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Clinical research article

Nurses' perceptions of reasons for persistent low rates in hand hygiene compliance

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ABSTRACT

Aim: The purpose of this study was to explore nurses' perceptions of reasons for persistent low rates in hand hygiene compliance in the Critical Care Unit and their recommendations for improvement.
Design and methods: This study used an exploratory, descriptive survey design to identify critical care nurses' perceptions of barriers to hand hygiene compliance in the unit and their recommendations for improvement.
Results: Nurses selected high workload, understaffing and suggested lack of time as the main problems with hand hygiene compliance in the critical care unit. Second to that, they identified difficulty accessing sinks and lack of appropriately located hand sanitisers at the point of care complemented by suggestions of not enough sinks and inconveniently located hand sanitiser as major barriers to hand hygiene compliance.
Conclusion: Results of this study indicate that high workload and understaffing added to difficulty accessing hand hygiene resources contribute to low rates of hand hygiene compliance in the critical care unit. Addressing nursing understaffing and workload and making some environmental modifications to allow easy access to sinks and hand sanitisers may facilitate nurses hand hygiene compliance in this setting. Further studies on the relationship between nurses' workload, unit staffing, and hand hygiene compliance rates are needed.

Implications for Clinical Practice

- This article contributes to the literature about barriers to hand hygiene compliance, as it focuses on the challenges and recommendations identified by critical care nurses.
- This study emphasises the importance of listening and valuing healthcare workers specific needs and suggestions for improvements to get them engaged in the process of improving hand hygiene compliance.
- The results of this study suggest implications for nursing work assignments and patient safety.

Introduction

According to recent reports from the Centre for Disease Control and Prevention, healthcare workers do not clean their hands as often as they should (CDC, 2016). Poor hand hygiene compliance among healthcare workers contributes to the spread of devastating health care-associated infections and consequently, prolonged patients' hospital stay, disability, increased resistance to antibiotic, increased mortality and high health care cost (WHO, 2009). The World Health Organisation (WHO), the Centre for Disease Control and Prevention (CDC), and The Joint Commission are some of the most influential organisations in healthcare campaigning and promoting efforts to improve hand hygiene compliance in healthcare settings. The problem of healthcare workers low hand hygiene compliance has been studied numerous times; however, suggested interventions to increase hand hygiene compliance vary and compliance continues to be low in hospitals around the United States and the other world nations.

Hand hygiene non-compliance is an international problem, evidenced by the variety of approaches devised worldwide to improve hand hygiene compliance. A team of researchers conducted a

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cluster randomised trial study to evaluate the effectiveness of an intervention involving the hospital leadership in increasing hand hygiene compliance among nurses in the Netherlands (Huis et al., 2013). The study was conducted from September 2008 to November 2009 in 67 nursing wards of three hospitals. Results indicated that having leaders involved and invested in promoting and modeling hand hygiene compliance increases hand hygiene compliance among nurses (Huis et al., 2013). Moreover, in Saudi Arabia, researchers reported that previous emphasis on educating healthcare worker has yielded some results (Tan and Olivo, 2015). They explored perceptions about hand hygiene among healthcare workers using the questionnaire developed by the WHO to 87 healthcare professionals. Findings of this study revealed that healthcare workers understand the importance of hand hygiene in preventing infections in the hospital (Tan and Olivo, 2015). In Canada, the public were surveyed to examine their level of comfort asking healthcare providers to perform hand hygiene at the point of care (Flannigan, 2015). As part of this study, researchers also surveyed healthcare workers to explore how comfortable they would be with the public approaching them about hand hygiene at the point of care. Interestingly, the majority of participants felt that they would be at an increased risk for infection if healthcare providers did not comply with hand hygiene; however, many Canadians did not feel comfortable asking healthcare workers to perform hand hygiene prior to providing care for them. Most of the healthcare providers did not mind if patients were to ask them to perform hand hygiene at the point of care. Researchers recommended that healthcare providers should implement hand hygiene in front of patients as a method of standard practice (Flannigan, 2015). In a more recent study in North Carolina, United States, a programme was implemented involving observations of hand hygiene and immediate feedback among healthcare workers. The study was conducted during 2013–2015 in an 853-bed hospital. This programme was useful in decreasing healthcare associated infections and increasing healthcare workers participation in improving their own hand hygiene compliance (Sickbert-Bennett et al., 2016).

