

Assessment of Knowledge, Attitude and Practice of Hand Washing among Health Workers in Jugel Hospital Harar, East Ethiopia 2019

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Abstract

Background: Hand washing is the rubbing together of all surfaces and cleaning of the hands using a soap or chemical and water. Effective hand hygiene involves the removal of visible soiling and the reduction of microbial colonization of the skin. Nosocomial infections due to poor hand hygiene are a major cause of increasing morbidity, mortality, and health care costs among hospitalized patients worldwide. Therefore Proper open hand washing practice is simple and an important method to prevent it However, about 50% of health care associated infections occur due to hand of health care providers Even though few institution based studies were conducted in Ethiopia regarding hand washing knowledge, altitude and practice among health care workers there is no sufficient information in our study area Therefore this study will try to fill the information gaps and used as a reference data for other researcher

Objectives: To assess Knowledge, Attitude and hand washing practice of health workers in Jugel Hospital Harar, East Ethiopia in 2019.

Method: Institutional based cross-sectional study was employed on 125 health profession. Structured questionnaires was used for data collection, participant were sleeted by simple random sampling techniques. Training was given for A data collectors and supervisor as well as Pretest and double data entry was made to assure quality of data. Collected data were entered to SPSS version 22.0 for analysis. And result were presented in tables, bar graphs, pie charts.

Result: In these study the overall prevalence of good knowledge were 61% . Among the study the participant 58.4% had positive attitude while 74.4% participant had good practice regarding hand hygiene

Conclusion and Recommendation: Over all KAP of health profession toward hand hygiene is moderate, therefore provision of training, and enhancing hand washing tradition need to be stabilishe.

Keywords: Hand washing; Knowledge; Attitude; Practice; Harar town

Introduction

Background: Hand washing is the rubbing together of all surfaces and cleaning of the hands using a soap or chemical and water. It should be performed after arriving at work, before leaving work, between client contacts, after removing gloves, when hands are visibly soiled, before eating, after excretion of body wastes (urination and defecation), after contact with body fluids, before and after performing invasive procedures, and after handling contaminated equipment. [1]

World Health Organization (WHO) 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 patient, before performing aseptic and clean procedures, after being at risk of exposure to body fluids, after touching a patient, and after touching patient surroundings (2). Health care workers' hands are the most usual type of vehicle for transmission of health care associated infections for handling it universal Precautions" are designed to prevent health care staff being

exposed to blood and body fluids by applying the basic principle of infection control through hand washing [3,4].

Statement of the problem: Nosocomial infections due to poor hand hygiene are a major cause of increasing morbidity, mortality, and health care costs among hospitalized patients worldwide. The high prevalence of these infections, as high as 19%, in developing countries poses a challenge to health care providers [5]. 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 [3].

An estimated more than 1.4 million people worldwide are suffering from infections acquired in hospitals. Hhospital Aacquired linfection as the fifth leading cause of death in acute care hospitals [2] According to the Centers of Disease Control and Prevention (CDC) in US nearly 1.7 million HAIs occur yearly, leading to approximately 99,000 deaths every year However, about 50% of health care associated infections occur due to hand of health care providers (HCPs) [6]. In Sub-Saharan countries the problems associated with patient safety is often hampered by inadequate data. However, prevalence studies on hospital-wide healthcare-associated infection from some African

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countries reported high infection rates (Mali 18.9%, Tanzania 14.8%, Algeria 9.8%) with patients undergoing surgery being the most frequently affected) due to poor hand hygiene practice. Increased workloads, under-staffing, limited time, lack of role models among colleagues or seniors, lack of organizational pledge to good hand hygiene practice, disagreement with guidelines and protocols and lack of motivation have all contributed to poor compliance with hand hygiene and infection control measures. Lack of hand hygiene products and facilities, such as running water, sinks, antiseptic or non-antiseptic soaps, alcohol hand-rubs and hand paper towels, can also play a major role in poor hand hygiene practice [8]. Despite limited studies were conducted on issue of EC in the country there is lack of well documented study and sufficient information in my study area. Therefore this study will try to fill the information gaps and used to identify knowledge, attitude and hand washing practice of health workers and problems exists and drawn possible solution. It will also serve as correction madding tools for stake holders including Harari region health bureau. Finally it will be serving as a base line data for other researchers.

