

## Exploring ICU and Tele-ICU Nurses' Perceptions of Tele-ICU Practice: Opportunities, Challenges, and Recommendations for Implementation in Saudi Arabia

Ahmad Saifan

College of Nursing/ Yarmouk University, Jordan

### Abstract:

**Background:** Tele-ICU has emerged as a vital component of modern healthcare, enabling remote monitoring and management of critically ill patients. Even though its use is expanding internationally, there are still issues with acceptance, infrastructure, and training, especially in developing healthcare systems such as Saudi Arabia.

**Aim:** This study explores intensive care unit (ICU) and Tele-ICU nurses' perceptions of Tele-ICU practice in Saudi Arabia, focusing on their qualifications, experiences, and the challenges and opportunities of this evolving model of care.

**Study design:** A qualitative exploratory design was used. Semi-structured interviews were conducted with 22 ICU and Tele-ICU nurses working in a prominent healthcare network in Saudi Arabia. Thematic analysis was performed to identify key themes and subthemes related to Tele-ICU nursing practice.

**Results:** Participants highlighted several factors impacting Tele-ICU practice, including a lack of standardized training, technological challenges, and financial constraints. Despite these challenges, many participants viewed Tele-ICU as a less physically demanding alternative to bedside ICU nursing. They emphasized the need for formal Tele-ICU certifications, improved technological infrastructure, and organizational support. Concerns regarding role clarity, career progression, and legal accountability were also noted.

**Conclusions:** Nurses in Saudi Arabia demonstrated a variety of factors that could impact adopting Tele-ICU as a standard practice. Addressing gaps in training, infrastructure, and policy could improve its adoption and sustainability, ultimately benefiting patient outcomes and nurse satisfaction.

**Relevance to practice:** Tele-ICU offers significant potential to enhance critical care delivery in Saudi Arabia. However, it has several challenges and opportunities. Direct benefits are expected from implementing Tele-ICU, such as decreasing physical strains and increasing the chance for professional development and care quality. However, healthcare organizations should be aware of some drawbacks to maximize the advantages of Tele-ICU.

### Keywords:

Tele-ICU, critical care nursing, remote healthcare, nurse perceptions, Saudi Arabia.