Chapter III

Understanding Physician Use of Online Systems: An Empirical Assessment of an Electronic Disability Evaluation System

Thomas A. Horan
Claremont Graduate University, USA

Bengisu Tulu
Claremont Graduate University, USA

Brian N. Hilton
Claremont Graduate University, USA

Abstract

This chapter develops a conceptual model for physician acceptance and tests this socio-work structure model using a nationwide survey of physicians (n = 141). The domain focus of this study is physician acceptance of online disability evaluation systems for generating and
managing medical examination reports. The survey measured whether behavioral intention to use the new system varied as a function of IT infrastructure, organizational readiness relating to IT, physician experience with computer use in clinical settings, and both specific and general attitudes toward online system use in clinical settings. Survey findings suggest that each of these factors affects behavioral intent to use online disability evaluation systems and that these factors are more important than generalized attitudes toward online systems or socio-demographic predictors. Findings suggest that work-practice variables are important when considering physicians use of online systems. The chapter concludes with a discussion of implications for devising advanced testing systems that can be used to ensure active physician participation in medical informatics systems.

Introduction

The use of computers for information management and decision support in the medical field dates back to early mainframe use in large hospital settings (e.g., PROMIS; Westberg & Miller, 1999). In today’s world, managed care has created a flood of information for hospitals and medical practices in which patients see many different medical practitioners during the course of medical treatment. As a result, storage of information regarding a patient becomes distributed and requires access by many different stakeholders at any given time. In the disability evaluation environment, there are myriad histories, assessments, treatments, and correspondences, the management of which places the physician in the role of “information manager.” A major source of this complexity is that these activities often employ different terminology to describe the same functional characteristics of the disability in question (Demeter, Andersson, & Smith, 1996). For instance, a treatment-oriented assessment may use one terminology while a financially-oriented legal assessment uses a very different terminology. Additional complexities arise when physicians need to spend valuable time attempting to clarify these translations as a precursor to their own assessment. As a result, disparate and often insufficient data are collected along with attendant but unnecessary paperwork. These inefficiencies occur especially in the medical evidence collection phase. Indeed, the process of gathering the necessary medical evidence to render a legal judgment can