ejpmr, 2017,4(1), 140-144

SJIF Impact Factor 3.628

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article

ISSN 2394-3211

EJPMR

KNOWLEDGE, ATTITUDE AND PRACTICE OF HAND HYGIENE AMONG MEDICAL CARE PROVIDERS IN (BASHAIER) TEACHING HOSPITAL, KHARTOUM, SUDAN.

[1]*Dr. Mohamed Osman Elamin Bushara, [2]Prof Hatim Rahimtullah, [3]Liban Moahamed Abdulie Liban, [4]Mohamed Ismail Abdullah Mohamed and [5]Amal Abdelkarim Nour Adam

[1]Umm Al-Qura University, Faculty of Public Health and Informatics.
[2,3,4,5]University of Bahri, Faculty of Public & Environmental Health.

***Corresponding Author: Dr. Mohamed Osman Elamin Bushara**

Umm Al-Qura University, Faculty of Public Health and Informatics.

Article Received on 10/11/2016 **Article Revised on 01/12/2016** **Article Accepted on 21/12/2016**

ABSTRACT

Hand hygiene is a term that means a process for the removal of both dirt and germs from the hands. Hand washing is the single most important method of preventing the spread of infectious diseases, studies in developing countries show that lack of awareness and knowledge among medical care providers regarding the importance of hand washing and hand hygiene practices specially at work sites. The study aimed to assess the knowledge, attitude and practice of hand washing and hand hygiene among medical care providers in (Bashaier) teaching hospital, Khartoum, Sudan, a facility-based descriptive study to assess the knowledge, attitudes and practices of hand hygiene among medical care providers had been conducted. The study clarified that only 41% of the respondents always clean hands when dealing with patients, equipments and tools within the hospital, while 64% of causes of not practicing hand hygiene practices among respondents was being busy, showing that practice of hand hygiene during work is low. Also the study clarified that 75.63 of the respondents usually wear gloves before potential contact with body fluid and mucous membrane while 24.37% don't wear gloves in those cases. The study recommended that a multifaceted interventional behavioral hand hygiene program should be implemented for improving the compliance to hand hygiene guidelines among all medical care providers.

KEYWORDS: Hand hygiene, Medical care providers.

1. INTRODUCTION

Hand hygiene is a term that means a process for the removal of both dirt and germs from the hands. Hand washing is the single most important method of preventing the spread of infectious diseases. Alcohol-based hand rubs have been proven to increase hand hygiene in health care settings. Most health care settings now have alcohol hand rubs readily available for use by visitors and patients, as well as staff. Since bacteria and viruses can be picked up from surfaces such as handrails, doorknobs and elevator buttons and can even be acquired from shaking hands, it is a good idea to have them widely available in many public settings, including workplaces. Globally WHO mentions that through hand washing with soap and water remove over 90% of microbial flora percent on hands should be undertaken routinely after physical contact with every patient, the use of antimicrobial soap achieves a higher reduction of the microbial flora providing washing continues for several minutes. Studies in developing countries show that lack of awareness and knowledge among health care workers as regarding the importance of techniques, methods of hand hygiene.

It is estimated that health workers and medical care providers in Sudan have sufficient level of awareness regarding the importance of the hand hygiene practices. However, the lack of appropriate infrastructure such as sinks, running water, soaps and the high expense of the alcohol-based hand rub makes the best hand hygiene practices difficult to be achieved. In addition the high turn-over of health workers and medical care providers requires repeated training frequently. The first Sudanese hand hygiene campaign was launched in 2009 with training and awareness-raising as its key components.[1, 2, 3, 4]

1.2 Problem statement and Justification

The hands of medical staff frequently come into close contact with a patient and are obvious transmission route for infection, (WHO 2005).[5]

1.3 Objectives of the study

1.3.1 The General objective of this study is

- To assess the knowledge, attitude and practice of hand hygiene among health staff in Bashair teaching hospital, Khartoum, Sudan.

