



# Socio-Cultural Factors Influencing Child Faecal Matter Disposal among Caregivers in Wadajir District in Mogadishu- Somalia

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## Summary

### BACKGROUND

Diarrhea kills 2,195 children every day-more, than AIDS, malaria, and measles combined. Under-five mortality rate in Somalia is presently the third worst in the world after Angola and Chad. Though there are multiple contributory causes, childhood diarrhea is one of the leading causes of child mortality. There is a plethora of evidence suggesting that diarrheal diseases is acquired through ingesting food, water or any other fluids contaminated with human excreta, hence safe disposal of children's feces is as essential as the safe disposal of adults' feces. This study aimed at assessing the socio-cultural factors influencing disposal of child fecal matter among care givers of children aged 5 years and below in Wadajir District in Mogadishu, Somalia.

### METHODOLOGY

This study adopted a qualitative approach. Data was collected using Key informants. Key informant sample size was determined using the data saturation approach. Qualitative data was analyzed thematically using the NVivo software.

### RESULTS AND CONCLUSION

The key themes which emerged indicated that: perception that 'child fecal matter is not harmful', lack of gender sensitive latrines, culture of open defecation, low literacy levels among care givers, internal displacement and poverty, and Islamic religion influenced disposal of child fecal matter, were the main sociocultural factors influencing disposal of child faecal matter.

### RECOMMENDATION

To reduce diarrhea infections in Mogadishu, there is need to promote proper child fecal matter disposal. We recommend development and implementation of hygiene and sanitation interventions; promoting construction and utilization of latrines as well as health education interventions targeting care givers in Wadajir District, Mogadishu, Somalia.



**Key words:** Diarrhea, Socio-Cultural Factors, Child Fecal Matter Disposal, Mogadishu

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## Introduction

Worldwide, diarrhea kills 2,195 children every day—more than AIDS, malaria, and measles combined. Each year diarrhoea kills around 525 000 children under five years age [1]. The situation is more precarious in Somalia than any other country in the Eastern Africa region. Diarrheal diseases remain one of the most dangerous killers of children in Somalia -- killing an estimated 8,759 children in 2015, accounting for 14.5% of all deaths of children under the age of 5. Recurrent cholera outbreaks, enabled by cycles of floods and famine, contribute to high mortality rates from diarrhea on a yearly basis [2]. Child mortality due to diarrhea is likely to continue at this level as long as access to safe water and proper sanitation remains low.

In North East Zone (NEZ), 51% of respondents to UNICEF's Multi-indicator Cluster Survey (MICS) reported using improved water sources and 64.8% reported using improved sanitation [2]. The under-five mortality rate (U5MR) in Somalia is presently the third worst in the world after Angola and Chad. One in seven Somali children dies before their fifth birthday. As of 2015, neonatal deaths were estimated at 40 per 1,000 live births and the infant-mortality rate at 85 per 1,000 live births. Though there are multiple contributory causes to these high levels of neonatal, infant and child mortality, child diarrhea is one of the leading causes of child mortality together with vaccine-preventable diseases and malaria[3] [4]. A World Health Organization (WHO) and UNICEF health bulletin for Somalia indicates that new cases of acute diarrhoea including Acute Watery Diarrhoea (AWD) and Cholera are gradually increasing in Somalia[4].

Research has established a significant correlation between disposal of child fecal matter and the incidence of child diarrhea diseases [5]. Human excreta and the lack of adequate personal and domestic hygiene have been implicated in the transmission of many infectious diseases including cholera, typhoid, hepatitis, polio, cryptosporidiosis, ascariasis, and schistosomiasis.

The WHO estimates that 2.2 million people die annually from diarrhoeal diseases and that 10% of the population of the developing world are severely infected with intestinal worms related to improper waste and excreta management [6]. Safe disposal of children's feces is as essential as the safe disposal of adults' feces. Access to adequate and equitable sanitation and hygiene for all and open defecation is still an issue and a crosscutting problem throughout the globe and in particular the developing world [6].

