alphabetical letter a.

Firstly, the important features an improved sanitation facility should have as mentioned by male and female respondents include; having separate toilet rooms for males and females, not sharing toilet with other families, facility rarely emptied or whose emptying costs are low, facility where users do not see into the pit, having light in the toilet room and the toilet room having a big space. The other features analyzed that the male and female respondents did not mention as so important were; toilet being close to the household, having water for hand washing, no smell and the facility superstructure constructed using bricks and cement. Of the important features mentioned for an improved private toilet, only features such as having separate toilet rooms for males and females, facility where users do not see into the pit and the toilet room having a big space were most significant as indicated by the Pearson chi-square test < 0.05. The feature of a private

toilet having separate toilet rooms for male and female users may seem rather a surprise since the users may be from the same family unlike for shared or private toilets. But considering biological and behavioral experiences of menstrual hygiene among females, their comfort needs consideration. In addition, if a toilet is inadequately constructed that users have to see into the pit, users such as children as they may not use if for fear that they may fall in the pit (Burra et al., 2003). Furthermore, a study conducted on diarrhea and effects of different water sources, sanitation and hygiene behavior in East Africa found that it was not necessarily the type of toilet facility that would expose a user to contracting diarrhea but rather the conditions of using the facility (Tumwine et al., 2002).

Secondly, the important features mentioned by male and female respondents for an improved public toilet included: closeness to the house, light inside the toilet room, room not heating up during a hot day, open day and night, toilet room having a lockable door and a bathroom on the toilet. The other features analyzed for a public toilet that both male and female respondents mentioned as not so important were; having separate toilet rooms, water for hand washing, no waiting time before one can use the toilet and for the toilet to always be clean. Of all the all features that an improved public toilet ought to have, a toilet being close to the house was the only significant to both male and female respondents (Pearson chi-square < 0.05). This could be due to security reasons. A public toilet located far from the household may be insecure to use at night. It is reported in a behavioral study conducted in Ghana that the distance to the toilet facilities was one of the reasons users disliked the toilets they were using (Jenkins and Scott, 2007). While availability of water for washing hands after using the toilet would improve hand hygiene and reduce the risk of contraction or spread of diarrhea among toilet users (Bartlett, 2003, Graf et al., 2008), this study shows it is not much a priority among the interviewed respondents.

However, what is most clear from the results in Table 2 is that while the displayed features were important to both male and female respondents, the magnitude of importance is about three times more important for females than it is to males. These results are not different from those reported in other studies. While it is visible that good sanitation is a concern for both males and females, women tend to show greater responsibility as they are often most affected alongside children by vices of poor sanitation and hygiene practices (Van Der Hoek et al., 2001, Burra et al., 2003, Jenkins and Curtis, 2005).

Conclusion

This study has revealed that sanitation is an important factor to the lives of males and females in Kampala's urban slum communities. Although shared toilets are the most used on-site sanitation facilities in the studied communities, the gendered responses show almost equally stronger dislikes in sharing a toilet with neighbors, stronger intentions to live in a household having an improved toilet and privacy to use a toilet. The results also pause technological questions in the design or construction of the sanitation facilities to ensure that the toilet rooms are big enough, users do not have to look into the pit when easing themselves and should have adequate light. Lastly, while sanitation is important to both males and females, all results in this study show that women are greatly more affected or even concerned when it comes to the issues of sanitation. Thus, inclusion of women ideas in the design and construction of sanitation facilities, and their proper management could consequently contribute to improved hygiene and reduction in the prevalence of diseases resulting from poor sanitation and hygiene practices.

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Contact details

Mr. Innocent K. Tumwebaze
University of Zurich, Department of Psychology,
Rämistrasse 71, CH-8006, Zurich Switzerland
Tel: +256 774 266559 (Uganda mobile number)
Email: kamarainnocent.tumwebaze@uzh.ch
innocent.kamara@eawag.ch, kamara.innocent@gmail.com
