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Original Article

Hand washing practice: A General Perception

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Abstract

Background: This study was conducted to estimate hand-washing practices in Karachi City, Pakistan. This time, we asked 100 men and women in their 20s to 50s (50 men and 50 women) about their thoughts on hand washing and analyzed their attitudes.

Objective: Although washing is an integral part of Islamic religious education and Karachi is considered the utmost progressive, cultured, and educated city.

Methodology: Currently serves 100 members to advance the environmental health and protection professional to provide a healthful environment for all.

Results: The results of the survey fell short of expectations, showing that pollution only 30% said they were aware that rubbed hands caused diarrhea in other habits. Only 40% said that coughing and sneezing helped spread the disease in their community. In addition, just 40% said they wash their hands regularly, about 50% know to use antibacterial soap, and 40% wash their hands with plain water without soap. However, most respondents, like 80%, claim many commercials are the best, which is why they are often confused with antibacterial soap choices. Also, the majority of respondents (60%) used towels to dry their hands, and 70% of the population shared areas to receive towels or other areas.

Conclusion: 70% follow good habits of washing hands after using the restroom. 80% also acknowledged the undeniable fact that curricula must be introduced into schools at the grassroots level.

Keywords

Hand sanitizer, soap, microorganism, Health workers, hand washing.



Introduction

The literature is clear that hands can play a role in the spread of diseases. Though, acceptance of hand washing is relatively low. There are several reasons for these high patient numbers, inadequate knowledge of proper decontamination methods, and the risk of non-compliance leading to less available time. Hand sanitation, especially in healthcare situations, is highly recommended by the CDC and recognized as the only most important method of preventing the transmission of different microorganisms and infectious agents. The infection spread through infected hands of healthcare workers is a common example in most healthcare settings^{1,2}. The best technique to lessen the number of bacteria on your hands is to wash them with soap and water. However, a 60% alcohol-based disinfectant may also be useful if not available³, although disinfectants do not eliminate all types of bacteria.

Numerous studies around the world have shown hand contamination and the consequent transmission of various types of microbial pathogens. In one study, 17% of the staff at a healthcare facility had hands contaminated with *Klebsiella* spp⁴. It was also shown that regular hand washing considerably reduced the incidence of patients with *Klebsiella* spp⁴. The United Nations General Assembly designated 2008 as the International Year of hygiene⁵. To reinforce the United Nation's call for better hygiene practices, the Global Public-Private corporation for Hand washing stated 15 October 2008 as the first Global Handwashing Day intending to promote a global culture of handwashing with soap⁶ Gwaltney et al. It was described that he was infected with 71% of the rhinovirus within just 10 seconds of hand contact⁷. As part of a major global effort to recover hand cleanliness in health care, the WHO 2009 launched a global operation named "SAVE LIVES: Clean Your Hands". Fascinatingly a command for healthcare workers to practice hand hygiene was made as far back as 1847 by Ignas Semmelweis in

Vienna⁶. Despite the understanding of Semmelweis, unfortunate hand-washing compliance duties continue to exist in the general population⁷ and in a healthcare setting^{8,9}. A study in the City of Iowa, USA, reported an epidemic of *Pseudomonas aeruginosa* infection in intensive care units at the hands of health care personnel. Ruth et al. Significant contamination from the hands of South African grocery stores has been documented, of which 98% were highly contaminated with *Staphylococcus aureus*)¹⁰.

Therefore, the basis for this study is to evaluate the overall perspective of hand washing performance in the common population of Karachi. Helps assess the urgency of the need for a large-scale campaign.

Methodology

This survey study was conducted in six major densely populated zones in Karachi Pakistan to approximate the population. The survey consisted of the 20 most relevant and direct questions to measure the hand washing practice of Karachi people by randomly selecting them in different parts of Karachi for 4 months from July to October, constructed questionnaire form will be filled with between the time duration of July –October This questionnaire is based on yes and no answers.

Results

This group includes 30% illiterate, 50% college graduates, 30% secondary educated, and 20% tertiary educated. A study conducted in Geneva, Switzerland, found that there was a 48% correlation between hand washing at a medical center and the Ok¹¹. Jeong et al. conducted a nationwide survey in South Korea and found that 63.4% of contributors washed their hands after using community toilets¹². Our survey found that 40% of her residents were concerned about constantly washing their hands with antibacterial or regular detergents.

