Telepsychiatry

Eman Salem Al-Awabdeh

Correspondence:
Eman Salem Al-Awabdeh, RN, MSN
Master in Psychiatric and Mental Health Nursing
The Royal Medical Services College
Amman
Jordan
Email: eawabdeh@gmail.com

Introduction

According to the World Health Organization (WHO) in 2011, mental health is a state of well-being in which every person recognizes his or her own possibility, can overcome the normal stresses of life, can act productively and profitably and is able to make a contribution to her or his own community. While, mental illness has become a significant worldwide health issue in recent years; more than 450 million people suffer from mental disorders (WHO, 2010).

Although no health without mental health becomes a theme nowadays, the availability of specialists is limited for psychiatric patients in remote areas, especially during psychiatric emergencies. Furthermore, there is an extreme shortage of mental health professionals in low-income countries (approximately one psychiatrist per two million people and one psychiatric nurse per 200,000 people), which make the mental health interventions and care not implemented simply by specialists (Ventevogel, Jordan, Reis, & Jong, 2013).

In Jordan, exact numbers of human resources for mental health are unknown for both the public and private sectors. However, WHO estimates that in 2010 there were 1.09 psychiatrists, 0.54 other medical doctors (not specialized in psychiatry), 3.95 nurses (both associated and registered nurses, not specialized in mental health), 0.27 psychologists, 0.3 social workers, and 0.09 per 100,000 inhabitants.

Today telepsychiatry is one of the most popular applications for telemedicine through videoconferencing (Cash, 2011). It is the providing of health care and the exchange of information to provide psychiatric services across distances through any form of electronic media (Wootton, Yellowlees, & McLaren, 2003). Mental health services via videoconferencing tele-mental health has become an increasingly routine component of mental health service delivery throughout the world.

The purpose of the current paper is to examine and evaluate the effectiveness of telepsychiatry by real-time videoconferences (VC).

Literature review

Mental health care through telepsychiatry becomes more accessible and affordable for those who are at present out of direct reach of such services, whether that is because they are bed limited, phobic or paranoid, school and college students, living in a remote area, or even in prison (Wootton, Yellowlees, & McLaren, 2003; Deslich, Stec, Tomblin, & Coustasse, 2013).

Deslich, Thistlethwaite, and Coustasse (2013) in their study found that telepsychiatry improved access to mental health services for inmates, which help the continuum of mental health care, and increase quality of that care. Furthermore, telepsychiatry, by real-time videoconferences (VC), is supposed to provide advanced advisory services and educational initiatives to areas with lack of psychiatrists (Trondsen, Bolle, Stensland, & Tjora, 2012).

Lizana and Mayorga (2010) in their systematic review which was conducted to evaluate the effectiveness of videoconferencing in mental illness interventions demonstrated that there is a strong hypothesis that videoconference-based treatment obtains the same results as face-to-face therapy, and that telepsychiatry is a beneficial alternative when face-to-face therapy is not possible. Moreover, many studies provided positive results for telepsychiatry outcomes which include: Quality of life, patient satisfaction, and treatment adherence. But, in order to implement such technologies there is a need for adequate resources, especially financial, administrative support, and policy support (Mair et al., 2012).
Quality of Care

Bee et al. (2008) in their systematic review found that remote therapy (telepsychiatry) has the chance to overcome some of the barriers of the traditional psychiatric therapy services. The researchers demonstrated that the available evidence for telepsychiatry quantity and quality of care is limited and the traditional wisdom still (indicates) however that psychiatric therapy should be delivered face-to-face. While, in another systematic review, the researchers found that 21 (58%) of the studies found outcomes were not significantly different (Wade, Karnon, Elshaug, & Hiller, 2012).

Wynchank and Fortuin (2010) in their study elucidated that comparisons between VC versus face-to-face intervention show similar success rates for cognitive behaviour therapy and psychotropic medication administration. Moreover, the researchers explained that telepsychiatry is favored in compliance for both the medication plan and follow-up appointments. Further, telepsychiatry has been shown to be effective in maintaining quality of care across several different populations (Deslich, Stec, Tomblin, & Coustasse, 2013).

