Chapter 27
Efficacy of Telemedicine in Psychiatry and Mental Health Nursing

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ABSTRACT

Adoption and implementation of telecommunication services which allow psychiatric services to be delivered have increased availability of care to patients in remote areas. Past studies have suggested that telepsychiatry services are comparable to traditional face-to-face services; and patients typically considered telepsychiatry an acceptable alternative. The purpose of this research was to examine and describe the efficacy of psychiatric care delivered via telemedicine (telepsychiatry) to determine whether telepsychiatry could improve outcomes for patients. Seven electronic databases were utilized with a total of 22 articles that were referenced as a basis for this literature review. The findings suggest telepsychiatry is an effective alternative compared to traditional methods. Future research should include controlled experiments that compare telepsychiatry to face-to-face psychiatry and incorporate newer technologies into the research.

INTRODUCTION

The adoption of telemedicine technologies used for delivering psychiatric treatments has been slower than in some areas of conventional medicine, however its use in this arena is making gains; an evidence-based treatment in which therapists can record psychotherapy sessions and make them available to patients through mobile devices and allow patients to review the sessions later (Luxton, et al., 2011). Treatment compliance can be improved by apps that record and date-stamp treatment homework review, track therapy appointments, and send patients or providers alerts related to treatment needs or crisis management

(Luxton, et al., 2011). It can clearly be seen that there have been successful and useful implementations of telepsychiatry with alleviating problems of workforce shortage and lack of facilities in underserved areas. Some findings also suggested that mental health services delivered using telepsychiatry were comparable to services delivered face-to-face, and there was no evidence that such services caused harm to psychiatric patients (Krupinski et al., 2002; Saeed et al., 2011). But, in order to truly implement this, mental health care providers need to know if the outcomes are comparable. Therefore, the purpose of this research was to examine and describe the efficacy of psychiatric care delivered via telemedicine (telepsychiatry) by conducting a literature review of the past research and uses of telepsychiatry. That is, this research will strive to answer the question, "Does telespychiatry equivalently or to a better extent fill the gaps in lack of availability in mental health care services?" Consequently, this research was also useful in determining whether telepsychiatry could improve outcome measures for mental healthcare patients.

BACKGROUND

Telepsychiatry, the provision of psychiatric care to remotely located clients and electronic exchange of mental health care information across distances, has the potential to revolutionize patient care (Norman, 2006). There are two major problems area that telepsychiatry can improve. One is access to mental health services where patients have difficulty due to lack of appropriate facilities such as rural, urban (Hilty, Luo, Morache, Marcelo & Nesbitt, 2002). Secondly, numerous literature sources suggest that telepsychiatry has the potential to alleviate health care workforce shortages in remote and underserved locations (Antonacci, Bloch, Saeed, Yildrim & Talley, 2008; Grigsby, et al., 2002; Krupinski, et al., 2002; Saeed, Diamond & Bloch, 2011).

According to the National Institute of Mental Health (2008) in the Strategic Objective 3 of the 'Strategic Plan,' it is important that adaptive designs which include patient preference be applied to psychosocial and biomedical intervention research. The strategy also aimed to adopt novel approaches in research models that identify new brain-behavior-environment research objectives that center on the functioning of the individual(s) as a whole. Telepsychiatric services were shown not only to be acceptable, but also even preferred by some mental health patients (Krupinski, et al., 2002; Saeed, et al., 2011).

With new developments in information and communication technologies, many online and mobile applications (apps) are now available to support mental health, including a wide spectrum of electronic interventions (e-spectrum), which have the potential to expand and enhance the scope of patient-centered mental health care interventions. One of the earliest examples of such e-therapies was an internet-based program called MoodGym, an online cognitive behavioral therapy approach designed to help people identify symptoms of depression and teach them coping skills (Rickwood, 2012). Since then we have seen many other technological advances. For example, the use of smartphones have seen dramatic growth: in 2008, only 10% of mobile phone usage in the U.S. occurred via smartphones, but by the end of 2010, the iPhone alone accounted for 55% of the mobile internet traffic in the country. Such devices have revealed numerous opportunities for using mobile apps for a variety of behavioral healthcare tasks (i.e., monitoring symptoms, treatment progress and compliance) (Luxton, McCann, Bush, Mishkind & Reger, 2011; Shepard, Rahmati, Tossell, Zhong, & Kortum, 2010).

Along with mobile applications, there have been other technological advances that have enhanced mental healthcare through telemedicine. According to Deslich, Stec, Tomblin & Coustasse (2013), highly interactive audiovisual teleconferencing systems – such as the unified communications systems

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