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Sanitation practice and associated factors among slum dwellers residing in urban slums of Addis Ababa, Ethiopia: A community based cross-sectional study

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Attaining sustainable sanitation in urban slum community is still an issue and continues to be a gap. Furthermore, factors associated with sanitation practices among slum dwellers has not been yet well explored in many low income countries, such as Ethiopia. This study was designed to determine the sanitation practice and associated factors among slum dwellers residing in urban slums of Addis Ababa, Ethiopia. A community based cross-sectional study was employed. The systematic random sampling technique was used to select households from the slum community in Addis Ababa, Ethiopia. A pre-tested structured interviewer administered questionnaire was used to collect data. Descriptive statistics were computed. Multivariable logistic regression analysis was used to identify associated factors. A total of 335 slum dwellers were involved in the study, of which 64.5% of the households use unimproved sanitation facility and 78.3% of the sanitation facilities were in poor condition. Less than half, 46.9% (95%CI: 41.5, 52.2%) of the slum dwellers had good sanitation practices. Having an improved sanitation facility (AOR= 7.27, 95%CI: 3.09, 17.05), having pour-flush type of sanitation facility (AOR= 4.32, 95%CI: 1.99, 9.39), presence of solid waste collection container inside the house compound (AOR=4.26, 95%CI: 2.02, 8.97), and good hygienic knowledge (AOR=4.37, 95%CI: 1.87, 10.24) were factors associated with good sanitation practice. Poor sanitation practices and unhygienic sanitation facilities were widely reported by slum dwellers and acute in the urban slum of Addis Ababa. Escalating household improved sanitation facilities along with strong health promotion programs on sanitation and hygiene practice is recommended.

Key words: Urban sanitation, sanitation practice, hygiene knowledge, informal settlements, slum, Kirkos sub-city, Addis Ababa, Ethiopia.

INTRODUCTION

Attaining sustainable sanitation is still an issue and continues to be a gap throughout the globe. In addition, the disease burden as a result of inadequate and poor sanitation practice is escalating. Worldwide, poor sanitation practice is responsible for 4% of deaths and 5.7% of morbidity (WHO and UNICEF, 2012; WHO and UNICEF, 2014).The World Health Organization (WHO) estimates that 1.5 million preventable deaths per year

result from unsafe water, inadequate sanitation or hygiene and these deaths are mostly among children less than five years old (Prüss-Üstün et al., 2008a). In 2010 and 2011 alone, about eight million children died before reaching the age of five, and diarrhoea resulted to 250 million lost school days mainly due to poor sanitation facilities and unhygienic conditions (UNICEF, 2012; Walker et al., 2013). Those who suffer the most of these water-related challenges are the urban poor, often living in slum areas or informal settlements following rapid urban growth, in situations lacking many of life's basic necessities: safe drinking water, adequate sanitation services and access to health services, durable housing and secure tenure (WHO and UNICEF, 2012; UNICEF, 2012; Walker et al, 2013; WHO, 2009; Prüss-Üstün et al., 2008b).

According to United Nation (UN)-HABITAT, sanitation and hygiene challenges in slums is described in terms of poor basic services, such as access to sanitation facilities as well as safe water sources (WHO, 2009; Dagdeviren and Robertson, 2011). WHO estimates that approximately 2.6 billion people worldwide live with inadequate sanitation and the health risks are severe for the urban poor living in slum conditions (WHO, 2002). The rapid urbanization and the mismatch in the provision and maintenance of basic necessities in these areas even lead to origin and spread of diseases (Shukla et al., 2016). In this regard, urban areas all over Africa, despite local and regional differences have much in common; poor water supply coupled with inadequate waste collection and no facilities for disposal of excreta is a typical condition for most urban settlements in Africa (Erik and Uno, 1994; Kwacha and Egejuru, 2010; Joséphine et al*.,* 2008). Among the world's regions, Sub-Saharan Africa continue to have the lowest levels of sanitation facility coverage; 44% of the population uses either shared or unimproved facilities (WHO and UNICEF, 2012; WHO and UNICEF, 2013; WHO and UNICEF, 2014). This situation was worse among urban slum dwellers, mainly due to poor sanitation facilities and unhygienic conditions (Erik and Uno, 1994; WHO and UNICEF, 2013; Mubarak et al., 2016). Studies reported the slum environment to be high risk for diarrhoea; due to close proximity of sanitation facilities to homes, sharing of sanitation facilities, and poor hygiene of the sanitation facilities and housing compounds (Mubarak et al., 2016). Overcrowding and poor sanitation in these areas also lead to high parasite transmission rates through closer proximity of the infected to larger vulnerable populations and infections thrives in these conditions (Brooker et al*.,* 2006). Several studies also reported intestinal parasitic infections are common in high risk vulnerable populations such as urban slums (Mbae et al*.,* 2013; Akimbo et al*.,* 2011; Appleton et al., 2009).

