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Research Article

**HAND HYGIENE BEHAVIOURS IN HEALTH CARE SETUPS**<sup>1</sup> Dr. Iqra Naeem, <sup>2</sup> Dr. Hafiza Numrah Fatima, <sup>3</sup> Dr. Adina Ayesha<sup>1</sup>Ex-House Surgeon Nishtar Institute of Dentistry, Multan<sup>2</sup>Ex-House Officer Bahawal Victoria Hospital Bahawalpur<sup>3</sup>Ex-House Officer Bahawal Victoria Hospital Bahawalpur**Abstract:**

Poor hand hygiene compliance by health care professionals is the cause of almost 45% of the hospital acquired infections that may result in prolongation of disease duration and hospital stay, lifelong disabilities, economical burden and physical, social and psychological trauma for the patient. This study is designed to determine the knowledge and behavior of healthcare workers towards hand hygiene. It is cross-sectional study, based on observations and questionnaire in the Nishtar hospital Multan, preformed questionnaires were designed to collect the information. 156 patients were enrolled in the study, of them were 98 male health care providers including Doctors, Nurses and paramedics. And 58 were females. The questionnaires were filled by the patients and their interviews were taken face to face after taking informed consent.

**Results**

60% of the healthcare providers were compliant to the hand hygiene and according to 78% of professional's belief, poor hand hygiene is the most important cause of cross infections. 86% of professionals were following the WHO guidelines of hand hygiene i.e use of water and soap and others used alcohol rubs. Mostly water and soap is preferred, this may be due to limited alcohol swab availability in local setups. The percentage of hand hygiene compliance in paramedics is 38%. It was high in operation theater and in consultant OPD. i.e. 79% and 71% respectively.

**Conclusion:** Poor behavior towards hand hygiene and false sense of security is one of the major contributor towards Nosocomial infections. A multidisciplinary approach is needed to improve the compliance of health professionals.

**Key words:** Nosocomial Infections, Psychological Trauma, Hand Hygiene, Diseases

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**INTRODUCTION:**

Hand hygiene is one of the most important thing to be taken care by health care professionals. Respiratory infections, git infections, surgical site infections, infections of the oral cavity are the important diseases caused by poor hand hygiene compliance. In 2005, WHO provided guide lines along with steps for maintaining hand hygiene. A seminar was conducted in Ethiopia on hand washing and maintaining hand hygiene, Questionnaires were filled by the attending persons before and after the seminar and there was huge difference of results of questionnaires filled after the seminar was over. The studies done on this topic are usually based on determination to which extent hand hygiene in maintained.

The cross infection is major problem in underdeveloped as well as developing countries and health providing setups are also responsible due to lack of knowledge, lack of compliance or OMO syndrome i.e. believing that they are sterile and super clean. The emphasis is not on spreading the knowledge that the frequency of hand washing must be increased but also the quality must be maintained as per guidelines from the WHO. Despite having knowledge about the hand washing and its benefits the compliance is not up to the mark. Different frequent educational seminars must be conducted along with the use of monitoring methods, Like soap consumption, sanitizer usage and infection control. Nosocomial infection rates can be controlled by

educating and making the health providing staff comply with the proper hand hygiene.

**METHODS AND SETTINGS**

it is a cross-sectional study done at Nishtar hospital Multan from July 2016-June-2017. The sampling frame of our study consisted of all the health care providers in the hospital and from then required sample was taken by simple random Sampling technique. Questionnaires were designed as per guidelines of WHO and CDC. It covered hand washing awareness material, cross infection, hand washing recommended steps and attitude towards hygiene. Informed consent was taken from all subjects along with ethical clearance from the department. Qualitative and quantitative variable were taken and recorded. stratification of quantitative variables was done to control effect modifiers and Chi square was applied. The data analysis was done by using SPSS version 2.1.

**RESULTS:**

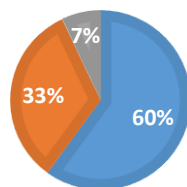
Out of 156 health care staff in our study 35% worked in medical department. 25% in paedes and neonatology unit, 20% in surgical operating theater and 20% in dentistry. it was noted in study that the use of spirit swabs before sampling was done by 61%. 72% of staff nurses used alcohol swabs in Neonatology unit. Doctors and paramedics in operation theater had high percentage of keeping proper protocol of sanitization.