Objectives

General objective

To assess knowledge, attitude and practice of hand washing among health workers in Jugel hospital Harar, Town Eastern Ethiopia 2019

Specific objective

To assess the knowledge of health workers on hand washing in Jugel hospital Harar, Town East Ethiopia

To identify the attitude of health workers on hand washing in Jugel hospital Harar, Town east Ethiopia

To identify the practice of health workers on hand washing in Jugel hospital Harar, Town east Ethiopia.

Methods

Study area and study period

This study was conducted in Harari regional State Harar Ethiopia which was located in the eastern part 526km away from Addis Ababa, the capital city of Ethiopia. In the region 20 health posts, 8 health centers and 18 Private for profit clinics, 25 pharmaceutical retails out let, 3 pharmaceutical whole sellers and 2 modern laboratories are available and 7 Hospitals were available and the study was conducted in Jegula hospital which was established in 1902. It has 105 inpatient beds. The general staff Composition of Hospital is 239, of them 162 are BSc nurses, 56 Diploma nurses, 30 health officers, 3 Laboratory technician, 4 lab technology, 10 midwife Diploma, 17 Bsc Midwife, 13 Pharmacy, 19 medical doctor. This study was conducted from April 11 to April 30, 2019.

Study Design: Institutional based cross sectional study design was used.

Source population: All health care providers who are working in Jugel Hospital.

Study Population: Randomly selected health care provider who are working in Jugel Hospital.

Sample size: The sample size was determined by using a single population proportional formula $n = (Z_{\alpha/2})^2 p(1-P)$ sample size was calculated for the

d2

three variables using of good knowledge 84.2 from study conducted in Bahir Dar City (9) prevalence of patient's attitude which is 74 % from study conducted in Srilanka (10) prevalence of Hand washing practice, which is

43% from study conducted in Afar (11) by comparing the three sample size the highest was taken which becomes 377. Using sampling size estimation method and finite population correction the total sample size will be obtained as

$$N_i = n _$$

Where: $1 + (n/N_0)$

N_i is the corrected sample size

n is initial sample size that is 377

N_0 is total number of

$$n_f = n / (1 + n/N)$$

$$n = \frac{377}{(1 + 377/162)} = 113.5 = 114$$

$$(1 + 377/162)$$

By adding 10% non-response rate, the final sample size was = 126

Sampling Techniques and Procedure: Simple random sampling technique was used to select the study participants. The questionnaires was distributed to different wards (emergency department, surgical department, laboratories, outpatient departments, operation room, pediatrics, injection and dressing rooms, EPI unit, F.Punit, and pharmacy). It was filled by health professionals at their work places and collected by data collectors. Study participants was proportionately allocate to number of different profession and the first participant was selected randomly. Stratified random sampling technique was used to proportionally allocate.

Where; n is sample size of the j th stratum

N is population size of the j th stratum

$n = n_1 + n_2 + \dots + n_k$ is the total sample size

$N = N_1 + N_2 + \dots + N_k$ is the total population size

Data collection tools and method: A Data collection tool was developed after critical review of literature. It was prepared in the as a self administer to assess participants socio demographic condition, knowledge, attitude and practice towards hand washing. A total of four data collectors and two supervisors were participated on this study.

Variables of the study:

Dependent Variable

Knowledge, attitude & Practice on Hand washing

Independent Variable

Age, Sex, Place of residence, marital status, Religion, Ethnicity, Work experience, Profession

Data Quality Control: To assure the quality of data pretested was done on 5% of total sample size in HFSUH. Training was given for data collector's supervisor and data entry clerks prior to the study. Data completeness, consistency and legibility were checked by supervisor on daily based double data entry was performed by separate data clerk.

Data processing, analysis and presentation: After data collection each questionnaire was checked for completeness, consistency then coded. Epi-Data version 3.1 and SPSS version 21 were used for data entry and analysis. Frequency is runned to analyze descriptive statistics. Knowledge, attitude and practice part are analyzed based on total question mean value were used to classify as good or Poor knowledge, altitude and practice on hand hygiene. Finally the study finding was presented by figure, tables and graphs and it will interpreted accordingly.

Ethical Consideration: Ethical clearance letter was obtained from Harar health Science College Institution Research Ethics Review Committee. Permission was obtained from study institution. All the participants were

informed the purpose, advantages and disadvantages, and their right to be involved or not also with draw from the study at any time. Informed consent were obtained from all participants. Confidentiality was maintained by avoiding names and other personal identification.

