

# Factors Influencing Handwashing Practice Among Primary School Children Attending at Altadamun School, Mogadishu-Somalia

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**Abstract:** Background: this study investigated factors influencing hand washing practice with special focus to educational factors, socioeconomic factors and cultural factors influencing hand washing practice among primary school children attending at Altadamun School, Mogadishu-Somalia. Factors the main objective of this study is factors influencing hand washing practice remain a major problem in developing hygiene related diseases among primary school children. Methods: the study employed descriptive approach and sought to cover the descriptive elements of the research process. Data collected using questionnaire, and SPSS statistical software version 16 was used to analyze the dataset whereby total of 184 respondents selected from primary School children attending at Altadamun School were participated in this study. Results: this study presents critical analysis of the involvement of factors influencing hand washing practice among primary School children Mogadishu-Somalia. The findings of the study revealed that awareness of the respondents about hand washing practice was very low due to lack of education about the importance of hand washing and cultural influences. The findings from objective one of this study implies other findings that revealed lack of education of pupils about hand washing practice increases their risk of becoming exposed to hygiene diseases. According to the second objective of this study, findings from the result in Tables 12, 13 and 9 showed that all the respondents never washed their hands while at School. This finding still agrees with Piney, Jamison and others (2000). In view of the fact, based on the finding from the result of the analysis in Tables 16, 17 and 18 respectively indicated that all the respondents were not often washed their hands with soap before eating food. This finding agrees with the Rosen, UNICEF and others in the 2007 findings from the study carried out Grange school in Nigeria. Conclusion: this study recommends that there is a need for water, sanitation and hygiene lessons in school curriculum to be taught at schools, setting up hand washing facilities in all public and private schools as well as cultural change through community awareness.

**Keywords:** Hand Washing, Practice, Sanitation, Hygiene, School Children

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## 1. Introduction

The increased burden of communicable diseases among school children due to poor personal hygiene practices and inadequate sanitary conditions remains a concern on the public health agenda in developing countries [1]. School children are particularly vulnerable to neglect of basic personal hygiene due lack of knowledge and practice. Poor

knowledge, practice of and attitudes to personal hygiene such as hand washing play major roles in the high incidence of communicable diseases and therefore has negative consequences for a child's long-term overall development [2]

Worldwide about 400 million children are infected with worms due to poor hand washing practices. These worms consume nutrients from children, therefore causing abdominal pain and malfunction, impair their learning

capacity and thus reduce school attendance [3].

Indeed, even though the above issues are noticeable, ideal handwashing is currently not as immense as favored around the world. It has been referenced that the recurrence of handwashing with cleaning cleanser sooner than managing dinners or after the utilization of a bathroom used to be found in exclusively somewhere in the range of 0% and 34.0% of occurrences (WHO, 2008). Place for Disease Control and Association for Professionals in Infection Control and Epidemiology has made clues for handwashing. To stress the essentialness of handwashing, October 15 has been proclaimed as the Global Hand Washing Day through UNICEF since 2008.

School staff was unable to teach children basic hygiene if the school did not have a sufficient number of latrines, lacked toilet paper and was not kept adequately clean. Hygiene behavior influences the pattern of diarrheal spread. The risk of pathogen spread from young children to other members of the family. The specific behaviors that have received most attention with regard to their role in promoting the transmission of enteric pathogens are water handling behavior, latrine utilization behavior, and hand-washing [4].

Hand washing practice depends on the knowledge acquired concerning the practice; most schools have lessons on hygiene issues and the leading to a height rate of awareness among children. Nevertheless possession of knowledge does not necessarily guarantee the performance of the corresponding behavior. For example in Nigeria, although school children had good knowledge on hygiene they still could not able to put the knowledge into practice due to inadequate school sanitation facilities. In Tanzania, some initiatives have been done thought the introduction of hand washing campaign programs in schools [5]. Moreover, awareness ways of preventing parasitic infections among primary school, children in Tanzania was four high in the intervention schools compared to those in control schools that the effects of hand washing education schools were not sustained over time. Therefore, there is a need to reinforce factors that sustain hand washing practice. Instructive intercessions to advance hand washing school setting to improve information and mindfulness about sound hand cleanliness to decrease the spread of contaminations and have been related with diminished truancy, and gastrointestinal diseases, and expanded consistency with hand washing. An individual, or specialist, might be bound to wash their hands when they get why and how to do it, Patterns of wellbeing advancing conduct [6].

**Knowledge of importance of hygiene:** The provision of knowledge of safe water and sanitation hygiene in schools is the first step towards a healthy physical learning environment, benefiting both learning and health. For this reason, pupils reduce their risk of becoming exposed to diseases when they are empowered with appropriate knowledge of water sanitation hygiene and provided with suitable facilities. However, the mere provision of facilities does not necessarily make them Sustainable or produce the desired impact. This is because poor hygiene behaviour is the

most significant barrier to the control of many infectious diseases [7]. Keeping hands clean through improved hand hygiene is one of the most important steps we can take to avoid getting sick and spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean, running water. If clean, running water is not accessible, as is common in many parts of the world, use soap and available water, if soap and water are unavailable, use an alcohol-based hand sanitizer that contains at least 60% alcohol to clean hands [8].

**Knowledge of importance of hand-washing**

Handwashing alludes to the activity of washing hands with an un-cured cleanser and water, or water alone, to eliminate earth and transient vegetation to forestall cross transmission. Clean hand washing alludes to a similar methodology when a germ-free specialist is added to the cleanser. The hands of wellbeing laborers (HCWs) are the most widely recognized methods of transmission of microorganisms starting with one patient then onto the next, from one territory of the patient's body to another, and from a dirtied climate to patients [9].

**Socio-economic factors influencing hand washing practice**

Studies in agricultural nations reliable have demonstrated that the absence of cleanser is one of the obstructions to hand washing in government-funded schools; since the greater part of these schools have neither cleanser nor fitting handwashing offices, additionally stated that few non-industrial nations reliably announced the absence of cleanser and inaccessibility of water [10]. Since legitimate handwashing with cleanser under running water requires the utilization of cleanser and just a modest quantity of clean running water from a tap or an ad-libbed tap tremendous plastic pail and "poly tanks" (hard plastic compartments purposively intended for water stockpiling) are fitting devices and were the usually extemporized hand-washing offices in the schools [11].

**Income of parents**

Numerous individuals in low-pay networks can't bear the cost of cleanser and use debris or soil are all things considered. Ash or soil may be more effective than water alone, however, might be less successful than soap. Evidence quality is poor. One concern is that if the dirt or debris is tainted with a microorganism it might build the spread of infection as opposed diminish it. Like the cleanser, ash is also a disinfecting agent (soluble), WHO prescribed debris or sand as an alternative to soap when soap is not available [12].

## 2. Problem of the Statement

Helpless school disinfection and cleanliness is a significant issue in creating countries. Helpless cleanliness conduct stays are very dangerous, conduct progressively answerable for high water and disinfection related illnesses among grade school going kids. Numerous flare-ups of gastrointestinal diseases have been related to essential schools. Upgrades in cleanliness conduct are the main boundary to numerous irresistible sicknesses because, with safe-conducts and suitable offices, individuals diminish their danger of getting

presented to illness. all Most water and sterilization are related to infections use must be forestalled by improving various cleanliness practices [13].

Handwashing promotion programmers are increasingly being progressively being actualized in non-industrial nations to improve kid wellbeing and advancement. Since schools are the important settings for disease transmission, school-based interventions aiming at mitigating communicable diseases are likely to reduce the overall community disease burden. As per the WHO/UNICEF Integrated Global Action Plan for Pneumonia and Diarrhea (World Health Organization, 2013).

Improving the admittance to safe drinking water, providing adequate sanitation, and advancing good hygiene conduct, for example, hand-washing with cleanser, are fundamental for forestalling the runs. In grade schools, intercessions good hand-washing with hygiene have demonstrated to the powerful in decreasing irresistible sicknesses in students. Potential limitations incorporate including the absence of cleanser and water and the absence of adequate hand washing facilities. Expanding the arrangement of cleanser and water for hand-washing has caused diminishes in truancy. what's more, a few examinations have detailed a relationship between legitimate hand-washing conduct and the accessibility and availability of hand-washing offices [14].

Although there are many studies related to the problem under investigation have been conducted in many parts of the world, however there is literature gap in the study area. Therefore, this study is intended to bridge this literature gap and find out factors influencing hand washing practice among Altadamun primary school children.

### 3. General Objective

To determine factors influencing hand washing practice among primary school children in Altadamun school wadajir district, Mogadishu, Somalia.

Specific objectives

1. To assess educational factors influencing hand washing practice among primary school children
2. To identify socio-economic factors influencing hand washing practice among primary school children
3. To determine cultural factors influencing hand washing practice among primary school children

### 4. Methodology

The study was Descriptive and Cross-sectional in design. It was descriptive in design because it intended to describe factors influencing hand-washing practice among primary school children. The area of this study is Wadajir District, the study populace was representative 184 primary school children in Altadamun school. Data was reviewed, edited and entered into computer and to be analyzed by software program statistical package for social sciences (SPSS) version 16.0.

## 5. Ethical Consideration

The written ethical approval and clearance was obtained from research ethics committee in Somali International University (SIU). Every respondent was asked for permission to complete the questionnaire. Good explanation of the respondents was done before filling the questionnaire. Privacy and confidentiality were kept.

## 6. Result

### 6.1. Demographic Data

This part was presented frequency distribution of respondents with respect to their gender, their age and their class categories.

*Table 1. Frequency distribution of respondents with respect to their gender.*

Sex	Frequency	Percent
Valid	Male	112
	Female	72
	Total	184
		60.9%
		39.1%
		100.0%

Table 1. above, indicated demographic characteristics and gender division of the respondents together with 184 of total sample size of the study.

As shown in the above table, male respondents were 112 which was given the percentage of 60.9% to the total respondents that represented the bigger part of the sample group while female respondents were 72 which was given the percentage of 39.1% to the total respondents.

*Table 2. Frequency distribution with respect to their age.*

Age	Frequency	Percent
Valid	5-10	148
	above 15	36
	Total	184
		80.4%
		19.6%
		100.0%

Table 2. showed the age distribution of the respondents and total sample size of 184 as indicated in the above table. Based on the above result, most of the respondents had fallen in the age group of 5-10 years which was given the percentage of 80.4% to the total age group while 36 of the respondents were in the age group of above 15 years which was given the percentage of 19.6% to the total age group.

*Table 3. Frequency distribution with respect to their class categories.*

Class category	Frequency	Percent
Valid	class one	6
	class two	21
	class three	31
	class four	33
	class five	57
	class six	36
	Total	184
		3.3%
		11.4%
		16.8%
		17.9%
		31.0%
		19.6%
		100.0%

Table 3. showed the distribution of the respondents with the respect of their different class categories. As shown the above table, 57 of the respondents were class five students which were given the percentage of 31% to the total

respondents and 36 of the respondents were class six students which were given the percentage of 19.6% to the total respondents also 33 of the respondents were class four students which were given the percentage of 17.9% to the total respondents and 31 others of the respondents were class three students which were given the percentage of 16.8% to the total respondents while those 21 of the respondents were class two students which were given the percentage number as 11.4% to the total respondents whereas 6 of the respondents were class one students which were given the percentage of 3.3% of the total respondents.

## 6.2. Educational factors

**Table 4.** Have you ever had about hand washing practice?

Options	Frequency	Percent
Valid No	100	54%
YES	84	46%

Above table showed that the majority of the respondents 100 answered yes, while 84 of the respondents were answered no. The information in the above table showed that the awareness of the respondents were not enough.

