

Knowledge on Importance of Hand Washing in an Urban Community in Imphal West, Manipur

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ABSTRACT

Background: Hand washing is one of the most effective and inexpensive ways to prevent the spread of many illnesses like common cold, diarrhoea, meningitis, flu, hepatitis A etc. Although people around the world clean their hands with water, very few use soap to wash their hands.

Objectives: To assess the knowledge on hand washing among adults in an urban community and to determine the association between hand washing awareness with selected variables of interest like age, sex etc.

Method: A cross-sectional study was conducted among individuals aged 18 years and above in 2015 using structured interview schedule in an urban community of Imphal West district. Data were presented in percentages and Chi-square test was employed to assess association.

Results: Out of total 917, majority (91.6%) responded that hand washing can prevent diseases and 53.9% and 17.8% knew diarrhoea/dysentery and ARI respectively as the preventable diseases. Majority of the participants responded that one should wash their hands before eating (93.7%) and after going to toilet (72.2%). Majority (96.2%) reported that handwashing should always be done with water and soap/detergent. Awareness on the importance of hand washing was significantly associated with male gender, younger age group, higher education level, being employed and being unmarried.

Conclusion: Though majority of the study participants were aware of the importance of hand washing, knowledge regarding handwashing after critical moments were low. Further study is warranted to explore their practice of hand washing and health education

focusing on hand hygiene can be taken up in the community.

Keywords: Knowledge, hand washing, community, cross-sectional study

INTRODUCTION

Public health importance of hand washing was known since the 19th century. Many researchers also highlighted how hand washing could bring down the incidence of diarrhoea, ARI & other diseases.^[1] Every year, more than 3.5 million children do not live to celebrate their fifth birthday because of diarrhoea and pneumonia. Hand washing with soap (HWWS) could significantly reduce the burden of each.^[2] HWWS after contact with faeces and before contact with food can reduce rates of diarrhoea among the under-fives by 42–47% and rates of respiratory infections by 16%.^[3]

Hand washing with soap before eating and after using the toilet, as an ingrained habit, could save more lives than any single vaccine or medical intervention, cutting deaths from diarrhoea by almost half and deaths from acute respiratory infections by one-quarter. Although people wash their hands with water, very few wash their hands with soap at critical times, especially after using the toilet, before eating, before handling food or cooking and before feeding others. Around the world, the observed rates of hand washing with soap at critical moments range from 0% to 34%. More hand washing with soap would make a

significant contribution to meeting the Millennium Development Goal of reducing deaths among children under the age of five by two-thirds by 2015. [2]

Handwashing is recognized as a simple, efficient and cost-effective essential tool for achieving good health. Widespread adoption of simple hand washing practices in the community could save million lives annually. When practiced regularly and on a wide scale, handwashing with soap can be thought of as a “do-it-yourself vaccine” because it is easy, effective and affordable. [2] Yet, despite its lifesaving potential, hand washing with soap is seldom practiced in the community.

The present study has been taken up to assess the knowledge on hand washing among individuals aged 18 years and above in an urban community and to assess the association between awareness of importance of hand washing with selected variables of interest.

MATERIALS AND METHODS

This was a cross-sectional study conducted among individuals aged 18 years and above in an urban field practice area of a medical college in Manipur. The study was conducted during May to July 2015. With 401 households, there were a total of 1013 adults aged 18 years and above in this community. All the adults aged 18 years and older in the community were included in the study. Refusal to participate and inability to contact at two successive visits were excluded from the study. The participants were interviewed at their homes after taking verbal consent and privacy was maintained. Pre-tested structured questionnaire, which consisted of the first part enquiring into the respondent's socio-demographic characteristics and the second part consisting of questions on knowledge regarding hand washing, was used. Data analysis was done using SPSS IBM version 16. The data collected were checked for consistency and completeness. Percentages were used to describe the data. The association between two categorical

variables was examined by Chi-square test. P-value of <0.05 was considered statistically significant. Ethical approval was obtained from the Institutional Ethics Committee, RIMS, Imphal. Informed verbal consent was taken from the participants before conducting the interview. Confidentiality was maintained by using identification codes and any personally identifiable information were removed.

RESULT

Nine hundred and seventeen (917) respondents responded giving a response rate was 90.5%. The study participants were within the age range of 18-88 years with a mean age of 39 (\pm 13.9) years.

Out of the total respondents, 55.9% were females, 74.3% were married and 51.4% were graduate and above. One-third (31.0%) of the respondents were housewives. A quarter of the participants were employees of government or private sector. Majority of the respondents belonged to age group of 25-59 years. A little more than half (53.2%) of the respondents were from joint family (Table 1).

Characteristics	n (%)
Sex	
Male	407(44.4)
Female	510(55.6)
Age group (year)	
18-24	140 (15.3)
25-59	698 (76.1)
\geq 60	79 (8.6)
Type of family	
Nuclear	429 (46.8)
Joint	488 (53.2)
Occupation	
Housewife	284 (31.0)
Government / private employee	241 (26.3)
Business	227 (24.8)
Student	137 (14.8)
Pensioner	28 (3.1)
Marital status	
Married	681 (74.3)
Unmarried	225 (24.5)
Divorce/separated	6 (0.7)
Widow/widower	5 (0.5)
Educational status	
Illiterate	50 (5.5)
<10 standard	83 (9.1)
10-12 standard	312 (34.0)
Graduate and above	472 (51.4)

Eight hundred and forty (91.6%) respondents were aware that hand washing can prevent diseases. When further enquired for the source of information regarding the importance of hand washing, majority of the respondents got the information from different media like television, radio, newspaper and internet and also through family members or elders. Sixty-one participants reported having received information regarding importance of handwashing through health education awareness program (Table 2).