Several factors make the assessment and treatment of psychosis particularly well suited for VC. First, as psychotic patients are often hospitalized, VC permits patients to be connected with their specialists without need for travel. Second, assessment and treatment using VC is also a potential solution for patients with psychosis living in remote or underserved areas where there is a shortage of specialists (Sharp, Kobak, & Osman, 2011). Over and above, it reduces significantly the time of patients in hospitals, without decreasing the continuous monitoring of patients. Moreover, it facilitates the interaction between patient and doctor through using web application (Alcala, Munoz & Fierro, 2013).

Cost of Telepsychiatry

In order to discuss telepsychiatry’s cost, it is necessary to take into consideration which technology types are used. The author means that technologies vary in their cost (for example videoconferencing versus telephone).

Wade, Karnon, Elshaug, and Hiller (2012) in their systematic review found that 22 (61%) of the studies found telehealth to be less costly than the non-telehealth alternative, 11 (31%) found greater costs and 3 (9%) gave the same or mixed results. Moreover, Deslich, Thistlethwaite, and Coustasse (2013) in their review to determine the cost of providing mental health care in correctional facilities; found that use of telepsychiatry saved correctional facilities from $12,000 to more than $1 million.

Telepsychiatry is comparable to conventional treatment in outcomes, and it is time and cost savings, since less-to-no travelling is required (Alcala, Munoz & Fierro, 2013; Wynchank & Fortuin, 2010; Deslich, Stec, Tomblin, and Coustasse, 2013; Richardson, Frueh, Grubaugh, Egede, & Elhai, 2009).

Interestingly, Doolittle, Spaulding, and Williams (2011) in their longitudinal study demonstrated that utilization of telepsychiatry led to a 40 percent reduction in costs, further, Spaulding et al. (2010) in their cross-sectional study found that utilization of telepsychiatry led to a 70 percent reduction in costs.

Satisfaction and Acceptance

Most patients of all ages, from children to geriatrics, gave telepsychiatry high levels of satisfaction (Wynchank & Fortuin, 2010; Sharp, Kobak, & Osman, 2011; Trondsen, Bolle, Stensland, & Tjora, 2012). Due to its acceptance, school systems have begun to use counseling services for school-aged children while they are on their school’s campus. It has been predestined that around 15 percent of school-aged children experience some mental illness and would benefit from psychiatric services (Deslich, Stec, Tomblin, & Coustasse, 2013).

Moreover, many inmates seem to prefer this form of treatment because of increased access to the psychiatrist, and they experienced greater access to care because practitioners and clinical staff involved in patient care have been able to use the same videoconferencing capabilities to coordinate the care. Additionally, they are satisfied with telepsychiatry treatment for services including: Initial treatment evaluation, consulting, medication management, and psychotherapy (Deslich, Thistlethwaite, Coustasse (2013).

An important point is, when the wait time for the patients is decreased in the emergency departments, they will become more satisfied with such services and vice versa.

Stone, Rogers, Kruckenberg, and Lieser, (2012) in their study found that the average wait time for adult patients with a primary psychiatric diagnosis in the emergency department, once the decision to admit was made until placement into an inpatient psychiatric bed or transfer to an appropriate level of care, was 10.05 hours. Also the average wait time for pediatric patients with a primary psychiatric diagnosis was 12.97 hours, which is definitely decreased by telepsychiatry.

Supplementarily, patients reported a high level of satisfaction and willingness to use telepsychiatry and they recommended it to others. Patients preferred telepsychiatry through their mother tongue, rather than interpreter-assisted care (Mucic, 2010).

Telepsychiatry in Jordan

Unfortunately, there are no studies regarding this topic in Jordan. After searching in the Ministry of Health hospitals, the Royal Medical Services hospital (Marka), and the private hospital (Al Rashid), there seems to be no telepsychiatry in Jordan. As discussed previously, there...
e is a shortage in mental health professionals (physicians and psychiatric nurses). In Jordan, mental health situation is not better than its neighbors.

There are just four mental hospitals; two of the hospitals are operated by the Ministry of Health (National Center for Mental Health and Karama), one is a Royal Medical Services hospital, and one is a private hospital (Ali Rashid), and they are located in the capital (Amman). Furthermore, there are two outpatient clinics at the Royal Medical Services and one at Jordan University, and only 3 (5%) outpatient facilities are for children and adolescents (WHO, 2011).

