Mobile apps and clinical decision making among nurse practitioners

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Background: In critical care settings, the ability to make quick evidence-based clinical decisions is considered paramount. Nurse practitioners (NP's) are at the frontline of primary and critical care and are expected to incorporate the "best evidence" as it builds confidence in decision making which leads to better patient care. **Problem:** Translation of evidence into practice is often difficult for NP's and hindered by time constraints, skills to access and review evidence, volume or level of research, lack of understanding on how to use evidence for decision making, and poor methods to facilitate delivery of evidence. **Significance:** Mobile communication devices such as smartphones and tablets can be used by NP's to provide timely access to evidence-based resources with minimal disruption to workload. It is of prime importance to assess the utility of mobile evidence retrieval applications and subsequently evaluate how research information is translated for decision making to improve patient care. **Purpose:** Therefore the purpose of this project was to compare two mobile evidence retrieval applications on decision making behaviors of NP's. **Methods:** This quality improvement project used an exploratory descriptive design and incorporated both quantitative and qualitative evaluation methods. A pilot group of nine NP's from a Critical Care unit in a large university hospital volunteered to participate. Two different evidence retrieval applications, developed and supported by the National Library of Medicine, were available on tablets which included the EBP Infobot (patient focused) and the Clinical Question Answering (population focused) search tools. Data were collected through daily survey assessments, application use audits, and focus groups to determine utilization, usefulness, and behavioral outcomes. **Results**: Findings indicated the patient-specific app was utilized more frequently than the population based application. Participants reported the main reasons for using the applications were to explore interventions/treatments (55.6%) and for provider education (33.3%). The majority indicated no change in decision making (85%) with 15% indicating the information did prompt them to change a course of treatment. NP's also reported the applications were used during rounds, were good for finding information on rare cases, and accessing articles. Some thought too much data needed entered to get results, not useful for experienced nurse since they have own search methods and recommended a more simple interface. **Conclusions:** Overall, the apps provided educational resources at the point of care, confirmation of knowledge and may be useful for novice practitioners. More research is needed to explore the utility of these applications