Table 2: Sources of information regarding the importance of hand washing

Responses	*n (%)
Media (TV, radio, newspaper, internet)	358 (39.0)
Family members/elders	356 (38.8)
Friends	234 (25.5)
Teachers, school, college	213 (23.2)
Doctors/other health personnel	185 (20.2)
Health education awareness program	61 (6.6)

*(Multiple answers allowed)

Half of the respondents knew that handwashing can prevent diarrhoea/dysentery while 17.8% and 10.6% identified ARI and skin diseases respectively as diseases which could be prevented (Table 3).

Table 3. Diseases that can be prevented by hand washing

Responses	*n (%)
Diarrhoea / dysentery	677 (53.9)
ARI	222 (17.8)
Skin diseases	133 (10.6)
Hepatitis A / jaundice	35 (2.8)
Eye infection	22 (1.7)
Don't know	165 (13.2)

*(Multiple answers allowed)

Table 4: Responses on "When should one wash their hands?"

Responses	n (%)
Before eating	859 (93.7)
After eating	764 (83.3)
After going to toilet	662 (72.2)
After handling animals/insects	506 (55.1)
Before preparing food	219 (23.9)
Before feeding a child	49 (5.3)
After coughing/sneezing	23 (2.5)
After contact with child's stool	21 (2.3)
Before handling water for storage	17 (1.9)
After handling money	3 (0.3)

Responses to "when should one wash their hands" showed that majority answered that handwashing should be done before eating (93.7%), after eating (83.3%) and after going to toilet (72.2%). Only 5.3%

of the respondents knew that handwashing should be done before feeding a child. About one-fourth responded that handwashing should be done before preparing food (Table 4).

Majority (92.2%) responded that handwashing should be done with water and soap/detergent. Few also reported that handwashing should be done with water only (14.5%), antiseptics (11.9%), and water and ash/mud (2.7%).

Awareness of hand washing was significantly associated with male gender, younger age group, higher educational level, being unmarried and being employed (Table 5).

Table 5. Awareness of importance of hand washing by socio-demographic characteristic

Characteristic	Awareness		p-value
	Yes n(%)	No n(%)	
Sex			
Male	389(95.6)	18(4.4)	0.0001
Female	451(88.4)	59(11.6)	
Age group(years)			
18-24	134(95.7)	6(4.3)	0.0001
25-59	648(92.8)	50(7.2)	
≥ 60	58(73.4)	21(26.6)	
Occupation			
Unemployed	371(88.3)	49(11.7)	0.001
Employed	468(94.3)	28(5.7)	
Marital status			
Ever married	624(90.2)	68(9.8)	0.009
Unmarried	216(96.0)	9(4.0)	
Type of family			
Nuclear	390(90.9)	39(9.1)	0.50
Joint	450(92.2)	38(7.8)	
Education			
Illiterate	29(58.0)	21(42.0)	0.0001
<10	60(72.3)	23(27.7)	
10-12	285(91.3)	27(8.7)	
Graduate and above	466(98.7)	6(1.3)	

DISCUSSION

In the present study, 91.6% of the respondents were aware of the importance of hand washing in preventing diseases and this was found to be higher compared to a study conducted by Jeong JS et al [4] (77.6%) in Korea and Datta SS [5] (83.4%) et al in south India.

In our study, 53.9% responded that hand washing can prevent diarrhea and dysentery while Datta SS found a much lower response (38.8%). However, study conducted by SK Ray et al [6] in the slum and non-slum urban and rural areas of West Bengal reported higher reporting rates of

82.35% in non-slum area and 89% in rural area. Such low proportion of the respondents believing in prevention of diarrhoea/dysentery by handwashing in our study reflects lack of proper knowledge regarding hand hygiene.

Majority of the respondent in our study were aware that one should wash one's hand before eating (93.7%), after eating (83.3%) and after going to toilet (72.2%) but we have not looked into their actual practice. In a study conducted by Jeong JS et al. [4] it was found that 94% of the survey respondents claimed to mostly or always wash their hands after using public restrooms but only 63.4% of the observed participants did wash their hands after using public restrooms. Similar finding was observed in a study done by American society for Microbiology [7] where 92% reported that they always wash their hands after using public restroom but only 77% were observed doing so. Further study to observe the actual practice of hand washing is needed.

Only few of the respondents in our study were aware that one should wash their hands in situations such as before feeding a child (5.3%), after coughing or sneezing (2.5%), after contact with child's stool (1.9%) and after handling money (0.3%). People all over the world wash their hands with water. The belief that washing with water alone to remove visible dirt is sufficient to make hands clean is commonplace in most countries. But washing hands with water alone is significantly less effective than washing hands with soap in terms of removing germs. [2] In our study, majority of the respondents were aware that one should wash one's hand with water and soap or detergent (96.2%) and while washing with water only was 11.9%.

CONCLUSION

Majority of the study population were aware of the importance of hand

washing. However, knowledge regarding handwashing after critical moments were found to be low. Awareness and practice are essential to develop healthy behavior. Thus, further study is warranted to explore their practice on hand washing and there is a need to take up health education program focusing on hand hygiene in the community.

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