Additionally, human resources are unevenly distributed, as a large proportion of mental health professionals work in mental hospitals near the capital city, where only 36% of the population live (WHO, 2011). Regrettably, in the 1980s, the Royal Medical Services had a psychiatric inpatient unit within the general hospital. However it was later removed and a small psychiatric hospital with 43 beds was built instead. So for now, and based upon the facts that there are no psychiatric wards within the hospitals, lack of community centers, and shortage in health care providers, telepsychiatry appear to be potentially effective if implemented in Jordan.

**Discussion**

The initial use of telemedicine was first documented in the late 1959 at the Nebraska Psychiatric Institute, when a Nebraska psychiatrist connected to a prison over 150 miles away using closed circuit television to provide mental health services to the prisoners (Whitten, Holtz, & LaPlante, 2010). At that time, telemedicine was separated into two divisions: Synchronous (psychiatrist visits were performed in real-time crossing a geographic distance by using a system of cameras, televisions and videoconferencing technology) and asynchronous (patient images or data can be recorded at one point in time and viewed by a specialist at another time and location). It means that telehealth can be carried out synchronously (real-time), where the participants react with each other simultaneously, and asynchronously (store-and-forward), in which data such as X-rays or photographs are collected, transmitted, and then utilized at a later time (Wade, Karnon, Elshaug, & Hiller, 2012).

Telepsychiatry technologies vary including, but not limited to, telephone, e-mail, remote-access technology, and real-time videoconferencing (Cash, 2011; Deslich, Stec, Tomblin, & Coustasse, 2013). Telepsychiatry is continuing to grow due to the expansion of broadband infrastructures and the reduction of technology costs. Furthermore, telepsychiatry has been successfully used for patients with posttraumatic stress disorder, depression, panic disorder and/or agoraphobia, Alzheimer’s disease, schizophrenia, and other mental-health conditions (Alcala, Munoz & Fierro, 2013).

**Benefits of Telepsychiatry**

It becomes obvious that telepsychiatry is useful for patients who are living in isolated or rural areas with a shortage of psychiatrists or other mental health professionals, and the use of VC has led to a reduction in the need for patients and professionals to travel, and a reduction in hospitalizations. Telepsychiatry is more beneficial than traditional therapy (face-to-face sessions) when dealing with patients prone to violence or who are afraid of leaving home for treatment, so therapy is performed in the comfort of home and it promotes family interaction with the patient (Alcala, Munoz & Fierro, 2013). Moreover, these applications have increased the patients’ access to treatment, heighten patients’ satisfaction, save time and decrease patients’ travel needs, and when patients are satisfied with their level of care, they are more susceptible to follow treatment procedures and acquire good care. (Trondsen, Bolle, Stensland & Tjora, 2012).

Boydell, Volpe, and Pignatiello (2010) found that videoconferencing alleviated the patients’ anxieties regarding their encounter with a psychiatrist. Further, a benefit of emergency telepsychiatry is that it increases provider safety when assessing potentially dangerous patients (Shore, Hilty, & Yellowlees, 2007). Interestingly, telepsychiatry can be used for training in clinical supervision; educating the patient, family and health care providers and under- and postgraduate student instruction.

Another possible advantage results from the excluding effects of videoconferencing, which can offer a sense of security and encourage honesty, particularly for schizophrenic and agoraphobic patients; these effects might be due to the fact that videoconferencing is regarded as being less threatening than personal contact, and such patients feel they can leave at any time, with little or no guilt (Wynchank & Fortuin, 2010).

A significant benefit of telepsychiatry is giving patients who were previously unable to be treated a meaning of freedom, confidence, and understanding of their psychiatric condition, also, because technology has become more affordable in society today versus a decade ago, the majority of patients are able to connect to their physician by using their own equipment at home (Deslich, Stec, Tomblin, & Coustasse, 2013). Additionally, it decreases wait time in the emergency department (Stone, Rogers, Kruckenberg, and Lieser, 2012).

**Constraints of Telepsychiatry**

All ability to evaluate the patient and intervene has been lost, for example: ability to smell, see and touch (telephone), ability to smell, see, hear and touch (e-mail), ability to smell or touch the patient (real time videoconferencing), and the technology makes a less intimate interaction (Cash, 2011). Further, the use of the telephone or internet will eliminate many behaviors like eye contact, physical expression, posture, physical presence and touch which lead to the
inability to get information the therapist can usually get through these behaviors, and moreover there is little or no contact between therapist and client (Bee et al., 2008).