1.3.2 The Specific objectives are to

1. To identify the knowledge of health staff toward hand hygiene.
2. To evaluate awareness of health staff about the importance of hand hygiene.
3. To assess hand hygiene practice among health staff.
4. To determine the availability of hand washing facilities in hospital.
5. To recognize problems and obstacles concerning hand hygiene activities.
6. To determine the attitude of health staff regarding hand hygiene.

2. MATERIALS AND METHODS

2.1 Study design

The study was designed as a facility-based descriptive research that utilizing different dependable and undependable variables to assess the knowledge, attitudes and practices of hand hygiene toward health staffs in (Bashaier) teaching hospital.

2.2 Study area

2.2.1 Location

Bashair teaching hospital located in the southern part of Khartoum locality, Khartoum locality is one of the seven localities of Khartoum State situated in the center of Khartoum State.

2.2. 2 Study population

The medical care providers in (Bashair) teaching hospital was (342) persons.

2.4 Methods of data collection

2.4.1Primary visit for recognition of study area

The researchers will be make primary visit in al- Nasr administration unit (east area) in mayo and they will be assessing the situation of area.

2.4.2 Records and Reports

The Information collected from the municipality offices in al- Nasr area regarding the area of the hospital, also number of residents, number of schools, number of health centers and socioeconomic status of the area.

2.4.3 Structured questionnaires

A well designed, pretested reviewed structured questionnaire in the intended objectives had been distributed and filled.

2.4.4 OBSERVATION

Personal observation focused on hand hygiene facilities and compliance of hand hygiene during patients contact.

2.4.5 Sample size

Simple size determined according to the following formula.

$$n=N/1+N\ (e2)$$

Where

n = require sample size
N = total population
E = allowable error (0.05)…….(16)

This formula was used to calculate the sample size:
n=N/1+N (e) 2
n=342/1+342(0.05)
n=342/1.855
n=185

2.4.6 Methods of data analysis

The data has been analyzed through the statistical package for social sciences (SPSS) version 17.

3. RESULTS

Table 1: distribution the categories of bashair hospital staff 2016 n=185.

Subject	Frequency	Percentage
Specialist	12	6.49%
Nurse	44	23.78%
Medical officers	41	22.17%
X-ray technician	7	3.78%
Laboratory technician	27	14.59%
Sisters	17	9.19%
Registrars	8	4.32%
Health officer	29	15.68%
Total	185	100.00%

Medical officers constitute the biggest category of medical care providers with 22.2%.

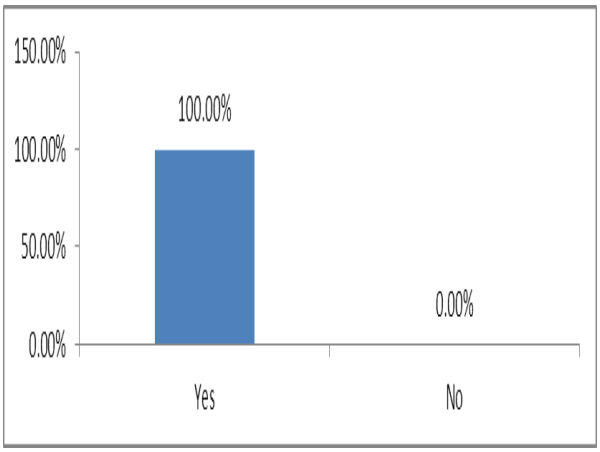

Figure 1 Distribution of perception of staff on the health importance's for washing and cleaning hands before and after every patient n=185.

All medical care providers agree on the importance of hand hygiene practices before and after dealing with every patient.

