Issue Analysis: Hand Hygiene

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Abstract

Hand hygiene is an evidence-based practice (EBP) highly regarded by hospitals, patients, and nurses to prevent the spread of illness and infection. This paper will define hand hygiene, review the literature and theories regarding hand hygiene, assess the healthcare environment, and make recommendations based on the assessments. Finally, the American Nurses Association (ANA) Standards of Practice, literature studies, and the Quality and Safety Education for Nurses Institute (QSEN) will be used as sources for improvement recommendations.
Issue Analysis: Hand Hygiene

Proper hand hygiene is a skill that is often overlooked and undervalued within the hospital setting. Millions of people each year are afflicted with hospital-acquired infections (HAIs), yet hand hygiene compliance rates still hover at seventy-seven percent (Gul, Ustundag, & Zengin, 2012, p.275). As nurses we know how to prevent HAIs yet they still happen, and the associated costs continue to rise. Therefore, it is a nurse’s job to define hand hygiene, improve hand hygiene compliance, decrease hospital acquired infections, and educate our patients on the importance of hand hygiene.

Defining hand hygiene is an important step. Numerous organizations have different definitions of hand hygiene, but Boyce, Pittet (2002) and the World Health Organization (WHO) (2009) define hand hygiene in the same manner. According to the WHO (2009), Boyce, and Pittet (2002) hand hygiene is defined as “routine hand washing, antiseptic hand wash, antiseptic hand rub, or surgical antisepsis” (p.3, p.2). Therefore, it is important to understand the purpose and importance of hand hygiene.

The purpose and importance of hand hygiene are simple: they work in harmony to achieve the same ideals. The goal of hand hygiene is to cleanse the hands of bacteria, and prevent the spread of illness and infection (Muller, Carter, Siddiqui, & Larson, 2015). This is important within a hospital setting because of the numerous illnesses, infections, and HAIs; and through the use of hand hygiene these can be prevented (Cure & Van Enk, 2015, p.917).

Hand hygiene compliance is an issue within every hospital (Cure & Van Enk, 2015). No hospital has its compliance rate at one hundred percent, so hospitals encourage their nurses and staff to comply with the hand hygiene regimens. Complying with the regimens not only decreases a patient’s risk of HAIs, but also lowers a hospital’s costs associated with the
infections (Korhonen, Ojanpera, Puhto, Jarvinen, Kejonen, & Holopainen, 2015, p.2). Nurses must also stress the importance of hand hygiene to their patients. Often patient’s do not realize how illnesses spread, and how susceptible they are; so it is the nurses job to educate.

Different viewpoints must be looked at when assessing hand hygiene. First, the nurse’s viewpoint must be assessed to see how the nurse performs hand hygiene, and when the nurse believes it is necessary. Second, the patient’s viewpoint must be evaluated. The patient is being taking care of, and they are entrusting their life to the nurse. Finally, a hospital’s policies must be taken into account. Not every hospital has the same hand hygiene policies; therefore it is important for the nurse to read their hospital’s policies so the nurse knows how to properly perform hand hygiene.

Hand hygiene is regarded as a major health issue within hospitals, and involving nurses makes the issue more personable. Nurses use hand hygiene daily and therefore know what does and does not work. They can also promote change within the hospital when new hand hygiene protocol is implemented. Interacting with patients and visitors also provides nurses with opportunities to educate them on improving hand hygiene compliance. Finally, nurses can educate local communities on the importance of hand hygiene. These preventative steps will decrease illness and infection rates, while promoting healthy living.

Theory

Nursing Theory

Nursing theory should be applied to hand hygiene, and is important to consider. Florence Nightingale is known as the founder of nursing, and was the nursing theorist who developed the Environmental Theory on ten environmental factors she felt affected a patient’s health and wellness (Petiprin, 2015, para 7). Those needs were “ventilation and warming, light and noise,
cleanliness of the area, health of houses, bed and bedding, personal cleanliness, variety, offering hope and advice, food, and observation” (Petiprin, 2015, para 7). Nightingale thought those factors should be met based on the patient’s wants or needs, and that “the focus of nursing is to alter the patient’s environment in order to affect change in his or her health” (Petiprin, 2015, para 4).

