

Factors affecting hand washing compliance



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Factors Affecting the Compliance of Hand Washing Among Healthcare Workers in a Long-term Care Facility in Los Angeles, California

- Noela Gadingan
- Samantha Tweeten, PhD

Healthcare workers deal with different types of patients every day. Every patient has their own microorganisms that contributed to the development of their diagnosis. Hand hygiene plays a critical role especially among healthcare workers as they deal with not only one but several patients. Hand washing is vital in the prevention of the different hospital acquired infections or also known as the nosocomial infections. The increasing incidence of nosocomial infection is very alarming knowing that there are many organizations such as the Joint Commission and Centers for Disease Control and Prevention who exert effort to implement the guidelines of hand hygiene among healthcare workers.

A research article on a survey on hand washing practices and opinions of healthcare workers shows that healthcare workers knew the importance and benefits of hand washing, but still, they tend to overestimate their own compliance. It also shows that healthcare workers were more concerned on the different interventions that would make hand washing easier (Harris et al., 2000).

Another research article on hand hygiene compliance rate in the United States of America presented a 12-month multicenter collaboration where researchers measured the product usage and provided feedback about hand washing compliance to assess the hand washing compliance rates in the

United States of America. The result shows that the rate of hand washing among healthcare workers is still at or below 50%; the researchers suggest that with the combination of monitoring and providing feedback, compliance rate would increase (<http://ajm.sagepub.com.ezproxy.nu.edu/content/24/3/205>).

The researcher of this study chose this topic because there are many programs and organizations that exerted efforts, time, and money to implement hand washing, yet there are still incidences of non-compliance. The topic on hand washing seems is common and seems to be easy yet ignored by some individuals. As a result, there are a lot of unanswered questions on the aspects of hand washing compliance. The increasing incidence rate of nosocomial infections among the patients provides a significant reason to conduct this research study. Healthcare providers are expected to care, cure, and help patients achieve a quality of life; thus, hand washing should not be a want but rather a need.

However, there are some knowledge gaps that still need answers and limitations that may not have given a complete solution to address this issue. The purpose of the study is to know the different factors that affect the compliance among healthcare workers in a long-term care facility in Los Angeles California and to assess the knowledge and attitude of the healthcare workers concerning the practice of hand washing.

The hypothesis is that there are several factors affecting the compliance of hand washing among healthcare workers, such as lack of awareness, lack of education on the importance of hand washing, personal attitude of

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healthcare workers, and insufficient supply of hand washing materials. The researcher believes that through knowing the different factors that affect the compliance of hand washing among healthcare workers, it would give benefits not only among individuals but also to the community and society as a whole. Individuals, both patient and healthcare providers, protect themselves from different infectious diseases knowing that proper hand washing is the universal precaution. It would also help build a healthy community if there will be an absence or decrease incidence of infectious diseases. To the society as a whole, it would help in developing appropriate planning to identify the different solutions that would address the different factors identified. It would contribute to the different healthcare organizations and health policy makers to implement suitable actions and would hopefully achieve 100% compliance among healthcare workers and decreasing incidence rate of nosocomial infections among patients.

Review of Literature

A research study by assessed the knowledge, attitude, and practice of hand washing among healthcare workers in Ain-Shams University Hospital and had an inspection of 10 wards on that hospital for facilities needed for hand washing (Elaziz, 2009). A cross-sectional study was being conducted from the period of June until November 2006. For the data collection of this study, 10 infection control nurses were trained on how to carefully observe hand washing opportunities and to fill out forms needed for the study. There were three research instruments used: observation form on hand washing, form on ward inspection, and, to assess the knowledge and attitudes of healthcare workers regarding hand washing, a self-administered questionnaire was

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used. The results showed that doctors had a 37.5% compliance, which is significantly higher compared with the other groups of healthcare workers, but only 11.6% executed the proper hand washing correctly. Routine hand washing, which is 64.2%, was the most common type of hand washing that is being practiced among healthcare workers, compared with the antiseptic hand washing, which is only 3.9%. In addition, inadequate supply of paper towels was identified as another factor. Nurses were identified to have more knowledge on hand washing compared with doctors. They believed that to increase the compliance on hand washing, administrative orders and a continuous observation as well must be implemented. The researchers of this study suggested that to give solution to these factors that affect the compliance of hand washing, there should be an implementation on multifaceted interventional behavioral hand hygiene program that would monitor and provide performance feedback, an increase in hand washing supplies, and an institutional support.