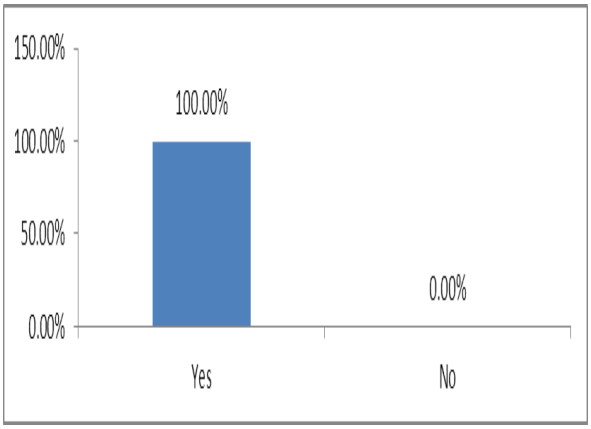

Figure 2 Distribution of perception of staff on the health importance's for washing and cleaning hands before and after every patient n=185.

All medical care providers agree on the importance of hand hygiene practices before and after dealing with every patient.

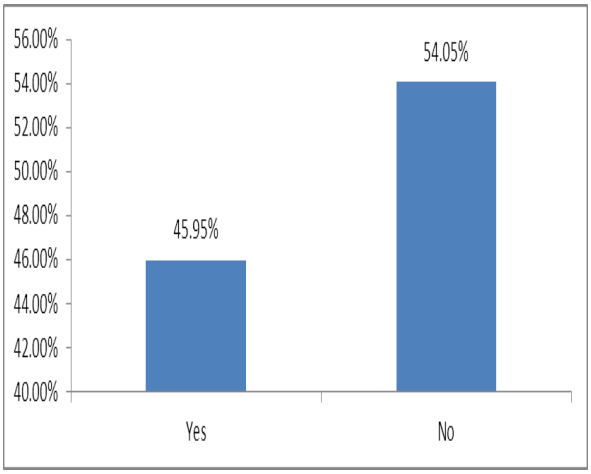

Figure 3: Perception of staff regarding if using gloves decreases the importance of wash and clean hands when dealing with patients and equipment n=185.

54% of staff sees that using gloves cannot decrease the importance of washing hands.

Table 2: Distribution the wash and clean hands while dealing with patient, tools, and equipment's n=185.

Subject	Frequency	Percentage
Always	76	41.08%
Most times	83	44.86%
Some times	20	10.81%
Rarely	6	3.25%
No	0	0.00%
Total	185	100.00%

Only 41% of the respondents always clean hands when dealing with patients, equipments and tools within the hospital.

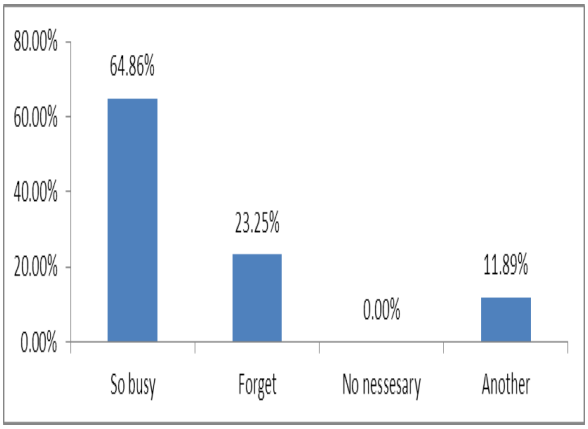

Figure 4: Distribution the causes that interrupt from wash and clean hands when dealing with patients and tools in the hospital (n=185).

64% of causes of not practicing hand hygiene practices among respondents is being busy.

Table 5 Distribution of using the same gloves for more than one patient (n=185).

Subject	Frequency	Percentage
Always	55	29.73%
Most times	9	4.86%
Some times	26	14.06%
Rarely	14	7.57%
No	81	43.78%
Total	185	100.00%

29% of the respondents use the same glove for more than one patient.