People living in slums are not only vulnerable and at high risk of diseases and high mortality in addition unsafe, inadequate, and unhygienic sanitation results in multiple and overlapping health, economic, and social impacts that disproportionately impact women and girls living in urban slums; the impacts on women's health include infectious and chronic illnesses, violence, food contamination and malnutrition, economic and educational attainment, and indignity (Isunju et al*.,* 2011; Corburn and Hildebrand, 2015).

According to the well-known F diagram, disease is transmitted first from feces to fluids, fields, flies, or fingers, and then directly to a new host or indirectly through food (US Agency for International Development, 2004). To discontinue these passageways, sanitation is the vanguard measure to prevent transmissions from faeces regardless of the area, either urban or rural settlements (Mubarak et al., 2016; US Agency for International Development, 2004).

In Ethiopia, access to safe sanitation services is still among the lowest in Sub-Saharan Africa (CSA, 2011; CSA, 2014). In addition, the country suffers a variety of deprivation related to waste management (Van Rooijen and Taddesse, 2009; Bizatu and Negga, 2010; Tewodros et al*.,* 2008; Kassie, 2016; Sahiledengle et al*.,* 2018). Although sanitation has been a long stand problem in urban slums of Ethiopia, there is still a gap in quantifying the sanitation practice of slum dwellers, and identification of factors that affect sanitation practice and strategies to control them is yet to be established (Abdissa and Walelegn, 2016). To attain sustainable sanitation in slum areas and to prevent the dramatic problems linked with sanitation requires reliable data, since, sanitation does not exist in isolation, identifying and understanding the associated factor is equally crucial. Thus, this study aimed to assess the sanitation practice and associated factors among slum dwellers residing in urban slums of Addis Ababa, Ethiopia.

MATERIALS AND METHODS

Study area, design and population

A community based cross-sectional study design was employed in one of the slum areas in Addis Ababa (Ethiopia), in Kirkos sub-city, District 11. The study was conducted from March 9 to 17, 2015. The

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source population of the study was all households found in District 11 and the study population were randomly selected households. Individuals above 18 years old (household head/spouse) and who lived in the district for six or more months were included. If the randomly selected house is a public or a private organization it was excluded.

Sample size determination and sampling technique

The sample size was calculated using Epi-Info version 3.5.1 software (Center for Disease Control and Prevention, Atlanta, 2004) using single population proportion formula by considering 50% proportion of sanitation practice, 95% confidence interval (CI) and a 5% margin of error. Accordingly, the sample size was 384. Since the source population (n=4,580) is below 10,000, finite population correction was considered and by adding the possible 10% non-response, the final sample size was 392 households. The systematic random sampling technique was used to select households from the district and every 12 household was included. For households which did not fulfil the inclusion criteria, the next household was considered.

Data collection and quality

A pre-tested structured questionnaire was used to collect data by trained ten data collectors. The data collection tool was developed by reviewing relevant literatures and by adapting the content from related studies (WHO, 2009; WHO and UNICEF, 2013; CSA, 2014). The questionnaire was prepared in English and translated to Amharic (local language) and translated back to check its consistency. The overall data collected process, data completeness and consistently was closely supervised. Sanitation practices of the household were assessed by 11 items with three points Likert-type scale of always, sometimes and never. The Cronbach's alpha reliability coefficient value of the scale was 0.78.

Measurement and variables

The primary outcome variable of the study, sanitation practices refer to safe disposal of human excreta (faeces and urine) and household waste water disposal, proper segregation, collection and disposal of solid wastes, safe water handling and maintenance of personal and domestic hygiene. To classify sanitation practice, a composite score was constructed and respondents who score more than the mean value of all the sanitation practice questions classified as having a good sanitation practice otherwise poor practice. The independent variables included; socio-demographic characteristics (age, sex, marital status, family size, educational status of the household head/spouse, occupational status of the household head/spouse, monthly income), sanitation facility (type of latrine, location of latrine and latrine ownership), availability of water, housing ownership, presence of on-site solid waste collection containers, and hygiene knowledge.

