

Knowledge and practice of hand hygiene among practicing physical therapists of Lahore after covid-19 pandemic

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ABSTRACT

Background: Hand hygiene has become an important factor after Covid-19 pandemic. The practicing physical therapists are more prone to infections due to direct contact with patients. The knowledge and practice is therefore very important for them.

Methods: This study is descriptive cross sectional. It was conducted among practising physiotherapist of CMH Hospital and private clinical setups of Lahore. Non probability convenient sampling was used for participant selection. Window SPSS 23.0 was used for statistical analysis.

Results: The data was collected from 206 participants. 123 participants were males and 83 participants were females. In answer to if the participants received education of hand hygiene, 81 participants answered no and 125 answered in yes. In an another question about the use of alcohol based hand rub for hand hygiene 60 participants answered no and 146 participants answered yes. The total score for knowledge and practice of hand hygiene was 64 from question number 3-11. Question number 7 of the questionnaire consists of further 8 parts, that's why the total score becomes 64. The mean score percentage was 70.59 ± 16.94 . In question 12 the participants were asked about who have given the idea to perform hand hygiene, 104 told that their manager, 89 told that their peer and 13 participants told that their patients remind them about hand hygiene. The participants faced some barriers in this regard e.g. out of product material, too busy in work, forget about hand hygiene etc.

Conclusion: The study shows that most physical therapists of Lahore have better knowledge and practice of hand hygiene. Both male and female practicing physical therapists are well aware of the importance of hand hygiene. But few barriers such as non-convenient, out of product material influence in practicing hand hygiene.

Key Words: Covid-19 pandemic, hand hygiene, knowledge, physical therapist

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Introduction

Following the Covid-19 outbreak, healthcare professionals now give hand

cleanliness a lot of thought (1). A successful hand hygiene programme is said to include monitoring hand hygiene

compliance. The information gathered may be utilized to give medical personnel feedback, pinpoint hospital locations with low hand hygiene compliance, and evaluate the results of focused treatments (2).

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The two main tactics for enhancing hand hygiene (HH) are observation and feedback. The best approach currently available is direct overt observation (3). Healthcare professionals (HCPs) have been impacted by the corona virus disease (Covid-19) pandemic in their clinical job. HCPs now have to follow new rules and procedures to safeguard themselves from workplace dangers (4). Unfortunately, healthcare professionals do not practice good hand hygiene. Only 31% of healthcare professionals, according to the American Association for Healthcare Epidemiology, are completely conversant with appropriate hand hygiene techniques (5). Lack of hand hygiene has been identified as the core facilitator of healthcare associated infections (6). Worldwide, 4% of patients have healthcare-associated infections (HAIs), which are also responsible for about 100,000 fatalities each year in the US (7). One of the best ways to stop the spread of healthcare-associated infections (HAI) is to practice hand hygiene (HH), however hospital staff members still don't follow this advice enough (8).

Hand hygiene (HH) is acknowledged by the World Health Organization (WHO), Pan American Health Organization

(PAHO), and public health organizations as a component of a comprehensive preventative strategy (9). While some agencies have issued recommendations for extended use or reuse of certain types of personal protective equipment, healthcare workers have raised concerns about the safety and effectiveness of these practices (10). Healthcare professionals commonly come into contact with microbiological and biological illnesses brought on by contaminated excretions or secretions. The Brazilian Ministry of Labour and Employment has set rules for common precautions against illnesses and workplace accidents. The terms Personal Protective Equipment (PPE) in the Workplace (Brazil, 1978) and Standard Precautions for Health Workers (Brazil, 2005) are used in these regulations, respectively. "Biosecurity practices" (d. the use of PPE and hand hygiene) have been regulated in Brazil for more than a decade, but arguments on the matter have become increasingly heated as a result of the corona virus disease 2020 (Covid-19) outbreak. From its starting point in Wuhan, China (December 2019), the Covid-19 infection expanded steadily until it reached pandemic proportions in March 2020. The World Health Organization claims that Covid-19 spreads (6). In order to eradicate Covid-19 in hospitals, healthcare workers' (HCWs) commitment to hand hygiene is essential (11). To prevent the spread of nosocomial diseases, proper hand hygiene is crucial (12). The most often advised method of defense against Covid-19 is the use of personal protective equipment and hand cleanliness (13).

Physiotherapists (PTs) are crucial to the physical recovery and wellbeing of

individuals with chronic medical disorders. To decrease the spread of the SARS-CoV-2 virus, physiotherapists should adhere to established practices when delivering outpatient physiotherapy treatments (14). Health care professionals' hand hygiene compliance (HHC) is still not at its best and effective monitoring methods is missing (15). A quicker and more effective way of washing hands has been developed as a result of the widespread adoption of the WHO multimodal hand hygiene improvement plan and ongoing initiatives to replace soap and water with alcohol-based hand rub. The best preventive measure to lower illnesses linked to healthcare is hand washing using alcohol-based hand sanitizer (16).

In hospitals, hand hygiene reduces cross-infection; however healthcare professionals seldom follow the recommended practices. Successful hand hygiene behaviors depend on having quick and easy access to skin protection and hand hygiene (17). The rationale of the study is to find the importance of hand hygiene because after Covid-19 the health care professionals become conscious about overall hygiene. The study will provide information and importance about the knowledge and practice of hand hygiene to clinical physical therapists after Covid-19 pandemic. Our objective is to assess the knowledge and practice of hand hygiene among practicing physical therapists of Lahore after Covid-19 pandemic.

