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Research Article

**ASSESSMENT OF KNOWLEDGE AND PRACTICES PATTERN  
OF HAND WASHING IN PAKISTANI HOSPITALS****Fazilat Bibi<sup>1</sup>, Yasira Siddique<sup>2</sup>, Tahira Shaheen<sup>3</sup>**<sup>1</sup>Charge Nurse, Aziz Bhatti Shaheed Teaching Hospital, Gujrat<sup>2</sup>Charge Nurse, Sir Ganga Ram Hospital, Lahore<sup>3</sup>Nursing instructor, Post Graduate College of Nursing Punjab, Lahore**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

**Introduction:** Hand hygiene of healthcare personnel is recognized as a crucial factor in limiting healthcare-associated infections. **Objectives:** The main objective of the study is to analyse the knowledge, attitude and practices pattern of hand washing in hospitals of Pakistan. **Material and methods:** This cross sectional study was conducted in Aziz Bhatti Shaheed Teaching Hospital, Gujrat during June 2019 to 2020. Hand hygiene product usage data were collected from locations where workers would have a high frequency of patient contact. All employed health care workers of all ages and gender, who were willing to participate in our study, were included. **Results:** The data was collected from 100 workers. The highest number of observation was seen in the Surgery n = 40 and ICU n = 34. With regards to overall compliance in the observance of hand hygiene 10 of the hospital staff were found to be compliant before touching the patient. In addition 35 washed their hands after removing gloves as opposed to 25 that did not and 40 personnel observed hand hygiene after contact with body fluids and 40 did not. **Conclusion:** It is concluded that observance of hand hygiene is still low in our local environment. Hand washing practices in our study show that healthcare workers pay attention to hand hygiene, when it appears, there is a direct observable threat to their wellbeing.

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**INTRODUCTION:**

Hand hygiene of healthcare personnel is recognized as a crucial factor in limiting healthcare-associated infections. The World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) recommend that healthcare workers wash their hands with soap and water when visible soil is present. When hands are not visibly soiled, hand hygiene with an alcohol-based handrub (ABHR) is recommended<sup>1</sup>. The use of ABHR is faster, more effective, and less damaging to the skin, and it is the hand hygiene modality most frequently used by healthcare workers in the United States.

Proper hand washing or use of antiseptic after each examination of a patient is an important measure in infection control in the hospitals. About 150 years ago, Dr. Semmelweis, demonstrated that hand washing prevents disease spread and reduces hospital-acquired infections by 50% and can thus save precious resources. According to a US study, viruses and bacteria spreading from hospitals infect about 2 million patients each year and kill about 90 000 patients<sup>2</sup>.

One study showed that health care workers wash their hands for an average of only 8.5 to 9.5 seconds whereas, a minimum of 10 seconds is recommended. In developed countries, health care associated infection is estimated in 10% of patients whereas, in developing countries it is estimated to occur in 25% of patients<sup>3</sup>. Improving hand hygiene practices and creating awareness along with change in attitude of health workers shall not only reduce hospital-acquired infections but also save resources. Pakistan, due to limited financial resources, shortage of beds and doctors (1592 persons per bed and one doctor for 1183 persons), cannot afford to exhaust its limited resources on hospital-acquired infections. In Pakistan, infection control practices are not followed at most public sector hospitals and there is a need to establish an infection control programme<sup>4</sup>.

**Objectives**

The main objective of the study is to analyse the knowledge, attitude and practices pattern of hand washing in hospitals of Pakistan.

**MATERIAL AND METHODS:**

This cross-sectional study was conducted in Aziz Bhatti Shaheed Teaching Hospital, Gujrat during June 2019 to 2020. Hand hygiene product usage data were collected from locations where workers would have a high frequency of patient contact. All employed health care workers of all ages and gender, who were willing to participate in our study, were included. For collecting data, the World Health Organization (WHO) "Hand Hygiene Knowledge Questionnaire"-revised 2009 edition was used. A semi-structured questionnaire was developed and used as an assessment tool to evaluate the knowledge of staff regarding hand hygiene. It was distributed and collected from staff of all the departments of hospital.

**Statistical analysis**

However, data were analyzed for comparing the variables between doctors and nurses and paramedical staff and chi-square test was applied to see any statistical significant difference.

**RESULTS:**

The data was collected from 100 workers. The highest number of observation was seen in the Surgery  $n = 40$  and ICU  $n = 34$ . With regards to overall compliance in the observance of hand hygiene 10 of the hospital staff were found to be compliant before touching the patient. In addition 35 washed their hands after removing gloves as opposed to 25 that did not and 40 personnel observed hand hygiene after contact with body fluids and 40 did not. As an overall finding, the percentage split between dispenses of product types was 84.3% for handrub compared to 15.7% for handwash.

**Table 01:** Assessment of knowledge and attitude towards hand washing

Knowledge statements	Job description				total	P value
	Resident	Technician	Nursing assistant	Nurse		
Do you commit to the proper rules of hand hygiene all the time?						
Yes	46	23	5	35	100	0.2 25
	97.9%	86.7%	100.0%	92.1 %	94.8 %	
Do you have sufficient information about hand hygiene?						
Yes	34	21	13	37	100	0.6 97
	97.9%	100.0%	93.3%	98%	97.4 %	
Do you sometimes have things that are most important for you to adhere to the rules of hand hygiene?						
Yes	8	6	1	10	25	0.1
	16.7%	40.0%	6.7%	26.3 %	21.6 %	
Do emergencies or other considerations make it hard for you to comply with the rules of hand hygiene?						
Yes	11	6	2	14	32	0.1
	20.8%	40.0%	13.3%	36.8 %	27.6 %	
Do you think wearing a medical glove reduces the importance of sticking to the rules of hand hygiene?						
Yes	6	5	1	12	24	0.01
	12.5%	33.3%	6.7%	31.6 %	20.7 %	
Do you feel resentful when others do not adhere to the rules of hand hygiene?						
Yes	44	12	16	37	100	0.3
	93.8%	86.7%	100.0%	97.4 %	94.8 %	
Do you hesitate to advise others to abide by the rules of hand hygiene?						
Yes	9	2	3	11	25	0.5
	18.8%	13.3%	20.0%	28.9 %	21.6 %	
Are newly qualified staff trained and trained to comply with the rules of hand hygiene?						
Yes	44	12	11	34	103	0.4
	85.4%	100.0%	86.7%	89.5 %	88.8 %	
Do you feel guilty about not following the rules of hand hygiene?						
Yes	48	12	14	38	115	0.1
	41.7%	12.2%	13.0%	33%	100%	
Is adherence to the rules of hand hygiene easy and normal for you?						
Yes	44	12	14	37	111	0.8
	95.8%	93.3%	93.3%	97.4 %	95.7 %	

**DISCUSSION:**

In a systematic review conducted by Erasmus *et al.*, on hand hygiene practices, it was discovered that in ICUs and general wards, the compliance rate was 40% among physicians<sup>5</sup>. This goes show that even in critical care units in hospitals compliance with hand hygiene is still a topical issue. In the present study, our observation was that several personnel did not perform hand hygiene before conducting an invasive procedure but simply went on to don their gloves<sup>6</sup>. This also buttresses the fact that for them hand hygiene was basically for their own protection and not that of the patient or the immediate environment<sup>7</sup>.

A variety of factors have been described as for why healthcare workers do not sanitize their hands before and after patient contact, and these include a high workload, insufficient time, forgetfulness huge workload, lack of running water, and non-availability of alcohol hand lotions. Hand hygiene has therefore been promoted as one of the tools that will help to mitigate this rise in antimicrobial resistance<sup>8</sup>. This behavioural pattern is also seen in our study with low levels of compliance with the WHO prescribed five moments of hand hygiene. A worrisome trend is the high noncompliance rates of hand hygiene after touching the patient as the hands of healthcare workers could then become a reservoir for the transmission of pathogens among patients<sup>9-10</sup>. The several microorganisms causing healthcare-associated infections are regularly mutating and as such their antimicrobial resistance rates are higher in the hospital compared to the community. Such pathogens may enter into the local community via three means: Healthcare workers, discharged patients, or the relatives of such patients who visit the hospital<sup>11</sup>.

**CONCLUSION:**

It is concluded that observance of hand hygiene is still low in our local environment. Hand washing practices in our study show that healthcare workers pay attention to hand hygiene, when it appears, there is a direct observable threat to their wellbeing.

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