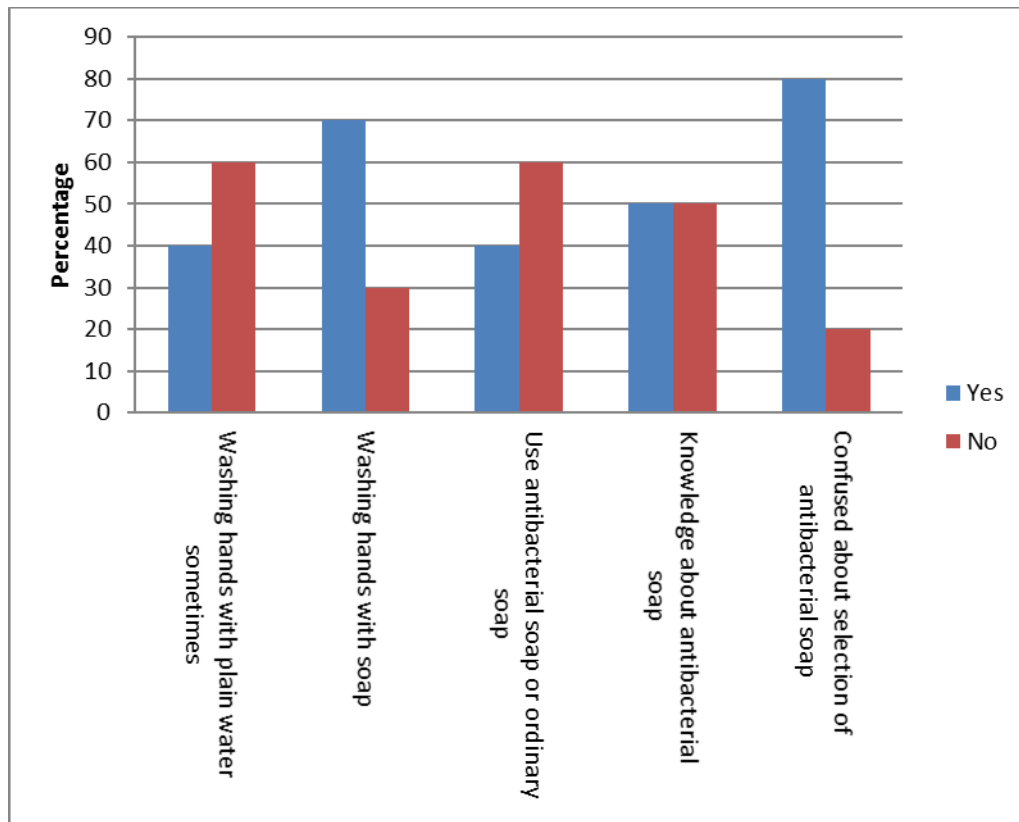


Figure 1: Show answers of participants to different questions in the survey.

Discussion

The current study on hand washing practices is based on four monthly surveys conducted in different parts of Karachi from July to October 2022. General information was collected from 100 population groups aged 20 to 50 years. The entire population was associated with various occupations. They found that 80% of the population still considers washing to be part of their religious practice. Confused by the choice of antiseptic soap, they planned to hold an appropriate handwashing workshop at the academy.

70% of residents agreed to wash their hands with soap, especially after using the restroom but used a towel or headscarf. When asked about drying her hands with a towel, one of the respondents agrees that 60% choose to dry their hands with a hand towel. However, they completely knew that infections from dirty fingernails were on the rise. Half of the general population was accustomed to

using antibacterial cleansers and always had to clean before eating. wash your hands A study conducted in Karachi, found that just 8.9% of health workers and staff in a large public sector hospital were washing their hands, but the facility had only 16.8% of them in its wards. Additionally, only 68.8% of healthcare workers were concerned about the benefits of hand sanitizing. Additionally, we discovered that just 48.7% of doctors agreed that patients should wash their hands when facilities were available¹³.

However, relevant data have not yet been reported and represent knowledge of different population groups. Although they have information that unclean hands and additional actions such as coughing and sneezing can easily spread a variety of bacterial and viral infections, 30% of people believe that gastrointestinal illness can occur in a variety of ways. Despite having the right knowledge and training, 20% of people wash their hands in less than a minute.

A lot of citizens do not wash their hands when the performance in which they connect would deserve it. The majority of research on hand wash practice to date has taken place in high-traffic environments such as airports and public magnetism venues¹⁴. The improvement may be explained at least in part by better compliance with hand-washing instructions when chlorhexidine was used¹⁵. The WHO has recommended washing hands over six stages¹⁶⁻¹⁸.

Conclusion

The survey findings play an important role in assessing handwashing attitudes and practices in the population. Despite the improved standard of living, slightly improved sociolect-economic conditions, constant shortages of detergent and water for washing hands, and a much higher knowledge rate than in other cities, the results achieved are satisfactory. It wasn't hard. The results show that the hand is a fundamental tool for transferring and pointing various types of pathogenic microbes from person to person. To stop the spread of infection, practice good hand hygiene. It is urgently necessary to instill mindfulness in children to draw attention to this incredibly straightforward, uncomplicated, and crucial attitude that can protect them against a variety of infections and ailments.

