2015

The Effect of e-Mental Health Services on Saudi General Mental Health

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28th Bled eConference

#eWellBeing

June 7 - 10, 2015; Bled, Slovenia

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Abstract

Mental Health is a state of wellbeing that plays a key role in affecting the quality of life of an individual. However, globally the level of treatment and focus it receives in terms of funding and priority as a healthcare issue differs significantly. More recently mental health in Saudi Arabia has begun to receive better attention from authorities and researchers. In particular, e-mental health services and solutions are growing rapidly and are showing promise to facilitate mental health services and delivery by providing better access, and early intervention and treatment for people with mental illness. This study has been designed to assist the current mental health services in Saudi Arabia and focuses on e-mental health, which is both timely and important. In the last decade Australia has become one of the leading countries in providing e-mental health services. The research-in-progress outlined in this paper introduces possibilities and challenges in transforming the e-mental health services of Australia to the Saudi Arabian healthcare context.

Keywords: E-mental health, Saudi Arabian healthcare, Wellbeing, Social Network, Mobile health, Australian healthcare.

Introduction

Wellbeing is defined as a state of being with others, which emerges where human needs are met, where one can act meaningfully to pursue one's goals, and where one can enjoy a satisfactory quality of life (McGregor, 2008). To enjoy a satisfactory quality of life is directly related to mental health status. Mental health is defined as "state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2014). Looking at the definitions of wellbeing and mental health, good mental health status is a key factor of wellbeing. Therefore, mental health services have to be available, easy to access, and affordable for people in need.

In the last decade, technologies, such as the Internet and smartphones, are growing in popularity for mental health services and delivery (Lal & Adair, 2014). These technologies can assist mental health providers and governments to facilitate their mental health services by improving efficiency, accessibility and the opportunities for early intervention and treatment for many people with different mental illnesses (Christensen & Hickie, 2010; Christensen et al., 2009; e-Mental Health Alliance, 2014; Jorm, Morgan, & Malhi, 2013). They can also improve the barriers to treatments such as the stigma associated with visiting psychology clinics and poor mental health literacy, geography in general (Burns, Davenport, Durkin, Luscombe, & Hickie, 2010), and gender segregation, spiritual or religious beliefs in Saudi Arabia specifically (Alkabba, Hussein, Albar, Bahnassy, & Qadi, 2012; Christensen & Petrie, 2013b; Hammad, Kysia, Rabah, Hassoun, & Connelly, 1999; Koenig et al., 2014).

Recently, the mental health sector in Saudi Arabia has started receiving attention from Saudi authorities and mental health providers to develop a strategic plan to facilitate this sector and improve the mental health wellbeing in Saudi Arabia (Al-Habeeb & Qureshi, 2010; Koenig et al., 2014). However, there are a number of barriers to mental health services and treatment, which can be specific for that region such as religious healing practices, gender segregation, social and legal aspects (al-Shahri, 2002; Hammad et al., 1999; Koenig et al., 2014). Although Saudi Arabia has invested billions of dollars to improve the quality and the delivery of e-health in the last ten years (Altuwaijri, 2010), less focus has been given to e-mental health. This is a key void and one this paper sets out to address.

The emphasis of this research-in-progress design will be on assisting the current state of the mental health sector of Saudi Arabia, and how e-mental health services can better the mental health services and reduce the barriers that affect mental health services and delivery in Saudi Arabia. The Australian e-mental health services programme was chosen to be the case study to assist with the investigation. The research question guiding this study is: How are e-mental health services implemented to facilitate the current mental health in Saudi Arabia?

