

A Descriptive Study to Assess the Knowledge and Practice Regarding Hand Washing Among Ward Attendants in Selected Hospital at Jaipur with a View to Conduct a Demonstration on Hand Washing

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ABSTRACT

Hand hygiene is the primary measure proven to be effective in precluding HCAI and the spread of antimicrobial resistance. However, it has been shown that HCWs encounter difficulties in complying with hand hygiene suggestions at different situations. Thus, looking into the intensity of the problem and investigator experience, it's important to find out the knowledge and practice of ward attendants regarding hand hygiene to prevent hospital acquired infections. A quantitative research approach with descriptive research design was used to conduct this study. 60 ward attendants were assessed by using convenient sampling technique. The result showed that mean % of knowledge was 35 with SD 3.61 and mean percentage of practice was 49.58 with SD2.21. Study revealed that 53.33 samples had poor knowledge and 60 had poor practice for hand hygiene. There was weak positive correlation ('r' value 0.10) between knowledge and practice score of ward attendants.

Keywords: Knowledge, Practice, Hand Hygiene, Ward attendants, Demonstration.

INTRODUCTION

Nosocomial infections due to poor hand hygiene are a major cause of adding morbidity, mortality, and health care costs among rehabilitated cases worldwide. The high frequency of these infections, as high as 19%, in developing countries poses a challenge to health care providers. Health care workers' hands are the most usual type of vehicle for transmission of health care associated infections. Pathogenic microorganisms can stay for 2- 60 minutes on health care workers' hands. Hand washing is the simplest and most effective measure to help infections. Still, about 50 of health care associated infections do due to hand of health care providers. World Health Organization introduced "My five moments for hand washing" to minimize problems related to hand washing. These five moments that call for the use of hand washing include the moment before touching a case, before performing aseptic and clean procedures, after being at threat of exposure to body fluids, after touching a case, and after touching patient surroundings.¹

NEED OF THE STUDY

World Health Organization an estimate 1.4 million patients acquire Health Care

Associated Infection at any time and improper hand hygiene accounts for about 40 % of this incidence. The prevalence of HAI varies from one region of the world to another. It affects 5-15% of hospitalized patients in developed country with higher figures quoted for developing countries. Diarrhoea diseases and respiratory tract infections are among the leading contributors to the global burden of disease and poor water supply related to hand hygiene represents 7% of the risk factors (WHO Guidelines on Hand Hygiene, 2009.)²

A study was carried out to assess the knowledge, attitude and practice regarding hand washing among Health Care Workers at the Federal Teaching Hospital, Ido Ekiti, Nigeria which is a tertiary health center in Southwester Nigeria. The study further aimed to identify factors hampering the practice of hand washing among the participants. The finding of this study would help the administration as well as the infection control unit of the hospital to institutionalized appropriate measures to increase the compliance rate of hand hygiene thereby with the ultimate end of reducing the prevalence of Health Care Associated Infection.³

Investigators also have personal experiences of witnessing poor hand hygiene practice among ward attendants while performing job or doing supervision in hospital. This motivates them to conduct a study related to hand hygiene.

STATEMENT OF THE PROBLEM

A descriptive study to assess the knowledge and practice regarding hand washing among ward attendants in selected hospital at Jaipur with a view to conduct a demonstration on hand washing.

OBJECTIVES OF THE STUDY

1. To assess the level of knowledge regarding hand washing among ward attendants in selected hospital at Jaipur.

2. To assess the practice regarding hand washing among ward attendants in selected hospital at Jaipur.
3. To find out the relationship between knowledge and practice regarding hand washing among ward attendants in selected hospital at Jaipur.
4. To find out the association between knowledge regarding hand washing among ward attendants in selected hospital at Jaipur and their selected socio-demographic variables.
5. To find out the association between practice regarding hand washing among ward attendants in selected hospital at Jaipur and their selected socio-demographic variables.
6. To conduct a demonstration on hand washing.

HYPOTHESES

H₁- There will be a significant relationship between knowledge and practice regarding hand washing among ward attendants in selected hospital at Jaipur at 0.05 level of significance.

H₀₁- There will be no significant relationship between knowledge and practice regarding hand washing among ward attendants in selected hospital at Jaipur at 0.05 level of significance.

H₂- There will be a significant association between knowledge regarding hand washing among ward attendants in selected hospital at Jaipur and their selected socio demographic variables at 0.05 level of significance.

H₀₂- There will be no significant association between knowledge regarding hand washing among ward attendants in selected hospital at Jaipur and their selected socio demographic variables at 0.05 level of significance.

H₃. There will be a significant association between practice regarding hand washing among ward attendants in selected hospital at Jaipur and their selected socio demographic variables at 0.05 level of significance.

H₀₃- There will be no significant association between practice regarding hand washing among ward attendants in selected hospital at Jaipur and their selected socio demographic variables at 0.05 level of significance.

