

# Factors Associated With Hand Hygiene Awareness and Compliance in Healthcare Settings

Gohar Ashraf<sup>1</sup> , Hammad Akram<sup>2\*</sup> 

<sup>1</sup>Lehigh Valley Health Network, Allen Town, PA, USA

<sup>2</sup>Independent Collaboration, DFW-Metro, Texas, United States

\*Correspondence to: Hammad Akram, MBBS, MPH, CIC, Independent Collaboration, DFW-Metro, Texas, United States.  
Email: hammadakram77@yahoo.com



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## Dear Editor,

Hand hygiene practices in a healthcare facility can have significant impacts on illnesses' course, morbidity, and mortality among patients as well as overall associated healthcare costs. A recent cross-sectional study with a sample of 250 physicians describes the awareness and compliance of hand hygiene practices at a single medical center during the COVID-19 pandemic.<sup>1</sup> It was found that the physicians with work experience greater than 10 years had a higher level of knowledge around the importance of hand hygiene.<sup>1</sup> Furthermore, alcohol-based hand sanitizers (ABHS) were preferred and routinely used.<sup>1</sup> Although the role of hand hygiene through ABHS in reducing COVID-19 transmission is currently unknown; ABHS is found to be effective in inactivating COVID-19 virus.<sup>2</sup> The authors also reported that only 36% of physicians had good knowledge about hand hygiene, 35% of respondents were aware of all steps of hand hygiene while 50% had an opportunity to attend infection control training sessions. Moreover, they found that around 44% of participating physicians were performing a quick method of hand hygiene, a description of which was not discussed or mentioned.<sup>1</sup> About 73% of physician participants stated that hand hygiene can be effective in controlling COVID-19 infection. These findings are important because knowing hand hygiene and its relationship with the pathobiology of illnesses can influence healthcare workers to follow appropriate steps while performing it, which can result in a reduction of hospital acquired infections and disease transmission in general.<sup>3</sup> Centers for Disease Control and Prevention recommends all healthcare providers and staff to perform hand hygiene during routine patient care activities for example before and after touching a patient and handling of devices or instruments. Handwashing with soap and water is recommended after caring for patients with

infectious diarrhea, or if hands are visibly soiled.<sup>4</sup> Effective hand hygiene can be achieved using ABHS or washing hands with soap and water for at least 20 seconds.<sup>4</sup>

Hand hygiene practices are dependent on many individual and contextual factors. For example, in a study, although not statistically significant, hand hygiene compliance was low during evening shifts compared to morning shifts.<sup>5</sup> Furthermore, lack of time, failing to remember, and low or lack of supplies contributed to low hand hygiene compliance. The factors that improved compliance were peer-pressure, familiarity with hand hygiene guidelines, having awareness (education) of benefits/consequences associated with hand hygiene practices, the strategic location of ABHS dispensers, availability of supplies, and work culture supporting and promoting positive behavior.<sup>5</sup> The strategies to improve hand hygiene compliance can be structured based on individual and contextual factors mentioned above. Educational approaches such as peer-to-peer coaching, just-in-time teaching, and offering continuous educational modules incorporated with concepts of repetition and reinforcement can be essential. Hand hygiene behavior of staff can be monitored by sending anonymous trained observers to the units to collect compliance data, which then can be used to recognize unit achievements or develop remedial strategies depending on the results.

## Authors' Contribution

HA presented the idea. GA and HA performed literature search and developed initial draft. HA carried out formatting and editing, and GA reviewed and approved the final version.

## Competing Interest

None.

## Ethical Approval

Not applicable.

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