Based on Nightingale’s theory, a patient’s health and wellness are dependent on their environment. Therefore, improving a patient’s environment results in better health and wellness. It is important for nurses to perform proper hand hygiene, educate, and communicate with patients. When these measures are performed, the patient’s environment will improve along with their health and wellness. Ultimately, it is important for the nurse to perform hand hygiene and maintain a clean environment in order for the patient’s health to improve.

Many illnesses, infections, and HAIs can be eliminated through the use of hand hygiene. Nurses must perform the proper regimen when entering and exiting a patient’s room. Nightingale stressed the importance of cleanliness, and this can be achieved through the use of hand hygiene (Petiprin, 2015, para 4). Before entering a patient’s room a nurse should use antiseptic hand rub, don gloves, and upon exiting should dispose of the gloves, and wash their hands again (Boyce & Pittet, 2002, p.7, WHO, 2009, p.60). It is the nurse’s responsibility to prevent the spread of HAIs, and through the use of proper hand hygiene this can be accomplished.

Interdisciplinary Theory

Theories from various disciplines can be applied to the skill of hand hygiene. The Theory of Planned Behavior derived from the social sciences and psychology field, and demonstrates the power of behavior on a person’s ideals or behavior. The theory asserts that a

Promoting proper hand hygiene is a behavior that can be done within a hospital setting. Having a nursing staff who routinely performs hand hygiene in and out of patient’s rooms =, and motivates other nurses to do the same (Ajzen, 1991, p.184). The same can be said of hand hygiene compliance rates; the higher the rate, the more likely nurses are to perform hand hygiene. Ultimately, the way a person behaves is based on their motivation and ability to perform that skill. If a person has positive motivation and the need to improve their skill, the behavior will improve, whereas if the motivation is negative their behavior and skill will not improve (McLaws et al., 2012, p.337).

The Healthcare Environment

Assessment

Hand hygiene is introduced to students in nursing school and from that point on, nursing students are expected to use proper technique in the clinical setting. If hand hygiene is not stressed through clinicals and school, it can fall to the wayside. Therefore, it is very important to reassess and teach the importance of hand hygiene in school and hospital settings so it can be performed properly (Korhonen et al., 2015, p.7).

Korhonen et al., (2015) observed a cross-sectional observational study on hand hygiene compliance and fidelity in Finland (p.1). Their findings showed compliance rates at 77-100%
among nurses, fidelity at 76% among nurses, and an average scrub time for nurses of 15.3 seconds (Korhonen et al., 2015, p.6). In a different study, Cure and Van Eck (2015) found hand hygiene compliance had a high correlation to “location, usability, and accessibility”, with compliance rates over a three year period at 81.6% (p.919). This is vital information for healthcare organizations to know when improving compliance rates. Having antiseptic stations visible, available, and user friendly promotes higher compliance rates among healthcare personnel. Also, providing educational seminars on hand hygiene makes the topic relevant and provides educational hours for healthcare personnel (Van De Mortel, Kermode, Progano, & Sansoni, 2011, p.576).

The previous studies dealt with nurses and their hand hygiene compliance, but studies have shown patients and visitors also struggle with compliance. Randle, Firth, and Vaughn (2012) performed an observational study in two pediatric wards and found surprising results. Within the pediatric wards Randle et al., (2012) found hand hygiene compliance was high among nurses (75%), but low among visitors (23%) (p.2586). Randle et al., (2012) concluded healthcare personnel had a higher level of compliance due to patient interactions and education regarding hand hygiene (p.2589).

Although patients and visitors were shown images of hand hygiene, their compliance levels were still low. According to Randle et al., (2012) this was due to a lack of education on hand hygiene, or the thought that they do not touch as many germs as nursing staff (p.2589). In any instance, education needs to be promoted between patients and visitors in order to increase hand hygiene compliance.
Inferences, Implications, and Consequences

After reviewing the literature, inferences, implications, and consequences for nurses, patients and the hospital can be determined. Cure and Van Enk (2015) found making hand hygiene stations visible, and accessible, while standardizing patients rooms improved hand hygiene compliance (p.920). Placing hand hygiene stations in inaccessible areas, or designing rooms based on hospital preference also interferes with Nightingale’s Environmental Theory. If the nurse is not able to properly perform hand hygiene, this puts the patient at risk of HAIs (Petiprin, 2015, para 3). This also affects a patient’s overall health and costs, which later affects the hospital.

