Chapter 17
Users' Satisfaction With the Electronic Health Record (EHR) in the Kingdom of Bahrain

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ABSTRACT

Today, many hospitals seek to adopt the latest and most sophisticated technologies in order to raise the service quality and users' satisfaction. The Electronic Health Record (EHR) had a substantial impact on the health sector and has enhanced the efficiency and effectiveness of healthcare providers. The purpose of this research is to examine the factors that affect users' satisfaction with the current Health Record System in the Kingdom of Bahrain. A research model was built based on three popular models of users' satisfaction toward information systems. Toward achieving the research objective, a quantitative approach was followed to collect data from an online survey. Accordingly, 152 responses were collected from the users of EHR in public hospitals and health centres in Bahrain. The results of the survey were analyzed using SPSS and SmartPLS 3.0. It was concluded that the most effective factors in the users' satisfaction with EHR were directly service quality and technical support, with system and information quality indirectly through trust.

INTRODUCTION

Government and health institutes in different countries seek to improve the quality of their healthcare using the latest technologies, and systems that can serve all the medical staff in hospitals. One of these systems is the Electronic Health Record (EHR), which is an integrated system used in hospitals by doctors and medical staff; it collects, controls and manages patients' complete health information (Paul and Lansky, 2005). Using these systems can reduce time and cost, increase the efficiency of performance, improve the quality of healthcare services provided for patients, and ensure access to medical information and exchange of experiences (Nassiliou, 2009). The Kingdom of Bahrain followed this trend by applying this system in their hospitals. The most important ICT project at present is the National Health Information System (I-Seha) that provides high quality and efficient health services, making health information available and accessible to healthcare providers' and easing their workload (MOH, 2015).

To ensure that the system's services are appropriate to the different users, it is important to examine their level of satisfaction and the factors that affect their satisfaction; this not only measures the success of the system but also indicates whether any additional technical support or financial incentives are required. This is the topic of this research.

ELECTRONIC HEALTH RECORD

The Healthcare Information and Management Systems Society (HIMSS) (2012) defines EHR as longitudinal electronic record of patient health information produced by encounters in one or more care settings. Included in this information are patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. The EHR automates and streamlines the clinician's workflow. The EHR has the ability to independently generate a complete record of a clinical patient encounter, as well as supporting other care-related activities such as decision support, quality management, and clinical reporting.

The Healthcare Financial Management Association (HFMA) (2006), on the other hand, focuses more widely on the functions of an Electronic Health Record, stating for example that EHR enables the process of order-entry management, such as medication ordering. It can effectively give the medical staff access to all patients' information. It can store the patients' health records in databases, facilitate administrative processes such as billing, scheduling and resource management, provide effective electronic exchange of patient data and develop decision-support systems. EHR itself provides many benefits, supporting decision making, reducing expenditure and costs, minimizing the time spent on many processes, and providing comprehensive information for doctors to facilitate medical diagnosis (Lorenzi, Kouroubali, Detmer and Bloomrosen, 2009). It also enables healthcare providers to deal more easily with patient's records, sharing the information with other hospitals, healthcare providers, nursing homes and specialists from outside the hospital whenever it is required (HealthIT, 2015). In addition, any changes or modifications that occur to patients' recorded information are updated automatically and made available to all other healthcare providers. Tracing the progress of patients' health is important in order to provide them with appropriate treatment. It also speeds up the large number of tasks that physicians and nurses are responsible for; at the same time, the patients can coordinate and manage much of their own health

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