Mogadishu has the largest concentration of Internally Displaced Persons (IDP), at nearly 370,000[3]. According to the latest UN population figures for Somalia (UNPESS), IDPs comprise 9 per cent of the Somali population. IDPs mainly belong to minorities or minority clans, suffer discrimination, and have fewer formal social protection mechanisms[3]. Majority of people living in the IDP camps live in poor sanitation and hygiene conditions. Though the country has benefited from several hygiene and sanitation promoting interventions, a recent survey indicates that 29% of respondents reported that they continued to practice open defecation [2].

The aim of this study was to establish the socio-cultural factors influencing safe disposal of faecal matter among caregivers of children aged 5 years and below living in Internally Displaced Persons' Camps in Wadajir District of Banadir Region in Somalia.

The need to reduce diarrheal diseases among children living in IDP camps in Somalia cannot be overemphasized. This study will provide objective insights on interventions that can be implemented to help reduce incidence rate of childhood diarrhea in IDP camps. This in turn will help in reducing child mortality rates associated with childhood diarrhea in Somalia.



## Materials and Methods

This study was carried out in Wadajir district of Banadir region in Somalia. Wadajir is in Banadir administrative region in South-Eastern Somalia, situated on the Indian Ocean Coast of the Horn of Africa. The study employed a cross-sectional study design. Qualitative Data was collected from Key informants working as volunteer Community Health Workers in Banadir region.

A total of 11 Key informants were interviewed. The principle of data saturation was used to determine the number of Key Informants (KIs) to be interviewed in the study. Data was analyzed using thematic analysis.

## Results

Though this paper is purely qualitative, it was part of a larger study which employed both quantitative and qualitative methods. Part of the quantitative arm of this study explored the parents/caretaker practices in regard to disposal of faecal matter of children aged under five years in Banadir region of Mogadishu. In order to bring the qualitative results of this section into perspective, it is important to present a summary of these results. Table 1 presents a summary of the parents/care taker practices in regard to child faecal matter disposal in Banadir region.

In regard to qualitative data, a total of 6 themes emerged which include (1) perception that 'child fecal matter is not harmful', (2) lack of gender sensitive latrines, (3) culture of open defecation, (4) low literacy levels among care givers, (5) internal displacement, and (6) Islamic religion.

### 1. Perception that Child Faecal Matter is Not Harmful

All the nine key informants stated that majority of parents and care takers believe that faecal matter from children is not harmful. The following is three data sets from the key informant's verbatim.

*"Mothers believe that child poop has no germs and therefore cannot harm anyone, that is why they can throw it on the open ground to decay"* Key informant 2

*"Caretakers/mothers believe children poop is safer than adults' poop and it cannot cause harm if left uncovered"* Key informant 1

*"Mothers believe that no one has ever been infected by poop from children, that's why if left on the ground, it is not harmful"* Key informant 8

### 2. Lack of Gender Sensitive Latrines in IDP Camps

Majority of key informants indicated that mothers/caregivers find it hard to dispose children faecal matter in latrines especially in IDP camps because the latrines are not gender sensitive.

*"Most women feel instead of going to the latrine and meeting a man there, they would rather throw child faecal matter in the dustbin"* Key informant 4

*"Most donors did not take into consideration that women need their own private latrines and that is why majority of care givers who are women do not use latrines to dispose child faecal matter..... Because there is a danger of meeting a man in the latrine which is not allowed by our religion"* Key informant 6

### 3. Culture of Open Defecation

All the nine key informants indicated that open defecation is a widespread culture in Mogadishu and Somalia in general and therefore disposing children faecal matter in the open is normal and acceptable.

*"Here people are used to defecating in the bush ..... throwing child poop in the open is not a big problem"* .... Key informant 4

*"Why will anyone have a problem with throwing child poop...or leaving child poop in the open ground, if they themselves defecate in the open? ...people are used to seeing poop everywhere."* Key informant 11



#### **4. Low Literacy Levels among Mothers/Caregivers**

Key informants indicated that majority of the caregivers have very low literacy levels and they even don't even know that they could be infected by exposures associated with child faecal matter.

