Chapter 9

Telemedicine and Telehealth:
Academics Engaging the Community in a Call to Action

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ABSTRACT

Despite identifying the importance of telemedicine and telehealth education in scholarly environments, researchers rarely explore the dynamics of taking some of this learning to the community to engage in prevention. Medical professionals are consistently receiving education to enhance their knowledge, skills, and capabilities. Telemedicine and Telehealth have a new role in the community and is akin to house calls from the past. Engaged in this text is the action for medical professionals, government officials, and civic leaders to work together to move prevention health study to the community. This movement promotes the sharing of knowledge and understanding between the scholarly world and the communities they serve. The researcher concludes with the discussion of the responsibility required in the learning process at all levels. This text will provide a guideline for such an engaged and shared approach to healthcare prevention, as well as implications for future research and practice.

INTRODUCTION

Telemedicine is a groundbreaking method of bridging the health care delivery gap by expanding access to services for medically underserved communities (Bashshur et al., 2014). Telehealth is a propelling force for speaking to existing challenges in the healthcare environment and enhancing the quality of healthcare effectively. Telemedicine and Telehealth has been promoted as a disruptive innovative (Grady, 2014) approach to bridging the health care delivery gap by increasing access to services for medically underserved communities. Other terms associated with telemedicine and telehealth include but are not limited to telecare, telenursing, online health, eHealth, connected health (Cason, 2014; Maheu, Whitten, & Allen, 2002) or virtual care (West & Mehrotra, 2016). For the purpose of this text, telemedicine and telehealth are used interchangeably, although they do have slightly different definitions.

Civic responsibility connects healthcare to the community, working with the community to solve the problem. Healthcare in the United States is encountering an upsetting predicament (World Health Organization, 2012). Such predicament includes a change in thought from the traditional provider-centered, disease-oriented methodology to a patient-centered, health management model (Bauer & Ringel, 2009; Haughton, 2000; Sacristán, 2013; Truog, 2012). According to World Health Organization, through this shift in thought patterns, the data shows an extraordinary void of valuable resources (World Health Organization [WHO], 2012, The World Health Report). The void continues to be a contrasting force not in support of the commencement of positive occurrences in healthcare, and the associated research, and expansions. Craig, Eby, and Whittington, (2011), posits that such forces include but are not limited to overpriced generic, medical, technological, and pharmaceutical progress. In determining a path to engaged scholarship and civic responsibility, the researcher provides analysis that contributes to the literature mentioned in addition to the data that is generally discussed. The text is divided into five sections that will be separately reviewed, and then blended to show how scholarship and community can work together for the common good.

BACKGROUND

Telemedicine refers to medical data transmitted between sites through electronic communications to enhance patients' health status (Ajami & Lamoochi, 2014; American Telemedicine Association [ATA], 2015; Majerowicz & Tracy, 2010; Mokdad, Marks, Stroup, & Gerberding, 2004). Another way to refer to telemedicine is that telemedicine refers to the remote delivery of medical care. Telemedicine is the use of electronic information and communications technologies (ICT) to provide clinical services when participants are at different locations. Telemedicine does not represent a separate medical specialty; rather it is a tool that can be used by health providers to extend the traditional practice of medicine outside the walls of the typical medical practice (Bashshur & Shannon, 2009). Telehealth is a term used to encompass a broader application of technologies to distance education, consumer outreach, and other applications wherein ICT are used to support healthcare services. Physicians to physicians and physicians to patience have communicated over distance using technology since the early 1900s (Bashshur & Shannon, 2009). Current technological progress and a shifting health care landscape have altered telemedicine from a novelty into a flourishing industry.

The business of treating patients via telehealth in the U.S. will dramatically increase to nearly $2 billion in revenue within five years from $240 million today, an annual growth rate of 56 percent as reported in Forbes (Jaspen, 2013). To date, there are over 200 telemedicine programs in hospitals in the U. S. with at least one telehealth program and those hospitals that do not use telemedicine are already behind the leaders in health care delivery (ATA, 2014) and are losing market share or paying fines due to 30-day hospital admissions (Centers for Medicare and Medicaid Services [CMS], 2014). Traditional models center on videoconferencing, telephone, and email. These modalities remain relevant, but the field has rapidly added capabilities and indications (Di Cerbo, Morales-Medina, Palmieri, & Iannitti, 2015). Examples include videoconferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education and nursing call centers are all considered part of telemedicine and telehealth. Telemedicine includes diagnostics, treatment, monitoring, consultation, and education among other domains. Figure 1 show Telemedicine Typology and Figure 2 Telehealth Typology. Telemedicine encompasses different types of programs and services provided for

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