It should be considered that the load of transient bacterial flora in the hospital environment is more than in the outside area. The entry of pathogenic microflora occurs from outside the hospital wards, then transferred to the patients by the healthcare worker, and has increased great concern. The increase in antibiotic resistance has extremely enhanced healthcare costs and occasionally failure to cure the patients. Therefore, hand washing is one of the most important health priorities throughout the world is very important. A comparison of the results of hands washed with soap and water and alcohol-based antiseptic indicated no significant differences. All the hands that touch the money of this seller have been contaminated with fecal bacteria.

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References

1. Pittet D, Allegranzi B, Sax H, Dharan S, Pessoa-Silva CL, Donaldson L, Boyce JM. Evidence-based model for hand transmission during patient care and the role of improved practices. *The Lancet infectious diseases*. 2006 Oct 1; 6(10): 641-52.
2. Boyce JM, Potter-Bynoe G, Opal SM, Dziobek L, Medeiros AA. A common-source outbreak of *Staphylococcus epidermidis* infections among patients undergoing cardiac surgery. *Journal of Infectious Diseases*. 1990 Mar 1;161(3):493-9
3. United States CDC Hand hygiene guidelines. <http://www.cdc.gov>
4. Casewell M, Phillips IA. Hands as a route of transmission for *Klebsiella* species. *Br Med J*. 1977 Nov 19; 2 (6098):1315-7.
5. Graham M. Frequency and duration of hand washing in an intensive care unit. *American journal of infection control*. 1990 Apr 1; 18 (2):77-81.
6. De Alwis WR, Pakirisamy P, Wai San L, Xiaofen EC. A study on hand contamination and hand washing practices among medical students. *International Scholarly Research Notices*. 2012.
7. Widmer AF, Wenzel RP, Trilla A, Bale MJ, Jones RN, Doebbeling BN. An outbreak of *Pseudomonas aeruginosa* Infections in a Surgical Intensive Care Unit: Probable Transmission via Hands of a Health Care Worker. *Clin Infect Dis*. 1993; 16(3):372-376.
8. Day GH. October: planner's guide. *Health in your hands: a public-private partnership* 2010.
9. Allegranzi B, Storr J, Dziekan G, Leotsakos A, Donaldson L, Pittet D. The first global patient safety challenge "clean care is safer care": from launch to current progress and achievements. *Journal of Hospital Infection*. 2007 Jun 1; 65: 115-23.
10. Lues JFR, Tonder IV. The occurrence of indicator bacteria on the hands and aprons of food handlers in the delicatessen sections of a retail group. *Food Control*. 2007; 18(4): 326-332.
11. Pittet D, Mourouga P, Perneger TV, Members of the Infection Control Program. Compliance with Hand washing in a Teaching Hospital. *Ann Intern Med*. 1999; 130 (2):126-130.
12. Jeong JS, Choi JK, Jeong IS, Paek KR, In HK, Park KD. A Nationwide Survey on the Hand Washing Behavior

- and Awareness. *J Prev Med Public Health*. 2007; 40(3):197-204.
13. Rao MH. Knowledge, attitude, and practice patterns of handwashing in major public sector hospitals of Karachi. *Pak J Med Res*. 2006; 45 (4):87-92.
 14. Katz JD. Hand washing and hand disinfection: more than your mother taught you. *Anesthesiology Clinics of North America*. 2004 Sep 1; 22(3):457-71.
 15. Widmer AF. Replace hand washing with the use of a waterless alcohol hand rub? *Clinical infectious diseases*. 2000 Jul 1; 31(1):136-43.
 16. Ataee RA, Ataee MH, Tavana AM, Salesi M. Bacteriological aspects of hand washing: a key for health promotion and infections control. *International journal of preventive medicine*. 2017; 8.
 17. Davis MA, Sheng H, Newman J, Hancock DD, Hovde CJ. Comparison of a waterless hand-hygiene preparation and soap-and-water hand washing to reduce coliforms on hands in animal exhibit settings. *Epidemiology & Infection*. 2006; 134 (5): 1024-8.
 18. Moslemi M, Ataee RA, Mahmodi R, Daneshmandi M. Effect of disinfectant solutions on the bacterial flora of nurse hands and its effects on infection transmission. S3 Proceedings of the 5th Annual Research Congress of the Baqiyatallah University of Medical Sciences – March 2014. Tehran Islamic Republic of Iran: 2014.