Data analysis

Data were entered into Epi data 3.1 (Epi Data Association, Odense Denmark) and exported to SPSS 20.0 version (Armonk, NY: IBM Corp) for further analysis. Descriptive statistics and bivariate analyses were computed. To detect the independent factors of sanitation practice, multivariable logistic regression analysis was performed. Over all goodness of fit was checked using the Hosmer and Lemeshow chi square test. Adjusted odds ratio (AOR) with corresponding 95% confidence interval (CI) was used to quantify the strength of association and p-value ≤ 0.05 was considered as statistically significant.

Ethical considerations

The study was approved by Jimma University Ethical review committee and a written consent was obtained from the study participants.

RESULTS

Socio-demographic characteristics of the study population

A total of 335 households were interviewed which gives 85.5% response rate. Seven in every ten respondents interviewed were female (245, 73.1%). The mean (standard deviation) age of the respondents were 39.33 (±14.53) (Table 1).

Solid waste and domestic liquid waste management practice

This study showed that 242 (72.2%) of the respondents have access to solid waste storage container in their surroundings. Two-third, 215 (64.2%) of the households reported they use the municipality solid waste disposal container for disposal of solid wastes and the remaining 120 (35.8%) households disposed solid waste by different methods [such as open field dumping (74%), burning in the compound (16%), and burying (10%)]. One hundred and twenty (38.2%) of the households reported they segregate solid wastes. Regarding domestic liquid waste disposal practice, two-third of the households (220, 65.7%) dispose liquid waste into open drainage ditch, 76 (22.7%) in an open field, 22 (6.6%) in septic tank and 17 (5.1%) use soak pit.

Sanitation and hygiene status of households

Majority (242, 72.3%) of the households had some form of pit latrine. Almost half, 176 (52.5%) of them were found unclean at the time of data collection and 215 (64.5%) of the households use unimproved sanitation facility and 73 (21.7%) of the sanitation facilities were in good condition. It was shown that there was a significant association between type of sanitation facility and educational level [X^2= Chi-square test (17.91), df= degree of freedom (2), p<0.000], monthly income (X^2=5.45, df=1, p=0.02) and house ownership (X^2 = 15.65, df = 2, p<0.000) (Table 2).

Table 1. Socio-demographic characteristics of slum dwellers in Addis Ababa, Ethiopia (n=335).

Variables	Category	Frequency	Percent
Age	18-25	59	17.6
	26-35	82	24.5
	36-45	93	27.8
	46-55	50	14.9
	56-65	24	7.2
	≥66	27	8.1
Sex	Female	245	73.1
	Male	90	26.9
Marital status	Married	177	52.8
	Single	90	26.9
	Separate	27	8.1
	Widowed	41	12.2
Occupation status	House wife	118	35.2
	Student and unemployed	100	29.9
	Daily laborer and merchant	62	18.5
	Government employee and NGO employee	55	16.4
Education status	No education	36	10.7
	Read and write	65	19.4
	Primary education	50	14.9
	Secondary education	134	40.0
	Diploma and above	50	14.9
Family size	1-4	178	53.1
	5-7	127	37.9
	≥8	30	9
Average monthly income in Ethiopian Birr (ETB)	<500	65	19.4
	500-1000	83	24.8
	1001-2000	97	29.0
	2001-3000	61	18.2
	>3000	29	8.7
House ownership	Owner	94	28
	Rented	97	29
	Government	144	43

Regarding the core preventive methods of diarrhoea, hand washing practice was the most frequently stated prevention methods by 255 (76.1%) households. On the other hand, 315 (94.9%) of the households reported they wash their hands after visiting the toilet and among this 277 (87.9%) wash their hands with soap and water, and the remaining 38 (12.1%) use water only. Two hundred and sixty five (79.1%) (95%CI: 74.6, 83.3%) of the households had good hygiene knowledge. Based on the cut off point set, 157 (46.9%) (95%CI: 41.5, 52.2%) of the households had good sanitation practice and the remaining, 78 (53.1%) 95%CI: (47.8, 58.5%) of the

Table 2. Association between type of sanitation facility and different variables among slum dwellers in Addis Ababa, Ethiopia (n=335).