*“Majority of our women are not educated.... they even don't know the dangers associated with faecal matter...that's why they will dispose it in the open”* Key informant 7

*“Our women did not attend any formal education...this is the main cause of ignorance in our society...they don't associate children faecal matter with disease occurrence...that is the reason faecal matter is disposed like any other household garbage”*  
Key informant 9.

#### **5. Internal Displacement and Poverty**

The Key informants indicated that internal displacement has caused poverty in the community and as a result community has lagged behind in many development issues including access to proper sanitation. This in turn has led to poor sanitation practices including improper disposal of children faecal matter.

*“We have been experiencing insecurity which has displaced so many people.....this has caused disorientation in families.....and fueled poverty....poverty comes with all sorts of inadequacies including lack of adequate sanitation facilities...this is the cause of open defecation and improper disposal of children faecal matter”* ..Key informant 10

*“We dispose children faecal matter in the open simply because we lack proper sanitation facilities...we are poor...displacement does not give people time to grow economically”* Key informant 8

#### **6. The Islamic Religion**

All the eleven Key informants identified Islamic faith as a key determinant of the way caregivers/mothers of children under five years dispose children faecal matter.

*“Abu Maalik AL-Ash'ari (Allah be pleased with him)-the messenger of Allah said “cleanliness is a part of faith....In most households where the parents are strong in Islamic faith...children faecal matter is disposed in latrines....compound is free from faecal matter”....Key informant 9*

*“The hall mark of Muslim community is the abundance of places of convenience and adequate sewerage system in homes and public places....Islam advocates for keeping the body and the surrounding sane.....Ensuring cleanliness that encompasses every part of the human being to his or her surroundings...from the seat of the body which is the heart that should be purified through outward part of the body that should be washed frequently..... spreading all the way to the surroundings.....such teachings make improper disposal of child faecal matter unacceptable among the Muslims”.* Key Informant 8

#### **Discussion**

This study identified five practices regarding disposal of children faecal matter in Banadir region which include burying in soil, leaving child's faecal matter in the open to decompose, throwing into the composite pit, and wrapping with diapers and throwing it in the pit latrine. The study further identified six socio-cultural factors influencing disposal of child faecal matter which include perception that 'child fecal matter is not harmful', lack of gender sensitive latrines, culture of open defecation, low literacy levels among care givers, internal displacement, and Islamic religion.

In regard to child faecal matter disposal, over 75% practice open defecation.



Quantitative data from the larger study indicates that only 24.4% ensure that children faecal matter is properly covered. Though this data differs from a similar survey conducted by UNICEF and African Voices which suggests that only 29% was found to be practicing open defecation [2].

Qualitative data collected from this study points out that there are several sociocultural issues that support open defecation in Banadir region. Out of the six sociocultural factors influencing disposal of children faecal matter, only one (Islamic religion) appeared to be supporting proper disposal of children faecal matter. This is perhaps the reason why prevalence of open defecation is high in Banadir region. Those findings are supported by a recent humanitarian survey conducted by Somalia humanitarian country team and partners which indicates that Somalia is facing a double tragedy in regard to access to adequate sanitation [7].

There is a steady increase in displacement and many IDPs suffer from secondary displacement. This is coupled with refugee returnees from Dadaab camp in Kenya. The two factors put a lot of pressure to existing sanitation facilities which perhaps could be a contributing factor to improper disposal to children faecal matter.

Without access to a latrine, care takers/ mothers are left with limited options which include; burying children faecal matter underground, leaving faecal matter in the open to decompose, throwing faecal matter into the composite pit, and using diapers and throwing it in composite pit, as indicated in the quantitative data (Table 1).

