

## Chapter 7

# The Effects of Electronic Medical Record (EMR) Use in Primary Care on the Physician–Patient Relationship

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### ABSTRACT

*The implications of the physician-patient relationship and communication on healthcare quality have been widely discussed in previous research. Communication has been characterized as one of the most powerful, encompassing, and versatile instruments available to the physician, and it has been suggested that good physician-patient communication can improve healthcare outcomes. The incorporation of ICT in healthcare and, more specifically, the introduction of EMRs in primary care provide an opportunity for improving healthcare services and quality of care. Healthcare ICT has without a doubt transformed the dynamics of the medical encounter. Implications of EMRs on the physician-patient communication, and thus on healthcare quality have not yet reached a full understanding. The authors suggest a research model based on theoretical frameworks derived from the IS and medicine disciplines, describing factors affecting appropriate use of EMR, which will lead to physician and patient satisfaction.*

### INTRODUCTION

The goal of this chapter is to examine the effects of Electronic Medical Records (EMR) use on the relationship between physician and patient in primary care. We explore the role of the physician-

patient relationship in patient care and how this relationship is affected by the introduction of Information and Communication Technology (ICT) in the clinic as manifested by the EMR use by the physician. While it may appear that ICT provides an opportunity to improve patient-physician com-

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munication as part of the clinical practice, and hence clinical outcomes, it is surprising to find that there is scant literature on the direct effects of ICT on the physician-patient relationship (Pearce et al., 2009). This existing gap is particularly unsettling since communication has been characterized as one of the most powerful, encompassing, and versatile instruments available to the physician (Engel, 1988, 1989). As will be shown in this chapter, several studies suggest that good communication can improve healthcare outcomes from better treatment adherence and fewer interactions leading to malpractice suits (Frankel et al., 2005).

We explore the effects of Electronic Medical Records' (EMR) introduction in the clinic on the physician-patient relationship by looking into different aspects such as technology adoption and use, benefits and shortcomings of EMR use, and physical aspects such as exam room configuration and eye contact. Regarding both aspects, we seek to show the benefits and shortcomings of EMR use and their influence on the physician-patient relationship (See Figure 1). Finally, we develop a model of factors affecting the utilization of computers in the exam room based on theoretical frameworks from the information systems (IS) field, which focus on user IS adoption, long term acceptance, task-technology fit and user satisfaction.

This chapter attempts to extend the current understanding of physician-patient relationship within a computerized environment. We believe that the application of IS theoretical frameworks into healthcare IS can imply what needs to be done in order to minimize current obstacles of IS utilization in healthcare while improving the physician-patient relationship in a computerized environment.

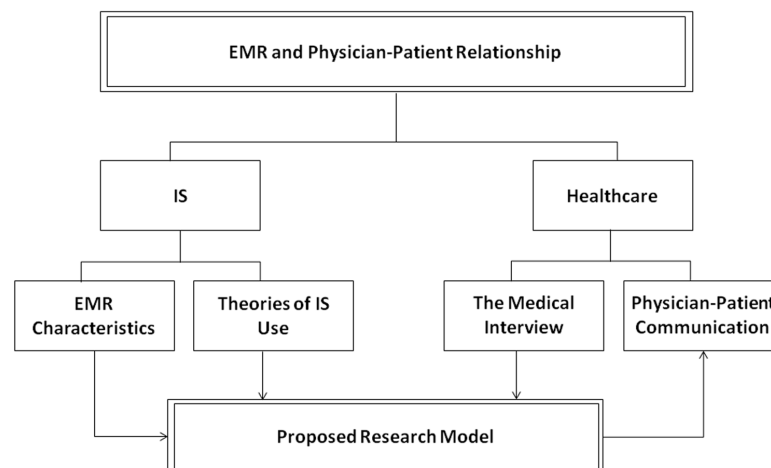
## BACKGROUND

The following section provides an overview of the physician-patient relationship and imperative role of communication in healthcare which have been recognized prior to the introduction of Information Communication Technology (ICT). Namely, we discuss elements of patient centered care, physicians' communication behavior and functions of the medical interview.

### Physician-Patient Communication and Patient Centered Care

Primary medical care requires effective physician-patient communication (Mead et al., 2002). Thousands of medical interactions have been studied to elucidate the key 'ingredients' of good consulta-

*Figure 1. Chapter schema*



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