Chapter 32
ICT Use and Multidisciplinary Healthcare Teams in the Age of E–Health

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ABSTRACT

This paper explores ICTs in the medical field specifically in the Multidisciplinary teams (MDTMs) in healthcare settings. The discussion offers benefits and disadvantages of ICTs along with implications for teams' communication and interaction. The paper also provides a few formidable challenges facing MTDMs while offering suggestions on how to overcome them in an attempt to fully experience and utilize technologies in an effective manner. Finally the paper presents areas for future research given the fact that ICT use in MTDMs will only continue to grow as e-health becomes the norm in patients care and healthcare delivery. In an attempt to accomplish these goals, Retchin's (2008) conceptual framework for inter-professional and co-managed care will be used. Retchin's framework considers the impact of temporality, urgency of care, and structure of authority. Specifically, this framework focuses on how information communication technologies can impact overall patient health care and delivery. In conclusion, the author provides guidelines and recommendations for how physicians and other health practitioners can use technologies to work with each other are provided.

INTRODUCTION AND BACKGROUND

Information Communication Technologies (ICTs) have become prevalent in every aspect of human lives. The manifestation of computer-mediated communication (CMC), Internet and computer support collaborative work (CSCW) in organizations, e-learning, and virtual collaborations has been well documented over the past two decades (Olaniran, 2007). One of the advantages of ICTs has been in the potential to increase productivity and effectiveness while reducing costs in organizations. ICT use is especially applicable to physicians and non-physician health providers who collaborate across disciplinary lines (Scholl & Olaniran, 2013; Wright, Sparks, & O'Hair, 2008). The use of ICTs in healthcare delivery is

gaining ground as a way to coordinate caregiving for patients. Central to this paper is the need to explore the impacts of ICTs on interdisciplinary healthcare groups and teams. For instance, Health Informatics – which addresses the use of technology for information dissemination or ICTs in telemedicine and healthcare practices are a few of the tools helping to support multidisciplinary teams to provide integrated care. Germane to the interdisciplinary healthcare team approach is how providers target multiple issues in order to maximize ICT benefits and health outcomes. 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). Therefore, the focus of this paper is to address and evaluate ICT usage in multidisciplinary or collaborative care giving. Specifically, the aim is to explore how different professional or specialists use ICTs to collaborate in healthcare delivery to patients.

ICTS AND MULTIDISCIPLINARY HEALTHCARE TEAMS

Multidisciplinary care is defined as an integrated team approach to healthcare, where relevant health care professionals evaluate treatment options and jointly develop treatment plan for patients (Robertson, Li, O'Hara, & Hansen, 2010; Salerno, 2015; Scholl & Olaniran, 2013). The contribution of various individuals who exist within different locations makes the collaboration among different specialists possible and is often referred to as multidisciplinary team (MDTM) and integrated care. For example, multidisciplinary teams for cancer treatment can consist of surgeons, nutritionists, radiologists, pathologists, oncologists and social workers along with general practitioners. In other words, hospitals, physicians, and Nurses provide healthcare services either through office or home visits in collaboration with other healthcare providers including general practitioners with the aid of ICTs. These technologies allow for 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 help 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 professions and disciplinary 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 giving 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). In comparison to previous periods, it is a fact that nowadays; individuals live longer and often suffer chronic ailments that need to be closely monitored by several practitioners that are located in different places (Salerno, 2015; Stellato et al., 2015a; Winthereik & Vikkelso, 2005). The dispersion of caregivers and the duration of patient care necessitate Computer Supported Cooperative Work (CSCW) which is facilitated by ICTs.

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