Methods

It is a descriptive cross-sectional study. It was approved by Ethical review board of CMH Lahore Medical College and Institute of Dentistry via letter number 703/ERC/CMH/LMC dated 25-04-2023.

Sample size was 206. Non-Probability convenient sampling technique was used to collect the data. The study population was practicing physical therapists. The study was conducted among practising physiotherapist of CMH Hospital and private clinical setups of Lahore. The duration of study was 6 months from Jan 2022 to July 2022. Data was collected from CMH Lahore, Mayo hospital and National Hospital. The selection criteria was both male and female physical therapist who were working in different clinical setups and exclusion criteria includes therapists who were working in educational institutes and outside of Lahore.

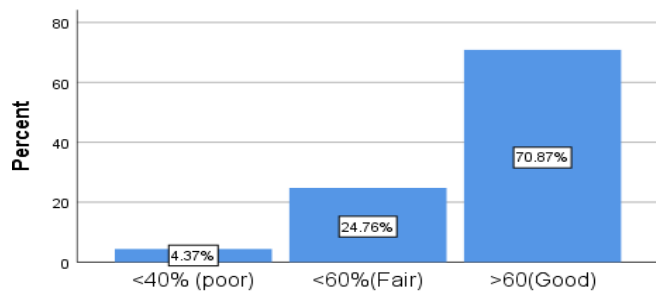


Fig 1: Knowledge and Practice of Hand Hygiene

Results

The data was collected from 206 participants. 123 participants were males and 83 participants were females. In answer to if the participants received education of hand hygiene, 81 participants answered no and 125 answered in yes. In an another question about the use of alcohol based hand rub for hand hygiene 60 participants answered no and 146 participants answered yes. The total score for knowledge and practice of hand hygiene was 64 from question number 3-11. Question number 7 of the questionnaire consists of further 8 parts, that's why the total score becomes 64. The mean score

percentage was 70.59±16.94. In question 12 the participants were asked about who have given the idea to perform hand hygiene, 104 told that their manager, 89 told that their peer and 13 participants told that their patients remind them about hand hygiene. The participants faced some barriers in this regard e.g. out of product material, too busy in work, forget about hand hygiene etc.

The knowledge and practice of hand hygiene percentage was divided into 3 categories. Amongst data collected from 206 practicing physical therapist through “staff survey hand hygiene questionnaire”, about 70.87% physical therapists have good knowledge and practice of hand hygiene and about 24.76% were fair enough in their knowledge of hand hygiene practice and only about 4.37% were from poor category. The result shows that the most of physical therapists are well aware about the knowledge and practice of hand hygiene.

Discussion

This study was about the hand hygiene among practicing physical therapist of Lahore. The data reveals that the hand hygiene practice has been a main and important part of practices in daily life of practicing physical therapists.

The participants faced some barriers e.g. not convenient, out of product, don't like/problem with product, too busy, forget, unsure of need and some other barriers (allergy with the product). These barriers interfere with the practice of hand hygiene even though the participants have good knowledge about the hand hygiene. These barriers increase the incidence of infection in practicing physical therapists.

Stanger up et al conducted a study in surgical department of an American

hospital. Comparative studies showed that, as compared to the intervention period (phase 1), the HHC was considerably lower during the pre-pandemic follow-up period (46% vs. 58%, P .0001) and the follow-up period during COVID-19 (34% vs. 58%, P .0001) (20).

As compare to the above study, the participants were more knowledgeable and were practicing hand hygiene in our study with 70.87% participants have good knowledge and practice of hand hygiene.

A total of 212 people (74 physicians, 66 nurses, 52 technicians, and 20 ward aides) volunteered to take part in a study in Karachi, 124 of them were female. 12.3% of patients were using hand sanitizer before and after each patient encounter. Males were found to use disinfectants more frequently than females, and younger people adhered to hand hygiene practices more consistently. Of the participants, 62.73% were aware of WHO guidelines for hand hygiene and majority was aware of hospital-acquired infections. However, more than half of the participants (62.26%) and almost half (45.75%) of the participants had never gone to a formal lecture on the subject (5).

In a survey that was performed in Singapore, all of the employees admitted that maintaining good hand hygiene was an important component of their jobs but failed to comply because of other competing demands. Although they were forgetful, doctors valued reminders. Hand cleanliness was naturally driven in nurses (21). As compared to the above study, our participants also faced the same problems like forget or too busy and some other barriers in practicing hand hygiene. These factors somehow influence in the practice of hand hygiene.

All of the study participants (96) were in the vanguard of the fight against COVID-19 when the study was done at the Jimma Medical Center in Ethiopia. Pharmacy students (21) and nurses (27) made up the majority of the research participants. They were 28,694.048 years old on average. They were all engaged in various COVID-19 preventive techniques. In this study, 95.8% of the participants used hand cleansing material that included alcohol. The most of responders (76.4%) had a positive outlook, 93.8% were informed, and 76% used alcohol-based hand sanitizers to maintain excellent hand hygiene (22).

As compared to this study, the participants were not as knowledgeable as compared to the above mentioned study. The use of alcohol based rub is 70.9% in our study which is low than the mentioned study. But the limitation with the above study is that it has just 96 participants which is quite low than ours.

Conclusion

The study shows that most practicing physical therapists have better knowledge and practice of hand hygiene. Both male and female physical therapists are well aware of the importance of hand hygiene. But few barriers influence in practicing hand hygiene.

Conflict of interest: None.

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- B. Active Participation in Active Methodology
- C. Interpretation/ Analysis and Discussion