The Use of Mobile laptops among Health Care Professionals in the Clinical Setting

Prepared by: Shroog AlZahrani. Supervised by: Dr. Basema Saddik.
King Saud bin Abdulaziz University for Health Sciences. Collage of Public Health & Health Informatics

Introduction and Background:

- Information technology is essential for enhancing the efficacy and reliability of healthcare provision and handheld computing technology is considered a key component for the future of integrated information management systems. (1)
- The use of mobile laptops and handheld devices has increased rapidly to facilitate access and retrieve clinical information at the point of care in health care. (1)
- (Chatterjee et. at., 2008) defines mobile (movable) work as ‘the usage of mobile technologies in varying degrees to accomplish tasks, across locational, temporal, and contextual boundaries’. (2) Mobile work allows the use of information and resources that are often distributed within the hospitals’ system and includes information concerned with patient diagnosis, treatment, and overall care. (3, 4)
- The rapid development of mobile information and communication technologies has led to significant improvements in the healthcare area, which have been likely to improve patients care and provide a number of benefits to organizations, such as connectivity, interactivity, flexibility and capabilities. They have also been found to improve decision making among health care professionals. (1, 2, 3, 4, 5)

Methodology:

This study was an exploratory research study (self reported cross-sectional design).

Study setting:
National Guard Hospital Affairs in Dammam (NGHA-D).

Sample size:
75 physicians out of 91 physicians using mobile laptops in their daily work.

Data collection:
Self reported questionnaire, which was designed to measure the impact of using mobile laptops among physicians on clinical decision making including patient diagnosis, test ordering and treatment plan.

Data Analysis:
Data were coded and analyzed using the Statistical Package for Social Science (SPSS v 17.0). Descriptive statistics on categorical data were presented as frequency and percentages. While, Kruskal-Wallis and the Mann-Whitney tests were used to examine the differences between physicians’ perceptions on the impact of using mobile laptops. The level of significance was set at (P < .05).

Results:

This study showed:
The majority of respondents agreed that using mobile laptops during their daily work facilitated the diagnosis process of patients, helped them avoid unnecessary medical tests and improved their patient’s treatment.

Research Question:

This study attempts to answer the research question: “Does the use of mobile laptops influence the professionals’ patient care decision making process including patient diagnosis, test ordering and treatment plan at the point of care”?

Results:

The majority of the physicians in the study were male, young, staff physicians and most of them worked in Internal medicine, surgery and Emergency room departments.

Conclusion:

Mobile laptops offer increasing support to physicians in their daily clinical activity and have an increasing potential for future use. This study provides significant information on the impact of mobile laptops on clinical decision making and patient care, and also the physicians’ perceptions on how it helps them alter treatment, diagnosis and test ordering choices in a positive manner.

References: