# **Evaluation of Hand Washing Knowledge, Practices, and Skills among Students of Thar Desert Schools**

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## **ABSTRACT**

Introduction – Proper Hand-washing is an integral component in attaining the Swachh Bharat Abhiyan (SBA) goals. Rural areas are presumed to have low-grade hygienic practices, particularly 'Hand-washing'. This study is aimed to assess the knowledge, attitude and practices regarding 'Hand-washing' among school going children of the Village Jhadol, District - Udaipur, Rajasthan.

Methodology – A questionnaire based study was conducted in the month of Feb. 2020 in the rural areas of Jhadol, Rajasthan. We selected 380 school going children from different schools between the age group 12-17 years were selected. A pre-tested questionnaire for data collection .The data entry and statistical analysis was done using MS-Excel (Office 2013 version) and Epi-Info Version 7.1.

**Results** – Total 380 participants with mean age of 14.2 years were surveyed in this study out of which 41.05% of them were females. Knowledge, Attitude and Practices towards Hand-washing awareness, and techniques were 66.94%, opinions 53.51% and 56.65% respectively. Despite having the knowledge about the correct hand-washing technique, 43.33% students were still using soil as the cleansing agent. 36.57% correspondingly. 23.68% and Awareness levels among girls were found to be more than boys.

**Conclusion** – Hand-washing is an important aspect of addressing many public health issues effectively. To attain the goals of SBA, this study suggests the need for more health education and promotion activities in the schools of rural areas of India.

**Key Words** – Hand-washing, Swachh Bharat Abhiyan.

# INTRODUCTION

Infectious disease are still the most common and deadly disease for developing Countries. More than 3.5 million children under five year die from diarrhoea and respiratory infections. (1) Many studies indicated that hand washing reduce the spread of infectious disease and hand washing is very effective in preventing communicable diseases. Hand washing is particularly important for school children, as they are more vulnerable to diseases due to unwashed hands and also due to unhealthy behaviour. Keeping hands clean through improved hand hygiene is one of the most important steps we can take to avoid getting sick and spreading infection to others. Many 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 (2)

Swachh Bharat Abhiyan or Swachh Bharat Mission <sup>(3)</sup> is a nation-wide campaign in India for the period 2014 to 2019 that aims to clean up the streets, roads and infrastructure of India's cities, towns, and rural area.

#### **METHODOLOGY**

This study was conducted at rural area of Jhadol, Udaipur, Rajasthan, India in the month of Feb. 2020. There were a total 380 student were participate in this study. Students are randomly selected from various schools.

A pre-designed questionnaire was distributed to the children to know the knowledge, practice and skill about hand washing and hand hygiene.

There were 5 questions to evaluate the hand washing knowledge, 10question to assess hand washing practice and 5question to estimate hand washing skills. The participate has to answer agree or disagree in knowledge and skill questions and in practice question participate has to answer always and never

The data entry and statistical analysis was done using MS-Excel (Office 2013 version) and Epi-Info Version 7.1.Percentage and mean are calculate as for gain practice skill and knowledge score

#### **RESULT**

Total 380 students participated in the study, the mean age was 14.2 and the age range was 12 to 17. Fourty one point zero five percent was female in this study.

Thirty six point eight four students was not know the effect of water temperature in hand washing and fifty six point five seven percent students was not washing their hand after coming from playing.

There are another thing that only twenty three point six eight percentage students wash their hand before touching seek people but fifty six point five seven percentage students washed hand after touching seek people that show they have knowledge but less.

Forty four percent students was using soil as a another agent to clean hands that show the failure of various health promotion programme at ground level.

Hand-washing practise score was sixty seven percent

Techniques were fifty four percent and knowledge was fifty seven percent.

Table 1.Answers to the questions about participants "hand washing knowledge"

| S.N | QUESTIONS  | AGREE       | DISAGREE    |
|-----|--|-------------|-------------|
|     |  | n (%)       | n (%)       |
| 1   | Hands need to be washed at least 15 seconds        | 320(84.21%) | 60(15.78%)  |
| 2   | Do you always use tissue or towel to dry your hand | 225(59.21%) | 155(40.78%) |
| 3   | Cold water should be use to wash hands             | 170(44.73%) | 210(55.26%) |
| 4   | Medium hot water should be use for wash hand       | 240(63.15%) | 140(36.84%) |
| 5   | Need drying after washing hand                     | 120(31.57%) | 260(68.42%) |

Table 2; Answers to the questions about participate "hand washing practise"

| s.n | questions  | Always n(%) | Never n(%)   |
|-----|--|-------------|--------------|
| 1   | I wash my hand before meal                       | 300(78.94%) | 80 (21.05%)  |
| 2   | I wash my hand after meal                        | 320(84.21%) | 60(15.78%)   |
| 3   | I wash my hand after come from toilet            | 360(94.73%) | 20 (5.2%)    |
| 4   | I wash my hand after come from school            | 360(94.73%) | 20 (5.2%)    |
| 5   | I wash my hand after come from playing           | 165(43.41%) | 215 (56.57%) |
| 6   | I wash my hand after come hospital               | 240(63.15%) | 140 (36.84%) |
| 7   | I wash my hand before touching seek people       | 90(23.68%)  | 290 (76.31%) |
| 8   | I wash my hand after touching seek people        | 215(56.57%) | 215 (56.57%) |
| 9   | I wash my hand after using public transportation | 355(93.42%) | 25(6.5%)     |
| 10  | I wash my hand after touching animal             | 139(36.57%) | 139 (36.57%) |

Table 3: Answers to the questions about participate "hand washing skill"

| Table 5. This wers to the questions about participate mand washing skin |   |             |          |  |  |
|---|---|-------------|----------|--|--|
| S.N   | Questions                                     | Agree n (%) | Disagree |  |  |
| 1   | Hand need to be wash by soup or any liquid    | 310(81.57%) | 70(%)    |  |  |
| 2   | Soil is not another agent for hand wash       | 215(56.57%) | 165(%)   |  |  |
| 3   | Before washing hand are you fold your sleeves | 142(37.36%) | 238(%)   |  |  |
| 4   | Cleaning hand by rubbing wrist                | 210(55.26%) | 170(%)   |  |  |
| 5   | Only water is not enough to clean hands       | 140(36.84%) | 240(%)   |  |  |

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Following bar chart Mean percent score of students for practice knowledge and skills;



## **CONCLUSIONS**

Proper Hand-washing is an integral component in attaining the Swachh Bharat Abhiyan (SBA) goals. To attain the goals of SBA, this study suggests the need for more health education and promotion activities in the schools of rural areas of India. Still

using soil as a cleaning agent shows us failure of various health promotion programmes at ground level.

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