

## ABSTRACT

Hand hygiene has been identified as one of the most effective ways of reducing the spread of infection. Research has demonstrated that hand hygiene compliance is low among nurses and other healthcare providers. This supports the need for better hand hygiene compliance as poor hand hygiene compliance has been correlated with healthcare-associated infections (HCAIs) and results in increased healthcare costs, longer duration of hospital stay, higher readmission rates, patient discomfort, and even patient death. The purpose of this master's project is to implement continual hand hygiene education on the Cardiovascular Intensive Care Unit (CVICU).

## PICO QUESTION

After proper hand hygiene education intervention, will nurses be more compliant than before education intervention?

## LITERATURE REVIEW

A literature review was conducted to gather information surrounding hand hygiene compliance among nurses. The literature demonstrated the significance of how hand hygiene can improve patient care. Furthermore, some causes of low hand hygiene compliance were identified.

Through a review of the literature three common themes were identified:

- **Patient safety:** In the United States, two million patients are affected by HCAIs and of the two million, 90,000 patients die <sup>(5)</sup>.
- **Nurse compliance:** Nurses' attitudes toward hand-hygiene have been revealed to be one of the largest contributing factors in their compliance <sup>(3)</sup>.
- **Educational intervention:** Over the years, there have been significant advances in hand hygiene practices, yet healthcare organizations continue to have difficulty maintaining optimal levels of hand hygiene compliance <sup>(2)</sup>.

# Improving Hand Hygiene in the Cardiovascular ICU: An Evidence-Based Education Program

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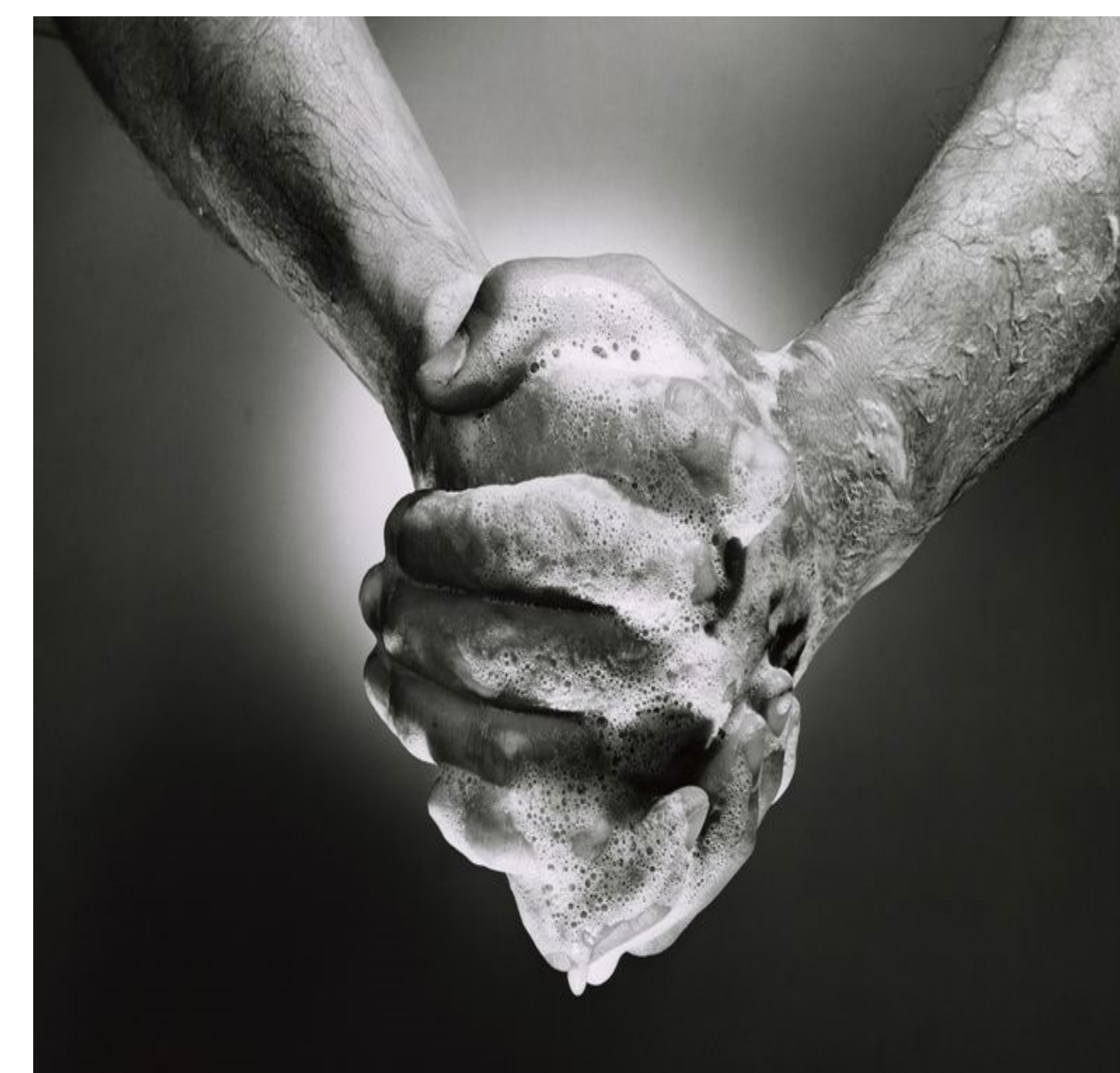
## PROJECT METHODOLOGY