Variables	Type of sanitation facility		Total (%)	X^2	P-value
	Pit latrine (%)	Pour-flash type of latrine (%)			
Educational status					
No formal education	32(13.2)	4(4.3)	36 (10.7)	17.91 df= 2	P<0.000*
Read and write + primary education	94(38.8)	21(22.6)	115(34.3)		
Secondary and above	116(47.9)	68(73.1)	184(54.9)		
Income					
<1700 ETB	156(64.5)	47(50.5)	203(60.6)	5.45 df=1	P= 0.02*
≥ 1700 ETB	86 (35.5)	46(49.5)	132(39.4)		
Housing ownership					
Owner	55(22.7)	39(41.9)	94(28.0)	15.65 df=2	P<0.000*
Rent	69(28.5)	28(30.1)	97(29.0)		
Governmental	118(48.8)	26(28.0)	144(43.0)		
Cleanliness of the latrine♣					
Unclean	104(43.0)	72(77.4)	176(52.5)	31.96 df=1	P<0.000*
Clean	138(57.0)	21(22.6)	159(47.5)		
Sanitation facility condition ♣♣					
Good	53(21.9)	20(21.5)	73(21.8)	0.006 df=1	P=0.937
Poor	189(78.1)	73(78.5)	262(78.2)		
Sanitation facility status♣♣♣					
Unimproved	180(74.4)	35(37.6)	215(64.2)	39.46 df=1	P<0.000*
Improved	62(25.6)	58(62.4)	120(35.8)		
No of households served by shared sanitation facility (215)					
≤ 6	115(79.3)	31(44.3)	146(67.9)	26.57 df 1	P<0.000*
>6	30(20.7)	39(55.7)	69(32.1)		
Proximity of sanitation facility (n=325)					
> 6 meters	96(41.0)	7(7.7)	103(31.7)	49.72 df=2	P<0.000*
≤ 6 meters	125(53.4)	60(65.9)	185(56.9)		
Inside the home	13(5.6)	24(26.4)	37(11.4)		
Sanitation facility with hand washing facility					
Yes	79(32.6)	15(16.1)	94(28.1)	9.08 df=1	P=0.003*
No	162(67.4)	78(83.9)	241(71.9)		

df= degree of freedom, * p-value < 0.05 , X^2= Chi-square test. ♣ Presence of flies in and around the latrine, presence of faeces on the floor or around the sanitation facility, filth smells, and filled; ♣♣ Sanitation facilities in good condition if the they were clean, not filled, having properly constructed superstructure, well fitted door, un- broken slab and presences of hand washing facility;
♣♣♣ Sanitation facility considered improved if they were not shared by two or more households.

households had poor sanitation practice.

Water supply

All the households reported that they use pipe water as the main sources of water supply for all domestic purposes. However, the respondents reported that it is not adequate for personal hygiene (199, 59.4%), domestic purpose (179, 53.4%) and drinking (122, 36.4%). Two hundred and fifty six (76.4%) of the households had awareness on how to making water safe for drinking.

Factors associated with sanitation practice

Multivariable logistic regression analysis was performed, to check the correctness of the final model, Hosmer and Lemeshow test for the overall goodness of fit was used, and the value became 0.381 that is insignificant, which means the final model was correct. The result of this study showed that, married household heads/ spouse were four times more likely to have good sanitation practice as compared to widowed [Adjusted odds ratio (AOR), 95% Confidence Interval (CI)] = (AOR= 4.25, 95%CI: 1.48, 12.47); households having improved latrine facility were seven times more likely to have good sanitation practice than those who use unimproved sanitation facility (AOR= 7.27, 95%CI: 3.09, 17.05). In this study, households with pour-flush type of latrine were four times more likely to have good sanitation practice as compared to those who had pit latrine (AOR= 4.32, 95%CI: 1.99, 9.39); households having solid waste collection container in their compound were four times more likely to have good sanitation practice as compared to their counter parts (AOR= 4.26, 95%CI: 2.02, 8.97). Moreover, households with good hygiene knowledge were four times more likely to have good sanitation practice as compared to their counter parts (AOR= 4.37, 95%CI: 1.87,10.24) (Table 3).