It creates an impersonal atmosphere, unsuitable for elderly patients with sensory impairments, for treating uncooperative or paranoid patients, and in emergency situations. Telepsychiatry does not have a collaborative online environment to support exchange of formal and informal information (Alcala, Munoz & Fierro, 2013). Additionally, several barriers to telepsychiatry in emergency care exist, such as: Regulatory, financial and cultural (Trondsen, Bolle, Stensland, & Tjora, 2012).

An important point is that hallmark symptoms including hallucinations, suspiciousness, and delusions of reference would lead patients to reject speaking with someone on a television screen (Sharp, Kobak, & Osman, 2011).

The primary concerns identified by patients were generally related to poor picture or audio quality (Mucic, 2010). Based on a comprehensive review of the literature, persons with psychosis react negatively to VC or experience exacerbations of symptoms, like patients with specific delusions involving television or of being monitored (Sharp, Kobak, & Osman, 2011).

Many patients may have difficulty in expressing feelings to a screen therapist. Occasionally, technical problems may affect the frequency of sessions. Such factors can affect the rate of progress, and consequently it can take longer to complete treatment for new referrals managed by telepsychiatry (Wade, Karnon, Elshaug, & Hiller, 2012).

Other potential limitations of telepsychiatry may be encountered when promoting independence in place of dependence, preserving privacy and confidentiality of patient information, obtaining informed consent and ensuring equity of access. However, these issues do not reduce significantly from telepsychiatry’s overall success (Wynchank & Fortuin, 2010). Moreover, professional resistance to new technologies, implementing and embedding new technologies of any kind involves complex processes of change at the micro level for professionals and patients and at the meso level for health-care organizations themselves (Mair et al., 2012).

Other potential limitations of telepsychiatry may be encountered when promoting independence in place of dependence, preserving privacy and confidentiality of patient information, obtaining informed consent and ensuring equity of access. However, these issues do not reduce significantly from telepsychiatry’s overall success (Wynchank & Fortuin, 2010). Moreover, professional resistance to new technologies, implementing and embedding new technologies of any kind involves complex processes of change at the micro level for professionals and patients and at the meso level for health-care organizations themselves (Mair et al., 2012).

Many patients may have difficulty in expressing feelings to a screen therapist. Occasionally, technical problems may affect the frequency of sessions. Such factors can affect the rate of progress, and consequently it can take longer to complete treatment for new referrals managed by telepsychiatry (Wade, Karnon, Elshaug, & Hiller, 2012).

Recommendations for Telepsychiatry

The first step in any telepsychiatry effort is the planning, which means determining what services will be given, to whom they will be given, and the technology used to offer them. Moreover, it is necessary to carefully evaluate whether a particular form of telepsychiatry is appropriate for a given patient, both at the beginning of the treatment relationship and periodically as treatment progresses. Health care providers should be aware of the importance of the location of the patient, both for legal and clinical considerations (Cash, 2011).

In emergency situations, the first step in developing a telepsychiatry service is to assess availability of resources to deal with psychiatric emergencies at the patient sites, including health services (outpatient, inpatient, police, other), and the parties’ expertise in handling such an emergency psychiatric situation (Shore, Hilty, & Yellowlees, 2007).

There are also legal issues, requiring clinicians to conduct a site assessment to obtain information on local regulations and emergency resources requiring clinicians to be familiar with local civil commitment regulations and have arrangements in place with local staff to initiate and assist in this regard (Sharp, Kobak, & Osman, 2011).

Summary

The purpose of this paper was to examine and evaluate the effectiveness of telepsychiatry by real-time videoconferences (VC). It is a useful alternative when face-to-face therapy is not possible and it becomes clear that telepsychiatry seems to be used more as technology continues to grow in healthcare. Unfortunately, in Jordan, mental health is still ignored by the government and the Ministry of Health. The author like many health providers hopes for this trend to be reversed and more attention to be given to this present problem.

References


Acknowledgement

Special thanks and deep appreciation to my husband Dr. Feras Alzboun for his support.