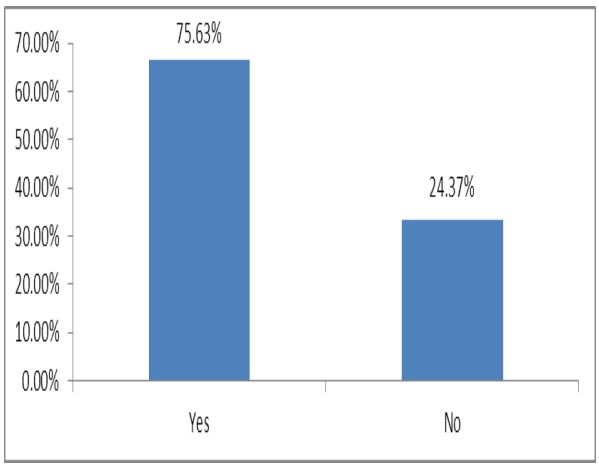

Figure 5: Distribution of respondents answers if there is there is an existences of problems related to activities of washing and clean hands in the hospital (n=185).

75% of the respondents mentioned that there are some problems and limitations facing the application of hand hygiene practices in the hospital.

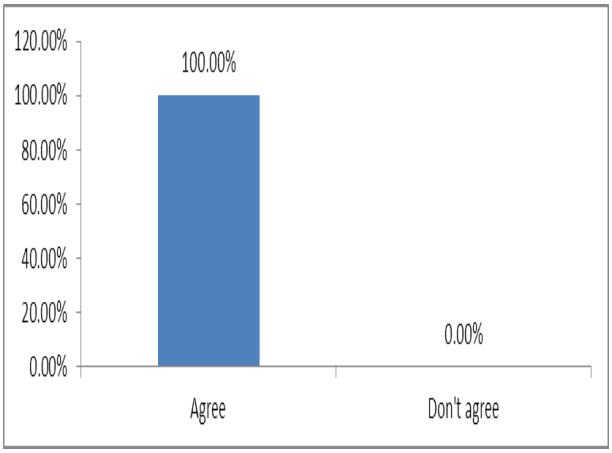

Figure 6 Distribution of respondents answers if they believe that washing and clean hand's may decrease the transmission of hospital infection (n=185).

All respondents believe that clean hands decrease hospital infection.

Table 6: Distribution the gloves wearing before touch the fluid and mucus of the patient (n=185).

Subject	Frequency	Percentage
Always	122	75.63%
Most times	29	12.32%
Some times	34	12.05%
Rarely	0	0.00%
No	0	0.00%
Total	185	100.00%

75% of respondents always wear gloves before touch the fluid and mucus of the patient.

Table 7: Distribution the washing hands in the state of touches one of the organs of the patient (n=185).

Subject	Frequency	Percentage
Always	101	54.59%
Most times	28	15.14%
Some times	31	16.76%
Rarely	25	13.51%
No	0	0.00%
Total	185	100.00%

13.5% of respondents rarely wash hands if they touch touches one of the organs of the patient.

Table 8 Distribution the washing hands before any unsurgical procedures like inject blood vessels (n=185).

Subject	Frequency	Percentage
Always	115	62.16%
Most times	45	24.32%
Some times	23	12.43%
Rarely	2	1.09%
No	0	0.00%
Total	185	100.00%

62% of the respondents always wash hands before any unsurgical procedures like inject blood vessles.

4. DISCUSSION

The descriptive study was designed to assess the knowledge, attitudes and practices of hand hygiene practices among medical care providers in (Bashaier) teaching hospital, Khatoum, Sudan.

According to the study, medical officers constitute one of the biggest medical care providers with 22.2%, showing the inequality of the distribution of medical staff in the hospital, where the sisters percentage is less than them while they should be higher.

The practice of hand hygiene during work is very low, because the study shows that 59% of the respondents do not practice hand hygiene always when they are working. While another study in Ibnu Sina hospital, Sudan (2010) mentions that high demand for cleansing, which reflects high workload was associated with low compliance.[5] Opportunities for hand washing were much more frequent during busier times of the day and during care of critically ill patients. These results confirm reports by health care workers that perceived busyness substantially reduces hand washing.[6]

The study explains that 100% of the target populations agree that Hand hygiene lowers hospital acquired infection rate more than any other measure. While Another study in Ain Shams University hospitals in Cairo shows, As regards lowering of nosocomial infection rates 92% of the nurses believe that this method (Hand washing) can lower nosocomial infection rates more than any other method of infection control.[7]

The study clarify that there are many problems relating hand hygiene supplements in the hospital, 75% of the respondents mentioned that there are some problems and limitations facing the application of hand hygiene practices in the hospital.