Operational definitions

Knowledgeable: is defined as having adequate understanding about hand washing and earning score of mean and above the mean on the knowledge questions [11]

Good Knowledge: participants who responded mean and above the mean on knowledge questions [11]

Poor knowledge: participants who responded below the mean on knowledge questions. [11]

Good practice: study participants who responded to the practice questions mean and above the mean in line with the recommended hand washing practice [11]

Poor practice: study participants who responded to the practice questions below the mean in line with the recommended hand washing practice [11]

Positive attitude: participants who responded mean and above the mean on attitude questions [11]

Negative attitude: Study participants who responded below the mean on attitude questions [11].

Knowledge related characteristics

In these study about 88 (70.4%) of health profession were having training on infection prevention/hand washing and only 20(16%) of participants describe that there is no need of hand washing for those who perform their activity with caution. Majority 74 (59.2%) agreed that no need of hand washing if gloves are properly worn (Table-2).

Level of knowledge toward Hand washing practice

According to these study, generally about 76(61%) of health care workers have good knowledge towards handwashing practice (figure-3).

Attitude related characteristics

More than half of participant 70(56%) agreed with hand hygiene adherence. About 64(51.2%) miss out hand hygiene simply because of forgetting and majority 93(74.4%) of participants agreed that hand hygiene practices is easy in the current hospital setup (Table-3)

Table 3-Attitude related characteristics of study participants in Jegula Hospital, Harar town Eastern Ethiopia, 2019.

Practice related characteristics

Majority 94(75.2%) of participants wash hand before and after contact with patient, of them about

31(33%) of them wash their hand at usual frequency. Majority 103(82.4%) of respondent wash hand

during performing aseptic procedures whereas about 90(72%) of participants wash hands during clean

procedures. About 71(60%) of respondents follow hand hygiene cleaning steps

Generally about 93(74.6%) of respondent has good practice concerning hand hygiene whereas

32(25.4%) had poor hand washing practice (Table-4).

Discussion

In this study, out of 125 health professionals, 76 (61%) were knowledgeable and 49 (39%) were not knowledgeable this finding in line with study done in Afar, region Dubti Hospital in which 66% were good knowledge and 34% were poor knowledge about hand hygiene [11] while the finding was lower than study done in Shenen Gibe Hospital in which about 83 % of them had good knowledge and 17% had poor knowledge (12). The difference might be due difference in sample size study area and socio – demographic characteristics.

In this study about 58.4% of respondents had good attitude toward hand hygiene practice. These finding is lower than study done in sirilanka 74%, West Hraghe Chiro 71.9% and woliata sodo 93% (10, 13, and 14).The possible reasons for may be difference in study area as well as lack of standard operating procedures and strict rules to implement hand washing.

In these study about 93(74.6%) of respondent has good practice concerning hand hygiene whereas 32(25.4%) had poor hand washing practice. These finding is higher than study conducted in Nigeria in which about 42.2%, Dubti Hospital, 43% Afar Region, 43% Jimma Hospital. (15,11,16) The difference could be due to difference in complying hand washing policy, availability of hand washing facilities around health institution as well as difference in sample size.

Conclusion and Recommendation

Conclusion

In this study about 61% of respondents had good knowledge and 58.4% of respondents had positive attitude and 74.6% of respondent has good practice concerning hand washing in health facility.

Based on the result finding majority of the respondent had attendee workshop on IPPS/ hand hygiene and had good knowledge on hand hygiene but there are not aligned and obey the practice as it was proved by majority of respondent agreed that no need for hand washing for those who perform their activity with caution, No need of hand washing if gloves are properly worn and health care workers should no need of always wash their hands immediately after arriving facilities. Most of the study subjects were had good attitude and practice towards hand washing but not performing it all the time as it was mentioned on the standard just before and after contact with patient, after contact with body secretions, before performing any aseptic procedures, before performing any clean procedure.

Recommendation

In this study about 61% of respondents had good knowledge and 58.4% of respondents had positive attitude and 74.6% of respondent has good practice concerning hand washing in health facility. Even though what had observed is good, Jegula Hospital should give attention to improve the knowledge and practice of those Health Care Workers towards hand washing. Regular practice of hand washing requires supplies like soap, water, dry and clean towel, etc. depending on the type of procedure to be performed at all times. Therefore, the hospital and other concerned bodies should fulfill those necessary facilities to improve practice of hand washing. The hospital authorities are responsible for posting the general guidelines for the staff at each hand washing site. Close supportive supervision and positive encouragement should be better to be performed by hospital administrators to create adherence on hand washing practice as per standard. Finally further study is recommended with large sample size including other health institutions.

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