MATERIALS & METHODS

Researcher selected quantitative research approach and descriptive research design to conduct this study. The study was conducted at SMS Hospital Jaipur. Sample of this study consist of 60 ward attendants selected by using non-probability convenient sampling technique. Data was collected after getting formal permission from higher authority of the concerned department of hospital. Tool was developed to collect data which consist Structured questionnaire to assess knowledge and

checklist to assess the practice. Tool was validated from experts and informed consent was taken from participants before collecting the data. Pilot study was conducted first then main data was collected from 18-09-2022 to 01-10-2022 by following formal procedure and ethical consideration.

STATISTICAL ANALYSIS

Data was analyzed by using descriptive statistics to assess the level of knowledge and practice and inferential statistics was used to find out the relationship between variables. (Chi square) for association of knowledge, practice with demographic variable and correlation coefficient ® for relationship between knowledge and practice.

RESULT

Table No. 1: Distribution of socio- demographical variables of ward attendants (N=60)

| S.N. | Demographical Variables | Category | Frequency (f) | Percentage (%) |
|------|---|---------------------|---------------|----------------|
| 1. | Gender | Male | 40 | 67 |
| | | Female | 20 | 33 |
| 2. | Educational Qualification | No Formal Education | 27 | 45 |
| | | Primary Education | 21 | 35 |
| | | Secondary Education | 10 | 17 |
| | | Graduation & above | 2 | 3 |
| 3. | Working Experience | 0-5 Year | 16 | 27 |
| | | 6-10 Year | 21 | 35 |
| | | 11-15 Year | 12 | 20 |
| | | More Than 15 Years | 11 | 18 |
| 4. | Working Area | General Ward | 20 | 33.33 |
| | | ICU | 18 | 30 |
| | | Emergency Ward | 11 | 18.33 |
| | | OPD | 11 | 18.33 |
| 5. | Have You Ever Attended Seminar and Workshop on Hand Washing | Yes | 11 | 18 |
| | | No | 49 | 82 |

Table No. 2: Distribution of level of knowledge of ward attendants (N=60)

| S.N. | Knowledge score | Score | Frequency | percentage (%) |
|------|-----------------|-------|-----------|----------------|
| 1. | Good | 17-25 | 2 | 3.33 |
| 2. | Average | 9-16 | 26 | 43.33 |
| 3. | Poor | 0-8 | 32 | 53.33 |

Table No. 3: Description of aspects of knowledge and overall knowledge (N=60)

| S. No. | Max. score | Mean | Mean% | Median | Mode | SD |
|--------|------------|------|-------|--------|------|------|
| 1. | 25 | 8.75 | 35 | 8 | 8 | 3.61 |

Table No 4: Distribution of practice regarding hand washing of ward attendants (N=60)

| S. N. | Practice | Score | Frequency {f} | Percentage (%) |
|-------|------------|-------|---------------|----------------|
| 1 | Adequate | 0-6 | 24 | 40 |
| 2 | Inadequate | 7-12 | 36 | 60 |

Table No 5: Description of aspects of practice and overall practice

| S.N. | Max. score | Mean | Mean% | Median | Mode | SD |
|------|------------|------|-------|--------|------|------|
| 1. | 12 | 5.95 | 49.58 | 6 | 5 | 2.21 |

Table No 6: Relationship between knowledge and practice regarding hand washing among ward attendants. (N=60)

| Correlation value | Type of correlation |
|-------------------|---------------------------|
| 0.10 | Weak positive correlation |

Fig 1: Relationship between knowledge and practice of ward attendants

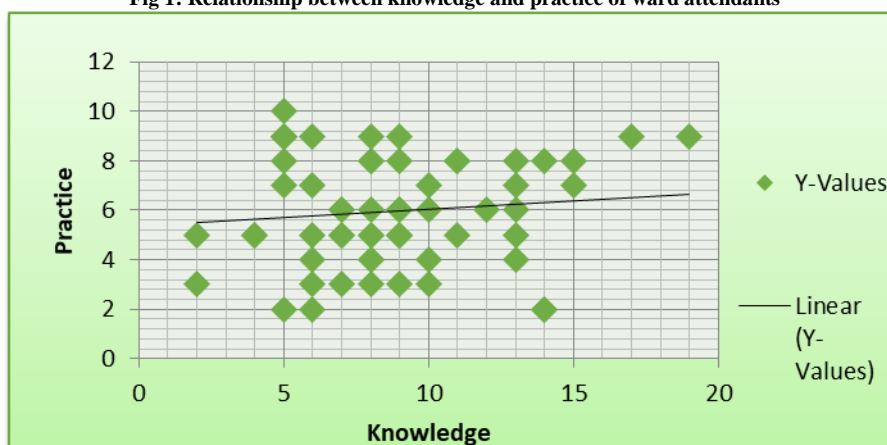


Table No 7: Association of knowledge regarding hand washing among ward attendants with their selected socio-demographic variables. (N=60)