Hand hygiene compliance rates are not optimal in many hospitals across the United States and other nations in the world (Borg et al., 2014; CDC, 2016). Most recently, a team of experts from The Joint Commission Centre for Transforming Healthcare reported that hand hygiene compliance averaged 45.5% in eight hospitals in the United States (Chassin et al., 2015). In the United Kingdom, Ireland, and Central/Eastern European countries, hospitals have established disciplinary measures and obligatory hand hygiene training for persistent hand hygiene non-compliance among healthcare workers (Borg et al., 2014). In Saudi Arabia, researchers observed 242 healthcare workers including physicians, nurses, and therapists, performing hand hygiene in five intensive care units (Alsubaie et al., 2013). They reported a noncompliance rate of 58% associated with the type of intensive care unit (ICU), with the higher rates of noncompliance in the medical ICU and paediatric ICU. Moreover, there was a significant increased noncompliance among physicians (64.4%) and other healthcare staff (65.1%), followed by nurses (55.4%), working during day shift and when taking care of patients (Alsubaie et al., 2013). According to investigators, recommendations for studies to investigate the demands of the unit environment might be helpful in identifying factors affecting noncompliance (Alsubaie et al., 2013). Lack of compliance with hand hygiene practices is still a serious and persistent problem causes of which are not well understood. More studies should be done examining specific barriers to hand hygiene compliance across different hospitals (Chassin et al., 2015).

There is a fatal association between hand hygiene noncompliance and hospital infections leading to the loss of millions of human lives worldwide and a consequent increased financial burden on an already struggling healthcare system (WHO, 2009). Unfortunately, despite the variety of initiatives, campaigns, and efforts to increase hand hygiene compliance among healthcare workers worldwide, 61% of healthcare workers still do not comply with best practice recommendations for hand hygiene (WHO, 2016).

Methods

Aim

The purpose of this study was to explore nurses' perceptions of reasons for persistent low rates in hand hygiene compliance in the Critical Care Unit and their recommendations for improvement. The results of this study may provide new insights into what has become a persistent issue in healthcare, hand hygiene noncompliance. This study will also give critical care nurses an opportunity to contribute to making improvements through their recommendations for increased hand hygiene compliance.

Design

This study used an exploratory, descriptive survey design to identify critical care nurses' perceptions of barriers to hand hygiene compliance in the unit and their recommendations for improvement.

Research questions

(1) What are nurses' perceptions of the reasons for the persistent low rating in hand hygiene compliance in the critical care unit?
(2) What are nurses' suggestions to improve hand hygiene compliance in the critical care unit?

Ethical considerations

Researchers received approval from the institutional review board (IRB 16-029) to conduct this study. This included an initial assessment by peer facilitated review process and a final review and approval by IRB. In order to minimise risk of confidentiality breaches for participants, questionnaires were completed and submitted anonymously and no demographics or identifying information was requested to allow nurses to freely express themselves.

Sample and setting

A convenience sample of critical care nurses was selected. Critical care nurses who worked twelve hours, day or night shift were invited to participate in the research for a period of one month. The inclusion criteria consisted of nurses working full time in the critical care unit who agreed to participate in the study. Forty-seven critical care nurses answered the questionnaire. This study was conducted in a 452 beds Magnet hospital. All nursing and allied health staff follow the same infection control policies and procedures in this facility. They have received hand hygiene education including demonstrations, followed by evaluations and site observations.

Instrument

The questionnaire content was derived from a literature review identifying the most common barriers related to lack of compliance in hand hygiene in healthcare settings including environmental barriers and attitudinal beliefs (Chagpar et al., 2010). The questionnaire included 18 items assessing nurses' barriers to hand hygiene compliance in the critical care unit and two open-ended questions giving nurses the opportunity to explain the main problem they

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