Telepsychiatry Use in Rural Areas in the United States:
A Literature Review of the Benefits

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ABSTRACT

Rural areas have experienced a higher than average shortage of healthcare professionals. Numerous challenges have limited access to mental health services. Some of these barriers have included transportation, number of providers, poverty, and lack of insurance. Recently, the utilization of telepsychiatry has increased in rural areas. The purpose of this review was to identify and coalesce the benefits of telepsychiatry for adults living in rural communities in the United States to determine if telepsychiatry has improved access and quality of care. The methodology for this study was a literature review that followed a systematic approach. References and sources were written in English and were taken from studies in the United States between 2004 and 2018 to keep this review current. Fifty-nine references were selected from five databases. It was found that several studies supported that telepsychiatry has improved access and quality of care available in rural environments. At the same time, telepsychiatry in mental healthcare has not been utilized as it should in rural adult populations due to lack of access, an overall shortage of providers, and poor distribution of psychiatrists. There are numerous benefits to implementing telepsychiatry in rural areas. While there are still barriers that prevent widespread utilization, telepsychiatry can improve mental health outcomes by linking rural patients to high-quality mental healthcare services that follow evidence-based care and best practices. Telepsychiatry utilization in rural areas in the United States has demonstrated to have a significant ability to transform mental health care delivery and clinician productivity. As technology continues to advance access, telepsychiatry will also advance, making access more readily available.

KEYWORDS

Access, Quality, Rural Communities, Telehealth, Telepsychiatry

INTRODUCTION

In 2016, about 60 million individuals, or 19.3% percent, of the United States (U.S.) population lived in rural areas (USCB, 2016). Also, according to the U.S. Census Bureau, a rural area, is any population, housing, or territory not defined as an urbanized area or urbanized cluster. An urbanized area contains 50,000 or more individuals, and an urban cluster has at least 2,500 but less than 50,000 people (USCB, 2016).

Rural areas have experienced higher than average healthcare workforce shortages, which have limited access to healthcare services (RHIhub, 2014). To illustrate, less than 10 percent of physicians have practiced in rural areas, although 20 percent of the U.S. population is located in rural communities (Stanford School of Medicine, 2010). Also, geographic constraints have been a challenge. Residents have traveled considerably to access different and often limited services, and some patients reported a substantial burden on time and money (Smalley et al., 2012). Also, the lack of public transportation, distance, hazardous weather conditions, and environmental issues have been among other challenges exacerbated in this environment (Eberhardt, Pamuk, 2004).

For urban and rural areas, the incidence and prevalence of most behavioral disorders have been comparable (Hecke, 2012). A study conducted in 2014 found no significant difference in incidence or prevalence for major depression or severe mental illness (SMI) in large metropolitan and rural areas (Breslau et al., 2014). Furthermore, a 5.6 percent prevalence of major depression and SMI was found in large metropolitan areas while a 6 percent prevalence of major depression and SMI was found in rural areas. Also, rural areas have had limited availability for mental health services (NHRA, 2017); (Douhit et al., 2015). As of June 2018, 53.1 percent of the mental health provider's shortage areas were in non-metropolitan areas (HRSA, 2018). Thus, rural residents were less likely to receive treatment (Eberhardt, Pamuk, 2004). This fact has led to healthcare disparities between rural and urban residents (NRHA, 2017).

A lack of providers, in addition to other challenges, has led to many states developing behavioral health aide's models (Hecke, 2012). Alternatively, telehealth has been utilized. Varying definitions, policies, and regulations across states surround how telehealth has been used (CCHP, 2017). Telehealth, also known as telemedicine, has used technology to deliver healthcare services and clinical information through telecommunications technology (HRSA, 2013); (ATA, 2016); (AHRQ, 2016).

Telehealth has involved direct, electronic patient-to-provider interactions, in addition to medical devices that have transmitted and collected health information: medical devices included, but have not been limited to smartphone applications, activity trackers, automated reminders, and blood glucose monitors (ONC, 2017). Video conferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications technologies have also been utilized to expand access to healthcare services (HRSA, 2015). Tele-behavioral health, also known as telepsychiatry, can be provided in nursing homes, clinics, schools, and other localized community settings (HRSA, 2013) As of 2016, 65 percent of hospitals in the U.S. have used or implemented telehealth.

The purpose of this review was to identify and coalesce the benefits of telepsychiatry for adults living in rural communities in the United States to determine if telepsychiatry has improved access and quality of care.

METHODOLOGY

The literature review followed the research framework modified from (Yao et al., 2010) This framework shows the process of utilizing telepsychiatry in rural areas, followed by the adoption and its application; when the benefits and barriers were evaluated and recognized the cycle continues (Figure 1). This research framework is appropriate to this study as both the adopted and the original frameworks have been used for the implementation of health information technology. Also, its successful use in prior

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