| S. N. | variables | Categories | Knowledge score | | | χ^2 | df | Tab. Values | L.O.S @0.05 |
|-------|---|---------------------|-----------------|---------|------|----------|----|-------------|-------------|
| | | | Good | Average | Poor | | | | |
| 1 | Gender | Male | 2 | 18 | 20 | 1.33 | 2 | 5.99 | NS |
| | | Female | 0 | 8 | 12 | | | | |
| 2 | Education Qualification | No formal education | 0 | 12 | 15 | 23.92 | 6 | 12.59 | S |
| | | Primary education | 0 | 9 | 12 | | | | |
| | | Secondary education | 1 | 4 | 5 | | | | |
| | | Graduation & above | 1 | 1 | 0 | | | | |
| 3 | Working experience | 0- 5 years | 0 | 6 | 10 | 13.94 | 6 | 12.59 | S |
| | | 6-10 years | 0 | 6 | 15 | | | | |
| | | 11-15 years | 1 | 5 | 6 | | | | |
| | | >15 years | 1 | 9 | 1 | | | | |
| 4 | Working area | General ward | 1 | 8 | 11 | 2.2 | 6 | 12.59 | NS |
| | | ICU | 1 | 8 | 9 | | | | |
| | | Emergency ward | 0 | 4 | 7 | | | | |
| | | OPD | 0 | 6 | 5 | | | | |
| 5 | Have you ever attended seminar & workshop on hand washing | Yes | 2 | 4 | 5 | 9.09 | 2 | 5.59 | S |
| | | No | 0 | 22 | 27 | | | | |

Table No 8: Association of practice regarding hand washing among ward attendants with their selected socio-demographic variables. (N=60)

| S. No. | variables | Categories | Practice score | | chi square | df | Tab. Values | L.O.S @0.05 |
|--------|---|---------------------|----------------|------------|------------|----|-------------|-------------|
| | | | Adequate | Inadequate | | | | |
| 1 | Gender | Male | 14 | 26 | 1.24 | 1 | 3.84 | NS |
| | | Female | 10 | 10 | | | | |
| 2 | Education Qualification | No formal education | 10 | 17 | 0.47 | 3 | 7.81 | NS |
| | | Primary education | 9 | 12 | | | | |
| | | Secondary education | 4 | 6 | | | | |
| | | Graduation & above | 1 | 2 | | | | |
| 3 | Working experience | 0- 5 years | 4 | 12 | 13.78 | 3 | 7.81 | S |
| | | 6-10 years | 4 | 17 | | | | |
| | | 11-15 years | 8 | 4 | | | | |
| | | > 15 years | 8 | 3 | | | | |
| 4 | Working area | General ward | 7 | 13 | 0.51 | 3 | 7.81 | NS |
| | | ICU | 8 | 10 | | | | |
| | | Emergency ward | 4 | 7 | | | | |
| | | OPD | 5 | 6 | | | | |
| 5 | Have you ever attended seminar and workshop on hand washing | Yes | 8 | 3 | 6 | 1 | 3.84 | S |
| | | No | 16 | 33 | | | | |

DISCUSSION

The result of the study showed that the majority of respondents 32 (53.33%) had poor knowledge, 26 samples (43.33%) had average knowledge and only 2 (3.33%) had good knowledge regarding hand hygiene. The mean score of participants was 8.75, mean percentage was 35%, median was 8, mode was 8 and standard deviation was 3.61. Similarly result showed that majority of respondents 36 (60 %) had inadequate practice and 24 (40%) had adequate practice regarding hand hygiene. The mean practice score of participants was 5.95, mean percentage was 49.58%, median was 6, mode was 5 and standard deviation was 2.21.

Correlation between knowledge and practice calculated by Karl Pearson's correlation coefficient formula calculated 'r' value was (0.10). It shows that the tabulated value of coefficient of correlation is more than calculated value hence there was a weak positive correlation between knowledge and practice among ward attendants.

The computed Chi-square value indicated that there was significant association of knowledge of ward attendants with demographic variables i.e. education qualification, working experience and have you ever attended seminar and workshop on hand washing.

The computed Chi-square value indicated that there was significant association of practice with demographic variables i.e. working experience and have you ever attended seminar and workshop on hand washing.

CONCLUSION

On the whole carrying out the present study was an enriching experience to the investigator, the study result showed that the majority of ward attendants had poor knowledge and inadequate practice regarding hand hygiene and weak positive correlation between knowledge and practice of ward attendants. A demonstration procedure explaining hand hygiene

technique was conducted to the ward attendants which was useful for them.

Declaration by Authors

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Conflict of Interest: The authors declare no conflict of interest.

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