McGuckin, Waterman, and Govednik (2009) studied on hand hygiene compliance rates in the United States of America. Their study is a 1-year multicenter collaboration with the use of a product/volume usage measurement. All healthcare facilities were offered the measurement program. The only criteria for enrollment that was used in the study was the site's willingness to submit the monthly summaries of the volume of the product usage and patient bed days to a more secure protected database that is important in generating, measuring, and benchmarking reports. The sites that were enrolled were encouraged to make use of the reports in giving feedback to the healthcare workers. They received as well an

implementation manual, and they would also receive a support from the researchers of the study in implementing the program at their site. The researchers made use of three reported methods of measuring the hand washing compliance. These are as follows: direct observation, healthcare workers self-reporting, and an indirect calculation based on the product usage of hand washing. The results showed that hand washing compliance in an intensive care unit were 26% and 36% for non-ICUs. Meanwhile, after 12 months of measuring the usage of product and giving feedback, the compliance rate increased to 37% for ICUs and 51 for non-ICUs. However, the compliance rate on hand washing among healthcare workers is at or below 50%. The researchers suggested that to give solution to this, there must be a combination of monitoring and feedback to increase the compliance rate.

Aziz (2013) studied on how availability of materials improved the hand hygiene compliance. The annual National Health Survey provides healthcare workers the opportunity to share their opinions on the availability on the materials used in hand washing. There were three community buildings and 31 wards that were reviewed to assess the availability of materials needed in hand washing, as well as alcohol hand rub located on wards and at entrances. The results showed based on the audit that in 30 out of 34 areas, the availability of hand washing materials was good. Both staffs in ward and in community emphasized what other materials were required for hand washing. After knowing the inadequacies, steps were made to provide these. The audit carried out made the practice of hand washing to be benchmarked across the trust and enhanced the awareness of the staff on the importance

of hand washing. Therefore, as a result of this, compliance of hand washing among healthcare workers increased from 80% to 95%.

A survey on hand washing practices and opinions of healthcare worker was conducted (Harris et al., 2000). The research instrument that was used in this study is a 74-question survey that was given to healthcare workers in two tertiary care hospitals. The result of the study shows that healthcare workers knew the importance and benefits of hand washing, but still, they tend to overestimate their own compliance. It also shows that healthcare workers were more concerned on the different interventions that would make hand washing easier.

The different literature review from the four researches provide an explanation to conduct further studies to enhance the compliance rate of hand washing practices among healthcare workers. Although there are many studies conducted previously from different researchers, there is still a need to know more on the different factors why we cannot achieve a 100% compliance among the healthcare workers who were known to care and cure the sick.

Methods

The participants of the study are the healthcare workers, which includes the following: doctors, nurses, nursing assistants, and therapists. It will include both male and female, all types of ethnicity, and age. They must be a current employee in a long-term care facility.

This research study will make use of a cross-sectional study design that will be conducted in a long-term care facility in Los Angeles in a period of 2 years. The researcher will conduct a study observation where different areas in the healthcare facility will be checked. The observation will be carried out where healthcare workers usually do invasive procedures, have personal contact with the patients, and perform non-invasive procedures such as taking the vital signs of the patients and obtaining specimen for the laboratory, during waste disposal.

For the data collection, it will make use of the same process that was carried out on the research study by Elaziz (2009). In collecting data, there will be two infection control nurses who will be trained on doing the hand washing observation and in filling out the observational and ward inspection form. In a covert manner, the nurses that were trained will fill out the observational form, which records whether hand washing was carried out or not and if it is carried out appropriately or not. He or she will also record the type of hand washing that was carried out by the person observed and note what type of errors that was committed when it was done incorrectly. In checking the availability of the hand washing materials, which include soaps, sinks, towels, drying materials, and hand washing posters and guidelines, a ward inspection form will be filled up.

There will be three research instruments that will be used in gathering the data for this research study. The same research instruments that were used by Elaziz (2009) in her study will be used. The three research instruments are observation form of hand washing, form for ward inspection, and, to know whether there is lack of awareness and education and whether a

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problem on healthcare workers attitude is a factor, a self-administered questionnaire will be used as part of the research instrument. The self-administered questionnaire would assess whether lack of awareness and education, and personal attitude among healthcare are factors affecting the compliance on hand washing. The questionnaire to assess for lack of awareness and education will include different questions covering different aspects of hand washing practices, including the use of time, proper execution, and materials needed for hand washing. A Likert scale will be used in assessing the attitude of healthcare workers. The program that will be used for data entry, checking, and analysis will be the Statistical Package for Social Science.

For the ethical consideration, the approval of the design and the different steps of the study were conducted with the different members of the infection control unit in a long-term care facility in Los Angeles, California. This study will prepare informed consent forms that will provide prospective study participants information regarding the research. The observation of hand washing practices among healthcare workers is already considered as a routine checking of infection control activities by the infection control nurses.

The bias that may include in this study is information bias because participants may not provide honest answers to appear in compliance to the guideline on proper hand washing. Another bias that might happen is the measurement bias when a research cannot control for the effects of the data collection and measurement, knowing that self-administered questionnaire is one of the types of the research instrument used in this study

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The limitation of the study will include the possible biases that might be present especially in the data collection process, which will affect the credibility and reliability of the result of the research study, and the time and resources in conducting this research study.

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