DISCUSSION

This study was conducted to assess the sanitary practice and associated factors of the urban slums residing in Addis Ababa. In this study, almost all the households had some form of latrine, among this 72.3% of them had a pit latrine. This finding is in agreement with a previous study conducted in Addis Ababa (Ethiopia) (Van Rooijen and Taddesse, 2009) and dissimilar with a report from Kersa District (East Ethiopia) which reported that 91.7% of households had pit latrine (Bizatu and Negga, 2010). In the present study, 35.8% of households had improved latrine facility. This finding is lower as compared with a study finding from urban slum of Pokhara sub-metropolitan (Nepal) which reported 74.72% households had improved non-shared latrine (Acharya et al., 2015). In this study, it was witnessed that 52.5% of the sanitation facilities had a foul smell, unclean and need repair; that is lower than a study from Kersa, which reported 67.3% of the studied household latrine witnessed the presence of flies in and around the latrine (Bizatu and Negga, 2010). This finding is also higher than a study conducted in North Ethiopia that reported 22.6% of the cases witnessed foul smell and and had inconvenience during use (17.8%) (Ashebir et al., 2013); this inconsistence may be due to study area difference; since our study was conducted in urban slum area that is characterized by poor sanitation facility and the presence of faeces on the floor might also be explained due to presence of shortage and interruption of water supplies as it is reported by the majority of households. The other possible explanation might be that users are not devoted to cleaning shared latrines. A similar finding also reported from Bangladesh revealed that 61% of the latrines had observable faeces (Alam et al., 2013). Despite, 76.1% of the respondents know that hand washing practice was the core preventive methods for diarrhoeal diseases; majority of the households (71.9%) had no functional hand washing facility which is a serious concern since having a hand washing facility had a positive implication and advantageous over preventing feco-oral transmission (Rabie and Curtis, 2006).

This study also showed that 74% of the households practice open dumping of solid wastes. This finding was consistent with a study from Kersa (38.5%) (Bizatu and Negga, 2010) and similar solid waste dumpling practices was also reported from Northern Ethiopia (Tewodros et al*.,* 2008). The practice of indiscriminate throwing of refuse was reported by Shukla et al. (2016), from Lucknow, capital of Uttar Pradesh.

In this study, 46.9% of the households had good sanitation practice. This finding was closely related to a similar study from Addis Ababa which reported 43.89% of the households practice sanitation (Abdissa and Walelegn, 2016). Related finding from Kabul (Afghanistan) showed poor hygienic activities among urban slums (Mubarak et al., 2016). A study from slum of Lucknow, capital of Uttar Pradesh, also reported households had unsafe practices towards water storage and handling (Shukla et al*.,* 2016).

This study also revealed that households having improved sanitation facilities were more likely to had good sanitation practice than those who use unimproved sanitation facility. This affirmation is also in agreement with a study report from Addis Ababa (Abdissa and Walelegn, 2016), and a systematic review report, that showed households with shared sanitation facilities were

Table 3. Factors associated with sanitation practice among slum dwellers in Addis Ababa, Ethiopia (n=335).