Implementing an evidence-based education program on the Cardiovascular Intensive Care Unit (CVICU) at the University of Utah Hospital to improve hand hygiene compliance among nurses is the goal of the project. The project includes an inquiry of the problem of low hand hygiene compliance and patient safety, formation of the PICO question, and a comprehensive literature review of evidence-based practice.

The goal of implementing an evidence-based education program plan is to improve the hand hygiene education program on the CVICU will allow improvement and modifications to these barriers and improve hand hygiene compliance among the staff and improve patient outcomes.

### Improving hand hygiene project plan:

- Collaboration with CVICU management to begin implementation of an initial evidence-based education program.
- A pre-assessment and post-assessment survey for nurses for the hand hygiene program education.
- Administration will have the opportunity to conduct individual performance reviews with nurses to ensure continued adherence to hand hygiene protocol.
- Follow-up reminders in the form of bulletin board posters, reminder signs at hand washing and alcohol-based hand rubbing (ABHR) stations, and in-service training on hand hygiene education every other month during staff meetings will be completed.



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## THEORETICAL FRAMEWORK

The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Model supports the facilitation and design of a clinical problem and aids nurses in translating the best evidence for developing an evidence-based education program related to hand hygiene compliance in the Cardiovascular Intensive Care Unit (CVICU) at the University of Utah Hospital <sup>(4,6)</sup>

- The first step of the JHNEBP Model begins with an inquiry into best practice.
- Second step involves defining the practice problem. This is an important step and needs to be completed precisely because all of the following steps are developed from this practice problem.
- Third, is taking the constructed plan for implementation from the transition phase and implement it into best practices.
- Fourth, is modifying the best practices with practice improvements, which can be clinical, learning, and operational <sup>(4)</sup>.

## CONCLUSIONS

Nurses are practicing in an environment where continuing evidence-based practices are needed to ensure they are providing the best care to improve the patient's outcomes. Hand hygiene practices have been found through evidence-based research, to be one of the most effective ways to reduce the spread of infections. The objective of this master's project is to implement continual hand hygiene education on the CVICU to increase hand hygiene compliance among the nurses and staff. By implementing a continuing hand hygiene education program, gives CVICU the ability to monitor and improve hand hygiene compliance, which results in increased patient and staff safety with decreasing HCAIs <sup>(6,9)</sup>

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