

Chapter 22

ICTs, E–Health, and Multidisciplinary Healthcare Teams: Promises and Challenges

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ABSTRACT

This paper explores the role ICTs play in the multidisciplinary teams (MDTMs) in healthcare settings. The discussion addresses benefits and challenges of ICTs along with implications for MDTMs. For example, clarification between electronic health records (EHRs) and electronic medical records (EMRs) along with their impact on privacy was made. The paper offers certain suggestions on overcoming some of the challenges identified. Retchin's (2008) framework for inter-professional and co-managed care was presented. The framework focuses on how information communication technologies can impact overall patient health care and delivery.

INTRODUCTION AND BACKGROUND

Information Communication Technologies (ICTs) have made e-health a reality. E-health allows for storage, dissemination, and exchange of health information among consumers, providers, government and other institutions (Dominguez-Mayo, et al., 2015; Olaniran, 2015). One of the advantages of ICTs has been its potential to increase productivity and effectiveness while reducing costs in organizations. It is from this standpoint that e-health, facilitated by ICTs, is especially applicable to physicians and non-physician health providers who collaborate across disciplinary lines (Scholl & Olaniran, 2013; Wright, Sparks, & O'Hair, 2008). As such, e-health and increase use of ICTs in healthcare is gaining ground for coordinating patients' caregiving. Central to this paper is the need to explore the impacts of ICTs on interdisciplinary healthcare groups and teams. For instance, Health Informatics – which address the use

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of technology for information dissemination or ICTs in telemedicine and healthcare practices are a few of the tools helping to support multidisciplinary teams (MTDMs).

Healthcare MTDMs consist of different caregivers who collaborate or coordinate their expertise in providing patients the necessary care. To accomplish this goal, team members must be able to communicate with one another, have realistic goals and expectations for coordinating group interaction, know how to resolve conflict, and make successful decisions (Cooley, 1994; Lefley, 1998; Scholl & Olaniran, 2013; Wright et al., 2008). Notwithstanding, interdisciplinary team members often fail to communicate effectively (Scholl & Olaniran, 2013; Thomas, Sexton, & Helmreich, 2003; Wright et al., 2008). For instance, minor disagreements can escalate and at times lead to staff turnover and litigation (van Servellen, 2009). While the goal in this paper is to explore ICT usage in MTDMs, the paper will also address some factors impacting e-health use and adoption (e.g., privacy) as they relates to MTDMs.

ICTS AND THE PROMISES OF MULTIDISCIPLINARY HEALTHCARE TEAMS

Multidisciplinary care is referred to as an integrated team approach to healthcare, where relevant health care professionals evaluate treatment options and jointly develop a treatment plan for patients (Robertson, Li, O'Hara, & Hansen, 2010; Salerno, 2015; Scholl & Olaniran, 2013). For example, multidisciplinary teams can include surgeons, nutritionists, radiologists, pathologists, oncologists and social workers along with general practitioners or primary care physicians. Therefore, hospital physicians, and nurses may provide healthcare services either through office or home visits in collaboration with other healthcare providers including general practitioners with the aid of ICTs. ICTs facilitate the transfer of recorded data back to hospital environment (Salerno, 2015). Thus, ICTs represent the tools for increasing cooperation between different health professions across different settings and institutions, which in a way helps foster the active/interactive role by patients, caregivers and other entities in caregiving (Scholl & Olaniran, 2013; Stellato et al., 2015a, 2015b).

With ICTs, the delivery of healthcare from a range of professionals and other specialists allows for exchange of information between different experts, agencies and institutions in co-located (same location or hospital) or non-co-located (different geographic boundaries) environments. Thus, ICTs offer a way to meet the call for coordinating patient care in efficient and effective manners (Dwivedi, Bali, James, Naguib, & Johnston, 2002; Robertson, et al., 2010; Salerno, 2015). Furthermore, healthcare is now commonly practiced in a widely distributed environment and organizational network where patients and clinical data are sent back and forth between general practitioners and specialists in order to enable up-to-date care (at the right time and place). Similarly, the fact that individuals are living longer and often suffer chronic ailments that need to be closely monitored by several practitioners located in different places (Salerno, 2015; Stellato et al., 2015a; Winthereik & Vikkelso, 2005) makes ICTs and e-health ideal, such that e-health or mobile health (i.e., mHealth) are seen as a way to deliver accessible and effective health care (e.g., Price et al., 2015).

An important achievement in e-health and health care in general is the fact that ICTs enable the digitization of medical records otherwise known as electronic medical records (EMRs). With EMRs is electronic health records (EHRs). Although often used synonymously, there is a distinction based on location of the record. For instance, EMR is located in the computer and with the assumption that it is under direct security control of the patient's medical practitioner. Whereas, EHRs are more centrally located (e.g., cloud) and who has control is often unclear (e.g., physicians, patients, government etc.) (see

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