It has been discovered that there are some medical care providers using same gloves for more than one patient which is very risky practice in transmitting infections between patients, 29% of the respondents use the same glove for more than one patient.

24.37% says they don't wear gloves, another study in Khartoum north teaching hospital (2014). Shows that 82.2%, of the sample size usually wear gloves before potential contact with body fluid and mucous membrane while 17.8% never wear gloves.[19] Table (6).

The study explains that 54.59% of target group always wash their hands when touching organs of the patient and 15.14% do the same most of the time, while 16.76% sometimes only, while 13.51% of the minority of the target group said they wash rarely only, the last two

groups are very risky groups in transmitting infections in hospitals. Table (7).

The study shows that 62.16% of the respondents wash hands before any non-surgical procedures like inject blood vessels and the 24.32% of the respondents wash most of times, while 12.43% of the target group do this in sometimes. Table (8), this is indication of the existence of the same above mentioned result.

5. CONCLUSION

The study was conducted among medical care providers (specialists, nurses, medical officers, x-rays technicians, laboratory technicians, sisters, general doctors and health officers) in (Bashaier) Teaching Hospital to assess the knowledge, attitude and practice of them towards hand hygiene (2016).

- ✓ There is no existence of continuous supplementary water supply system in the hospital.
- ✓ There is no (protocol) of hand hygiene instructions in the hospital.
- ✓ There is a shortage in the supplementation of hand hygiene consumbales.
- ✓ High percentage of those not practicing hand washing requalry while dealing with patients for many reasons.
- ✓ There is a high number of respondents who usually use the same gloves for more than one patient leading possibility of infections transmission between patients.

6. RECOMMENDATIONS

- Implementation of multifaceted interventional behavioral hand hygiene program is important for improving the compliance to hand hygiene guidelines.
- Implementation of hand washing training programs for undergraduate health staffs, to improve HW practice.
- Continuous monitoring on hand hygiene practices among medical care providers, beside increasing of hand washing supplements.
- Strengthening of health education approaches regarding the importance of best practice on hand hygiene.
- Ensuring safety practices of hand hygiene among medical care providers.
- Monitoring and evaluation of the compliance of medical care providers with recommended instructions for hand hygiene and proper use of gloves.
- The development of protocols, programs and administration activities regarding wash and hand hygiene facilities in all health sectors (specially hospitals).
- Encourage future researches on hand hygiene practices in health facilities.

7. REFRENCES

1. Salah I. Kheder, Idris Eltayeb, SaniaA I Shaddad, Evaluation of Hand Hygiene Adherence b y Health Care Workers in a Secondary Sudanese Hospital Setting., 2010.
2. Ahmed EE, 2011, Improving hand hygiene compliance among dental health workers in 3 dental clinics in Khartoum State [Masters Dissertation] Dublin: Royal College of Surgeons in Ireland.
3. Practical guidelines for infection control in health care facilities. WHO, Annex., 2004; 1: 76-80.
4. WHO guidelines on hand hygiene in health care., 2008.
5. AN Hassan, MA Hassan, AA Abdrahman, GH Elshallaly, MA Saleh, 2010, Assessment of existing practices in the operating theatre in the Khartoum North Teaching Hospitals, Sudan, South Afr J Epidemiol Infect., 2011; 26(2): 79-82.
6. Boyce, J. and Pittel, D. (2002). Guideline for hand hygiene in health care setting morbidity and mortality weekly report. 51(RR16): 1-44. Retrieved march 15th 2008, from the center for disease control and prevention website: http//www.cdc.gov/hand hygiene.
7. Khaled M. Abd Elaziz, Iman M. Bakr, Assessment of knowledge, attitude and practice of hand washing among health care workers in Ain Shams University hospitals in Cairo. The Egyptian Journal of Community Medicine, 2 April 2008; 26.