In regard to the socio-cultural issues influencing disposal of children faecal matter, all the six identified factors are typical to any Somali community living in displacement. By the fact that most of the people in Banadir region are internally displaced, it is expected that they do not have adequate access to sanitation facilities and therefore, have developed a culture of open defecation over time.

In Southern Nigeria a study, conducted to investigate management of children faecal matter, associated poor households with high odds of unsafe disposal of children faecal matter[9].

In India, a survey conducted to investigate factors influencing safe disposal of child faecal matter, associated wealth, access to latrine, and having a formal education with greater odds of safe disposal of children faecal matter [5]

Lack of formal education could perhaps be the reason they believe that child faecal matter is not harmful. A study conducted in Ethiopia indicates that women with lower levels of education or no education at all were found to be less likely to properly dispose children faecal matter [8]. Another study conducted in Bengal India associated unsafe disposal of children faecal matter with maternal education and average household income [11].

A recent Cochran's review on interventions to improve disposal of children faeces and prevent diarrhea recommends use of health education to help educate people on the negative effects of unsafe disposal of child faecal matter [10].

The fact that the community does not have adequate sanitation facilities is an implication that the few latrines available are not gender sensitive and thus this will influence how caretakers, mostly women, will dispose faecal matter of their children.

Lastly the community members are largely Muslim in faith and it is expected that Islamic faith will influence sanitation practices including disposal of children faecal matter. In Odisha, India another study associated religion (being Christian or Muslim), care giver level of education and presence and location of a latrine in the household with higher odds of safe disposal of children faecal matter.

## Conclusion

In Banadir region of Somalia, there are five practices used by caregivers in of under five children faecal matter. These include; burying in soil, leaving children faecal matter in the open to decompose, throwing into the composite pit, and wrapping with diapers and throwing it in the pit latrine. Six socio-cultural factors were found to be influencing disposal of children faecal matter in the region. These are; perception that 'child fecal matter is not harmful', lack of gender sensitive latrines, culture of open defecation, low literacy levels among care givers, internal displacement, and Islamic religion.



To effectively improve safe disposal of children faecal matter among care givers, we recommend interventions which will focus on the following; health education among care givers, provision of gender sensitive latrines, Community led methods which advocate for cessation of open defecation like Community Led Total Sanitation (CLTS), promotion of peace which could stop internal displacement, and community empowerment to help eradicate poverty. Such interventions have potential to improve safe disposal of children faecal matter and reduce burden of child diarrheal diseases in Somalia.

## What is already known on this

### Topic:

- Unsafe disposal of children faecal matter is associated with high prevalence of children diarrheal diseases
- Somalia has a high prevalence of Childhood diarrheal diseases
- Under-five mortality rate in Somalia is high and childhood diarrheal diseases is among the causes of child morbidity and mortality

## What this study adds to the

### Topic:

- The practices regarding disposal of children faecal matter in Banadir region of Somalia
- Socio-cultural factors influencing safe disposal of children faecal matter in Banadir region of Somalia
- Basic elements to include in health interventions aimed at improving safe disposal of children faecal matter in Somalia

## Competing interest

The authors declared that they had no competing interests.

## Authors' Contributions

BAS, JMN and SM conceived the research Idea. BAS collected data; JMN and CM guided and supervised BAS in data analysis. JMN, SM, and CM guided BAS in writing the manuscript. AK read the research work and added intellectual input.

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## Appendix

Table 1: Parents/Caretaker Practices regarding Disposal of Under Five-year Faecal Matter in Banadir Region of Somalia

***Table 1: Parent's/Caretaker Practices Regarding Disposal of Under Five-Year Faecal Matter in Banadir Region of Somalia***

Practice	Freq.	%	Cumulative %
Burying in soil	13	2.8	2.8
Leaving it in the open to decompose	2	0.4	0.4
Throwing into the composite pit	67	14.5	14.5
Using diapers and throwing it in the pit latrine	100	21.6	21.7
Using diapers and throwing it in composite pit	279	60.4	60.5
Total	461	99.8	100.0