**Table 5.** Do you know the importance of hand washing?

Options	Frequency	Percent
Valid Yes	9	4.9%
No	175	95.1%
Total	184	100.0%

The above given table showed that 175 of the respondents were answered "No" which was given the percentage of 95.1% to the total respondents while 9 out of the 184 respondents answered "Yes" which was also given the percentage of 54.9% to the total respondents.

Result of the analysis in the above table revealed that most of the respondents were not aware of the importance of hand washing.

**Table 6.** Are you being taught hygiene and sanitation lessons in this school?

Options	Frequency	Percent
Valid No	184	100.0%

Based on the information in table 6 showed that all 184 of the respondents answered "No" which was given the percentage of 100% to the total respondents. The result shown in the above table presented that health education lessons were not included among the school subjects

**Table 7.** Do you know that Hand-washing is the most affordable and effective means of stopping the spread of infection?

Options	Frequency	Percent
Valid Yes	22	12.0%
No	162	88.0%
Total	184	100.0%

Based on the result of the analysis in the above table, 162 of the respondents answered "No" which was given the percentage of 88.0% to the total respondents while 22 of the

respondents answered "Yes" which was given the percentage of 12.0% to the total respondents. As shown in table 7 above, majority of the respondents had no idea that hand washing is the most affordable and effective means of stopping the spread of infection.

**Table 8.** Do you know that good hand hygiene is an important control measure of diseases?

Options	Frequency	Percent
Valid Yes	11	6.0%
No	173	94.0%
Total	184	100.0%

The above given table presented that 173 of the respondents answered "No" which was given the percentage of 94.0% to the total respondents while 11 of the respondents answered "Yes" which was also given the percentage of 6.0% to the total respondents. The result in the table above further revealed that majority of the respondents were aware of the importance of good hand hygiene is control measure of diseases.

## 6.3. Socio-economic Factors

**Table 9.** Do you wash your hands while at school?

Options	Frequency	Percent
Valid Never	184	100.0%

The information in table 9 above showed that all the respondents answered "Never" which was given the percentage of 100% to the total respondents.

This result indicated that school children did not wash their hands while at school.

**Table 10.** Do you have enough water?

Options	Frequency	Percent
Valid Yes	184	100.0%

The above given table showed that all the respondents answered "Yes" which was given the percentage of 58.7% to the total respondents. The information in the above table revealed that there was no water scarcity among the respondents.

**Table 11.** How clean is your toilet?

Options	Frequency	Percent
Valid Clean	181	98.4%
fairly clean	3	1.6%
Total	184	100.0%

The above given table showed that each one of 181 respondents had "clean toilet" which was given the percentage of 37% to the total respondents while 3 of the respondents had "fairly clean toilet" which was given the percentage of 1.6% to the total respondents. The information in the above table showed that most of the respondents had no dirty toilets at home.

**Table 12.** Does improper handling of water can cause water contamination?

Options		Frequency	Percent
Valid	Yes	8	4.3%
	No	175	95.1%
	Neutral	1	.6%
	Total	184	100.0%

The information in the above table showed that 175 of the respondents answered “No” which was given the percentage of 95.1% to the total respondents while 8 of the respondents answered “Yes” which was given the percentage of 4.3% to the total respondents whereas 1 of the respondents remained “Neutral” which was given the percentage of .6% of the total respondents.

**Table 13.** Do you always wash your hands?

Options		Frequency	Percent
Valid	No	184	100.0%

The above given table showed that all 184 respondents answered “No” which was given the percentage of 100% to the total respondents. The result in the above table indicated that respondents used to wash their hands occasionally.

#### 6.4. Cultural Factors

**Table 14.** Do you wash hands after visiting the toilet?

Options		Frequency	Percent
Valid	Sometimes	170	92.4%
	Always	10	5.4%
	Never	4	2.2%
	Total	184	100.0%

Based on the result in the above table, majority of the respondents (170) answered “sometimes” which was given the percentage of 92.4% to the total respondents while 10 of the respondents answered “always” which was given the percentage of 5.4% to the total respondents whereas 4 others of the respondents answered “Never” which was given the percentage of 2.2% to the total respondents. The result in table 14 showed that majority of the respondents washed their hands after visiting the toilet due to cultural practices.