A patient’s health and wellness are the nurse’s top priority, but when patients acquire HAIs the nurse’s care can be called into question. Studies show, each year millions of patient’s are afflicted with HAIs and its effects (McLaws et al., 2012, p.336). If nurses perform hand hygiene properly, it will decrease HAIs, the associated costs, and length of stay (WHO, 2009). But this depends on nurses performing hand hygiene properly, effectively, and in a timely manner. That does not always occur, which can lead to negative patient outcomes.

Hand hygiene is a task all nurses learn, but nurses can become lenient the longer they work. This can lead nurses to feel they do not have to perform hand hygiene in certain situations because a patient has never gotten a HAI in that situation. A nurse who does not perform or forgets to perform hand hygiene could also face legal or workplace implications. This is one reason why nurses should always perform hand hygiene. Performing hand hygiene not only decreases a patient’s risk of HAI, but also decreases the risk of lawsuits and costs for hospitals (McLaws et al., 2012, p.336).
One of the major reasons why hospitals monitor hand hygiene compliance is the cost associated with HAIs. According to Van De Mortel et al., (2001) “5,000,000 cases of HAI occur each year, contributing to excess health costs of 13-24 billion” (p.570). HAIs and their associated costs are considered financial burdens for the healthcare system, and according to Gul et al., (2012) good hand hygiene is an important task that can prevent HAIs (p.277). Therefore, training nurses to properly perform hand hygiene will decrease the risk of HAIs and the associated costs.

**Recommendations**

**ANA Standards of Practice**

The ANA developed the Standards of Practice in order to describe the expectations for the nurse (ANA, 2010, p.xvii). There are ten Standards of Practice, and they are “ethics, education, evidence-based practice and research, quality of practice, communication, leadership, collaboration, professional practice evaluation, resource utilization, and environmental health” (ANA, 2010, p.iv). Although many of these standards can relate to hand hygiene, three will be discussed: education, evidence-based practice and research, and environmental health.

Education is a concern for nurses and their patients. According to the ANA (2010) a nurse must participate in education in order to obtain personal growth, self-reflection, acquire and maintain skills (p.49). When nurses obtain education on hand hygiene they should educate others, and be able to perform the task themselves. If this does not occur, nurses are putting their patients and themselves at risk for infection, HAIs, and illness (ANA, 2010, p.49). According to Ghezeljeh, Abbasnejad, Rafii, and Haghani (2015) providing multimodal continuing educational training classes improves a nurse’s ability to learn (p.762). Nurses do not learn in the same manner, therefore providing different educational resources enables nurses to find which way
they learn best (Ghezeljeh et al., 2015, p.763). Another way to ensure nurses properly perform hand hygiene is to provide seminars and hands-on training to show nurses how to wash their hands properly and use antiseptic hand rub. This could be a continuing education credit, which teaches nurses the evidence-based practice and research on hand washing.

Evidence-based practice and research should be a part of every nurse’s practice. According to the ANA (2010) a nurse should use evidence-based practice and research in order to “guide practice” (p.34). Utilizing evidence-based practice and research ensures patients receive the highest quality care, while nurses practice the most current research. Communicating with patient’s about research results on hand hygiene compliance and EBP is another way this can be accomplished (ANA, 2010, p.34). Nurses communicate with patients daily, and when discussing proper hand hygiene evidence-based practice and research can be used to discuss its importance. According to Randle et al., (2012) providing evidence and research on proper hand hygiene can decrease a patient’s risk of HAIs and help improve hand hygiene compliance (p.2589). Therefore, nurses should use evidence-based practice and research when discussing hand hygiene; it can strengthen the nurse’s teaching and provide evidence to back up their claims.