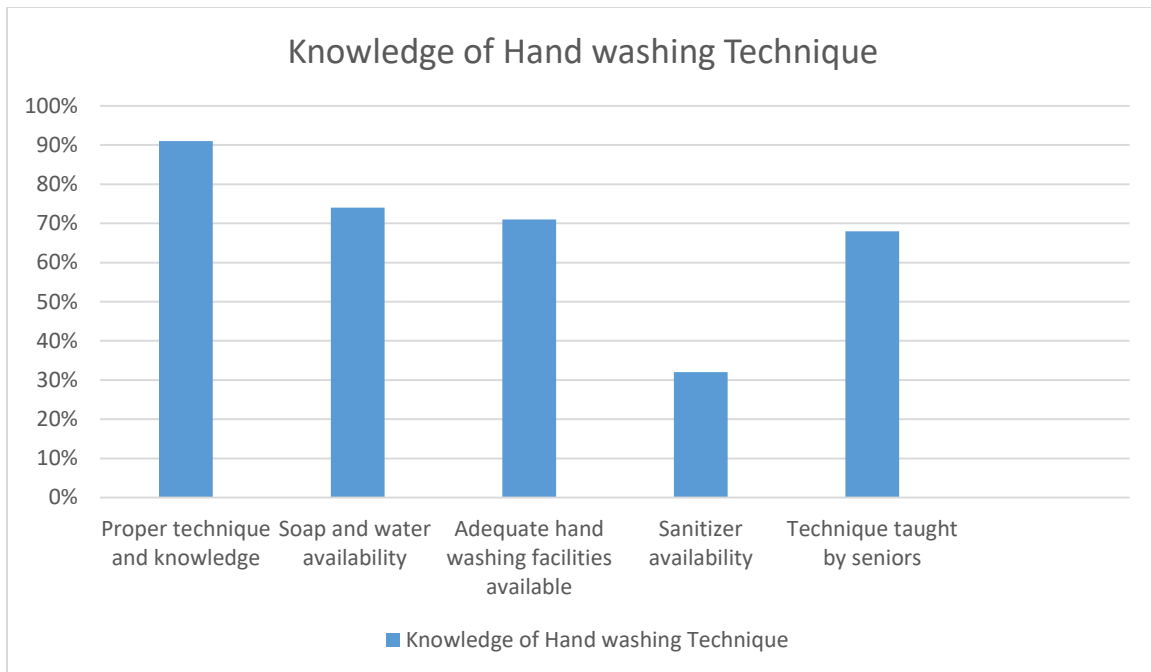
**Table: Hand hygiene practices among professionals.**

Washing hands prevent cross infections	96%
Paramedics washing hands before giving injections	39%
Consultants washing hands before checking patients	71%
Post graduate residents washing hands before checking patients	62%

**HAND WASHING MATERIAL USED**

■ Soap and water    ■ Alchohal swab or sterilium    ■ Plane water





### DISCUSSION:

In our study, it is assessed that 78% of all health care providers have awareness about the hand washing and benefits of keeping good hand hygiene while 60% are compliant. out of them 86% used water and soap and remaining used alcohol rubs. The results of our study is comparable to a study done in Pune India which shows majority of their health care providers use water and soap rather alcohol swabs.

Another thing that may affect the change in result of other studies done on this topic is availability of alcohol swabs. As in our setup, there is one Alcohol swab for 5 beds of patients (on average). Another study done in Mayo Hospital Lahore shows that the 76% of nurses use proper sanitization techniques before giving injections and maintaining IV lines in pediatric ICU. A study done by Anderson AE emphasizes on a multidisciplinary approach to address the aspects of proper knowledge, cultural and psychological barrier. On the other hand, incomplete understanding can be assessed as 80% think it is not necessary to use towel to turn off hand operated faucet. The factor for non-availability of required materials that must be probed into in order to improve the compliance.

### CONCLUSION:

In depth appraisal of the important risk factor for the nosocomial infections to improve hand hygiene and patient's safety, educational interventions at community level as well as at institutional level must be conducted to improve awareness on this important

issue and consequently improve compliance.

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