Variables	Sanitation practices		Crude OR (95%CI)	Adjusted OR (95% CI)
	Good n=157	Poor n= 178		
Sex				
Male	52	38	1.83(1.12-2.98)*	2.78(0.91-8.49)
Female	105	140	1	1
Marital status				
Single	44	46	1.85(0.86-3.97)	2.88 (0.85-9.71)
Married	92	85	2.09(1.03-4.24)*	4.25(1.48-12.47)**
Separate	7	20	0.68(0.23-1.98)	2.75(0.63-11.92)
Widowed	14	27	1	1
Responsibility in the home				
Housewife	77	114	1	1
Husband	80	64	2.87(1.19-1.85)*	0.63(0.23-1.72)
Housing ownership				
Owner	68	26	1	1
Rented	43	54	0.30(0.17-0.56)*	0.58(0.22-1.51)
Governmental home	46	98	0.18(0.10-0.32)*	0.73(0.30-1.79)
Educational status				
No formal education	13	23	1	1
Read and Write + primary education	40	75	0.94(0.43-2.06)	0.46(0.15-1.45)
Secondary and above	104	80	2.30(1.09-4.82)*	0.42(0.13-1.36)
Occupational status				
Housewife	55	63	1	1
Governmental and NGO employee	29	26	1.28(0.67-2.43)	1.99(0.76-5.22)
Daily laborer and merchant	19	43	0.51(0.26-0.96)*	0.59(0.22-1.61)
Student and unemployed	54	46	1.35(0.79-2.29)	1.09(0.43-2.82)
Income				
<1700 (ETB)	81	122	1	1
≥ 1700 (ETB)	76	56	2.04 (1.31-3.19)*	1.13(0.58-2.19)
Sanitation facility status				
Unimproved	61	154	1	1
Improved	96	24	10.45(6.09-17.93)*	7.27(3.09-17.05)**
Type of sanitation facility				
Pit latrine	87	155	1	1
Pour-flush latrine	70	23	5.42(3.16-9.29)*	4.32(1.99-9.39)**
Proximity of sanitation facility (n=325)				
>6 meter	29	74	1	1
≤6 meter	97	88	2.81(1.68-4.72)*	1.44(0.71-2.92)
Inside the home	25	12	5.32(2.36-11.96)*	1.23(0.34-4.43)

Table 3. Contd.

Presence of solid waste collection container inside house compound witnessed				
Yes	116	99	2.26(1.42-3.59)*	4.26(2.02-8.97)**
No	41	79	1	1
Hygiene knowledge				
Good	108	157	3.39(1.92-5.97)*	4.37(1.87-10.24)**
Poor	49	21	1	1
Availability of water				
≥ 5 days/week	79	35	4.99(2.67-9.32)*	2.49(0.99-6.32)
3-4 days/week	54	90	1.33(0.74-2.39)	0.69(0.31-1.59)
≤ 2 days/week	24	53	1	1

OR= Odds Ratio, *Significant association (P≤ 0.05) crude, ** Significant association (p ≤ 0.05) adjusted

poorer than those that did not shared (Heijnen et al*.,* 2014). In support of this, the Joint Monitoring Programme (JMP) for water supply and sanitation of WHO and United Nations Children's Fund (UNICEF) reported that shared sanitation facilities tend to be less hygienic and less accessible than private sanitation facilities (WHO and UNICEF, 2012; WHO and UNICEF, 2014). In addition, sharing of a sanitation facility strongly is associated with the presences of acute diarrhoea among slum children (Adane et al*.,* 2017). A case study by Simiyu et al. (2017) from Kisumu (Kenya) examined the quality of shared sanitation facilities and reported they were dirty, and their quality decreased with an increase in the number of households sharing them.

In this study, households using pour-flush sanitation facility were more likely to have good sanitation practice as compared to those who had pit latrine. Similar finding also reported from Northern Ethiopia shows that sanitation practice gets lower in households who own simple pit latrine (Abdissa and Walelegn, 2016). This can be explained by the fact that, pit latrines are low quality as compared to pour-flush type of sanitation facility in terms cleanliness (Nakagiri et al*.,* 2015; Sonego and Mosler, 2014; Simiyu et al*.,* 2017). As well, they are found at the bottom of sanitation ladder compared to water carriage system.

The other factor which was significantly associated with good sanitation practice is hygiene knowledge of the study participants. In this study, those respondents who had good hygiene knowledge were about four times more likely to have good sanitation practice than those who do not. The result presented here suggests that with improved hygiene knowledge of slum residents, sanitation practice can also be improved. As one described, where adequate improved latrines already exist, changing behaviour may be an effective means of improving health without significant bricks-and-mortar investment (Buttenheim, 2008). Another factor which was significantly associated with sanitation practice is the presence of solid waste collection container inside the household compound.

Limitation of the study

The present study has some limitations that must be considered. As this is a cross-sectional study, limitations that come with this type of design need to be taken into account. In addition, the bias attributable to self-reporting practice should be considered while interpreting the findings.

Conclusions

The study reveals that the household sanitation practice of slum dwellers was very low and unhygienic sanitation facilities are acute in the urban slum of Addis Ababa. Having improved sanitation facility having pour-flush type of latrine, the presence of the solid waste collection container inside the house compound and good hygiene knowledge were factors associated with good sanitation practice. Hence, escalating household improved sanitation facilities along with strong health promotion program on sanitation practice is strongly recommended.

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CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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