Environmental health is a key aspect to nursing, and an ANA standard. A nurse should work in an environment that is safe for the patient and the nurse, and be able to apply concepts to keep the environment safe (ANA, 2010, p.41). Promoting proper hand hygiene not only reduces a patient’s risk of infection and HAIs, but keeps the nurse safe (Muller et al., 2015, p.1). A healthy environment can be achieved through the actions of the nurse.

A nurse’s actions prevent the spread of HAIs, and promote proper hand hygiene. Handwashing should occur whenever hands are soiled, and when entering or exiting a patient’s room. Fingernails should also be kept clean and short, and should be scrubbed when performing
hygiene” should be implemented within hospital settings (p.101-102). My five moments helps
nurses understand when they should be performing hand hygiene (WHO, 2009, p.100). The five
moments include “before touching a patient, before a clean or aseptic procedure, after bodily
fluid exposure, after touching a patient, and after touching patients surroundings” (WHO, 2009,
p.101-102). These recommendations should improve hand hygiene compliance, and decrease a
patient’s risk of HAIs.

**QSEN Competencies**

The goal of the Quality and Safety Education for Nurses (QSEN) Institute is to “prepare
future nurses with the knowledge, skills, and attitudes (KSAs) necessary to continuously improve
the quality and safety of the healthcare systems” (QSEN, n.d., para 1). QSENs six competency
areas are; patient-centered care, teamwork and collaboration, evidence-based practice, quality
improvement, safety, and informatics (QSEN, n.d., para 1). Although there are six areas QSEN
wants future nurses to focus on, three will be addressed to assess what recommendations can be
made for hand hygiene.

Nurses use teamwork and collaboration within the hospital to promote hand hygiene
compliance. The infection control department can team up with nurses, and educate the
healthcare staff and patients about the importance of hand hygiene compliance. According to
Ghezeljeh et al., (2015) a nurse’s prior education on hand hygiene needs to be assessed, and then
education can be provided to further knowledge on the topic (p.763). This teamwork and
collaboration can lead to a decrease in illness, and HAIs, and an increase in hand hygiene
compliance.
Providing patient-centered care is another way hand hygiene can be improved. Nurses interact with patients daily, providing an opportunity to teach the importance of hand hygiene compliance. Nurses we provide care based on patient needs, wants, and what is deemed necessary. Therefore, it is important to provide hand hygiene education throughout the patient’s hospital stay in order to show the importance of this simple act. According to Van De Mortel (2011) educating patients and healthcare staff improves hand hygiene compliance, and reduces HAIs (p.576). Through this simple educational act, a patient can be taught something new, while providing them the best-personalized care.

Finally, when talking about hand hygiene safety is a major issue. According to the WHO (2009) “1.4 million cases of HAIs occur in developed and developing countries at any time, and are related to hand hygiene compliance” (p.6). Patient safety is key; through the use of proper hand hygiene the number of HAIs can decrease. Implementing more visible and user-friendly hand hygiene stations on hospital floors provides easy access to hand hygiene for nurses, patients, and visitors. Cure and Van Enk (2015) report “hand hygiene compliance is influenced by visibility and accessibility of dispensers” (p.917). Hospitals should make an effort to make hand hygiene stations visible and accessible in order to increase compliance and patient safety.

**Conclusion**

Hand hygiene is a skill taught in nursing schools, yet subpar compliance numbers still lead to patients acquiring HAIs (Korhonen et al., 2015, p.6). It is important for healthcare organizations to be aware of their compliance rates and HAIs. Being aware of these rates can lead organizations to implement and improve measures to provide better, safer, higher quality care for patients. Nurses must also reassess and motivate themselves to constantly learn new evidence-based practice and research. Through the use of continuing education programs,
mentors, and research, nurses can improve the way they perform hand hygiene. If nurses do not seek ways to improve their hand hygiene performance, they become complacent and increase their patient’s risk of acquiring illnesses, infections, and HAIs.

Although hand hygiene may seem small and insignificant in light of everything happening in a hospital, it carries large implications with it. Improving the way one performs hand hygiene not only decreases a patient’s risk of illness, infection, and HAIs, but also protects the nurse. Therefore it is important to remember that although hand hygiene may seem tedious it can prevent the spread of illness and infection and save lives.
References