Background

To better investigate the expected effect of e-mental health services on Saudi mental health services and delivery, it is necessary to understand the Saudi Arabian culture. Islam shapes the culture, social, health practice and politics in Saudi Arabia (Al-Saggaf, 2004; Koenig et al., 2014). This is because Islam is not only a religious ideology, but a complete system that offers detailed prescriptions for the entire way of life (Al-Saggaf, 2004; Aldraehim, Edwards, Watson, & Chan, 2012; AlMunajjed, 1997). Therefore, the Saudi health system is strongly grounded in religion and culture, which needs to be taken into consideration when examining and treating patients and planning health services (Koenig et al., 2014). In mental health for instance, religious healing practice, sex segregation, or women's legal and social aspects are the main factors that might be barriers to treatments, such as affecting mental health services access or decreasing the mental health literacy (Al-Saggaf, 2004; al-Shahri, 2002; Koenig & Al Shohaib, 2014; Koenig et al., 2014). These factors will be discussed later in this paper

Recently, the mental health sector in Saudi Arabia is undergoing a large transformation and new policies and acts have been applied by the Saudi authorities to improve mental health services and deliveries (Koenig et al., 2014; Qureshi, Al-Habeeb, & Koenig, 2013).

This section provides an overview of the mental health sector in Saudi Arabia and the related aspects to that country. Finally, a brief introduction of e-mental health services and their benefits and disadvantages is presented.

1.1 Saudi Mental Health Sector

Recently, the mental health sector has started to gain attention from Saudi authorities; to improve accessibility to mental health services and treatments as well as implanting better mental health policy and procedure (Almalki, Fitzgerald, & Clark, 2011), the recent milestone developments are shown in Table 1.

Year	Development	References
2006	National mental health policy Special mental health programmes in the general medical system	(Koenig et al., 2014)
2007	1st Saudi Arabian Mental and Social Health Atlas	(Al-Habeeb & Qureshi, 2010)
2010	2nd Saudi Arabian Mental and Social Health Atlas	(Koenig et al., 2014)

Table 1: Recent mental health development milestone in Saudi Arabia

Between 2006 and 2012, the Ministry of Health (MoH) reported that the total number of outpatients seeking mental health services at public hospitals increased by 59.4% (from 310,848 to 495,484 cases), and the total number of inpatients increased by 12.9% (Moh, 2011, 2012). Moh (2012) used the International Classification of Diseases (ICD-10) to identify disease groups and reported the following in 2012:

- 48.93% of the total number of visitors to mental health clinics were women

- 53.19% were between the age of 15-40
- Depression 35%
- Anxiety 36%

Saudi Mental Health Factors

Besides the common barriers to mental health services and treatments such as stigma, location, therapist availability and geographic location (e-Mental Health Alliance, 2014; Gulliver, Griffiths, & Christensen, 2010; Lal & Adair, 2014), religious faith healing beliefs, sex segregation and/or a number of women's legal and social aspects are some of the factors that have been found that may impact mental health service access or delivery (Al-Saggaf, 2004; al-Shahri, 2002; Koenig & Al Shohaib, 2014; Koenig et al., 2014; Saleh, 2014). Table 2 illustrates these factors.

Factor	**Deception**
Religious Faith Healing	Koenig and Al Shohaib (2014) argue there is a positive impact of religious faith healing on a person's wellbeing and improves their hope and self-esteem and provides a sense of belonging. However, this practice can delay diagnosis and treatment for serious mental illness, and can increase the criticism that these delays may lead to increased anxiety and guilt in the patient (Koenig & Al Shohaib, 2014).
Sex Segregation	Islam implies sex segregation, which means that women are prohibited to mix with unrelated men and this applies to the work environment, education, and hospitals (Al-Saggaf, 2004). Usually men demand a female doctor to examine their female relatives, or a female will refuse to be seen by a male doctor (al-Shahri, 2002). As a result, mental health treatment may be affected.
Women's Legal and Social aspects	Divorce has a direct impact on Saudi women's mental health wellbeing and Saudi Arabia has the highest divorce rate among the Gulf Cooperation Council countries (35%) and is also above the world average rate of 22% (Saleh, 2014). Because women in Saudi Arabia are not permitted to drive and there is insufficient public transport (Alghamdi & Beloff, 2014), the access to mental health services for these women might become a challenge.