**Table 15.** How often do you wash hands when eating food?

Options		Frequency	Percent
Valid	sometimes	1	.5%
	Always	183	99.5%
	Total	184	100.0%

**Table 16.** Can the lack of sanitation facility make water unsafe to drink?

Options		Frequency	Percent
Valid	Yes	19	10.3%
	No	165	89.7%
	Total	184	100.0%

The above table showed that 183 of the respondents answered “always” which was given the percentage of 99.5% to the total respondents while 1 of the respondents answered “sometimes” which was given the percentage of .5% to the total respondents. The information in table 15 above revealed

that almost all of the respondents always washed their hands at the time of eating.

The above given table showed that 165 of the respondents answered “No” which was given the percentage of 89.7% to the total respondents while 19 of the respondents answered “Yes” which was given the percentage of 10.3% of the total respondents.

**Table 17.** Do you often use soap for washing hands?

Options		Frequency	Percent
Valid	Yes	2	1.1%
	No	182	98.9%
	Total	184	100.0%

The information in table 17 showed that 182 of the respondents answered “No” which was given the percentage of 98.9% to the total respondents while 2 of the respondents answered “Yes” which was given the percentage 1.1% to the total respondents. The result in the table above revealed that most of the respondents did not use soap for washing hands.

**Table 18.** When do you often wash your hands with soap?

Options		Frequency	Percent
Valid	after eating food	184	100.0%

The above given table showed that all of the respondents answered “after eating” which was given the percentage of 100% of the total respondents.

Result of the analysis in the table above revealed that all the respondents used to wash their hands with soap after eating food.

## 7. Discussion

Hand washing practice depends on the knowledge acquired concerning the practice; most schools have lessons on hygiene issues and the leading to a height rate of awareness among children. Nevertheless, possession of knowledge does not necessarily guarantee the performance of the corresponding behavior, for example in Nigeria, although school children had good knowledge on hygiene, they still could not able to put the knowledge into practice due to inadequate school sanitation facilities [15]. in Tanzania, some initiatives have been done thought the introduction of hand washing campaign programs in schools. Moreover, awareness ways of preventing parasitic infections among primary school, children in Tanzania was four Hight in the intervention schools compared to those in control schools that the effects of hand washing education schools were not sustained over time. Therefore, there is a need to reinforce factors that sustain hand washing practice [16].

the above given table showed that 175 of the respondents were answered “No” which was given the percentage of 95.1% to the total respondents while 9 out of the 184 respondents answered “Yes” which was also given the percentage of 5.9% to the total respondents.

Result of the analysis in the above table revealed that most of the respondents were not aware of the importance of hand

washing.

Based on the information in Table 6. showed that all 184 of the respondents answered “No” which was given the percentage of 100% to the total respondents. The result shown in the above table presented that health education lessons were not included among the school subjects.

## 8. Conclusions

This study, analyzed the most influential factors for hand washing practice namely, educational factors, socio-economic factors and cultural factors.

The overall objective of this study was to determine factors influencing hand washing practice among the primary school children attended at Altadamun School in Wadajir District, Mogadishu-Somalia.

Findings from the conclusion of the study objectives revealed poor awareness of the respondents; lack of hand washing facilities in Schools and ineffective cultural practices towards hand washing among the respondents.

## 9. Recommendations

Researchers recommended the following recommendations:

1. Ministry of education should include water, sanitation and hygiene (WASH) in School curriculum to be taught in Schools
2. Hand washing facilities should be set up in all Public and private Schools
3. Community culture towards hand washing should be changed through education such as washing hands with soap before eating food not after eating food
4. To educate people not to wash hands with sharing water in a small dish
5. Researchers are also admitted that the study does not cover and elucidate every issue and aspect of factors influencing hand washing; hence suggests further field research on this topic from a broader perspective which investigates the relationship between poor hand washing and spread of infection.

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