Table 2: Factors that may impact mental health service access in Saudi Arabia

The negative impact of these factors are some of the barriers to mental health access and treatment in Saudi Arabia and as mentioned, the number of people seeking mental health attention is increasing, which can be a challenge that mental health providers may face in the future. Therefore, the need for e-solutions that will facilitate the mental health sector is required. E-mental health services indicate significant outcomes to improve the barriers that affect traditional mental health services.

E-mental Health

E-mental health is defined as providing treatment and/or support to people with different mental disorders through sensible technologies (as seen in Table 3) (Anthony, Nagel, & Goss, 2010; Christensen & Petrie, 2013b; e-Mental Health Alliance, 2014; Whittaker et al., 2012). E-mental health services have the ability to improve accessibility, reduce cost, provide flexibility, and better consumer interactivity and engagement (Lal & Adair, 2014). Some of the tools are shown in Table 3.

E-mental Health tools
• Short Message Service (SMS) • Email • Website/apps • Chat or instant messaging (IM) tools • Social Media • Video/Audio via the Internet • Smart phones • Tablets

Table 3: Tools that are used in mental health services

E-mental health services have the ability to overcome issues existing in the current mental health sector; however, there disadvantages of using e-mental health. Table 4 shows these benefits and disadvantages of e-mental health.

Benefits	**Disadvantages**
• Improve lack of access due to location, time or financial difficulties (Booth et al., 2004) • Reduce stigma incurred by seeing a therapist (Burns et al., 2010; Christensen & Hickie, 2010) • Improve mental health literacy • Improve the therapist's time and efficacy (Jorm et al., 2013; Jorm, Wright, & Morgan, 2007).	• Lack of quality control (Lal & Adair, 2014) • Limited only for people with low to moderate mental illnesses (Lal & Adair, 2014) • Limited to people who are familiar with using technology (Lal & Adair, 2014)

Table 4: E-mental health benfists and disadvatages

One of the countries considered a leader in e-mental health services is Australia, which will be introduced later in this paper.

Method and research design

E-mental health in Saudi Arabia has not been previously explored and it lacks defined characteristics. As such, an exploratory qualitative research method is the most suitable method and a single case study will be used (Yin, 2008). At this stage of the research, the answer to the research question of "How are e-mental health services implemented to facilitate the current mental health in Saudi Arabia?" will be examined and explored.

Creswell (2013) argues that the use of case study as a tool of investigation is found in many fields, which allows the research to develop an in-depth analysis of a field. According to Stake (1995) there are three types of case study research: intrinsic, instrumental, and collective case studies. To gain more insight and knowledge into this research topic, an instrumental case study has been chosen.

In general, case study methodology is not strictly planned but researchers are guided by what they see in the field, given a planned field study with specific steps for data collection and analysis (Fidel, 1984). This flexibility provides researchers with the ability to deal with unexpected events and results. However, to reduce risks that might appear during data collection and analysis of this research, a framework developed by Eisenhardt (1989) will be employed. This framework involves the following eight steps:

Getting started

In this step, after reviewing and outlining the literature, the research question will be developed and defined. A priori constructs will be examined for further measuring. At this stage of the research, the research question is developed and the related literatures are articulated.

Selecting the case study

The Australian mental health services programme has been selected as the single case study that will be examined against Saudi Arabia's mental health sector.

1.1.1 E-mental Health in Australia

In the last decade Australia has become one of the leading countries in providing e-mental health services along with Sweden and the Netherlands. Furthermore, 50% of the recent publications in e-mental health are Australian resources (Christensen & Petrie, 2013a). These services target young people in Australia using Internet technologies (Australian Government, 2012). The majority of e-mental health programs target depression, anxiety and suicidal thoughts. There are five types of e-mental health services in Australia as shown in Table 1.

Number	Mental health services type	Example
1	Health promotion, wellness promotion and psycho-education	Beyondblue www.beyondblue.org.au
2	Prevention and early intervention	Kids Helpline www.kidshelp.com.au MoodGYM moodgym.anu.edu.au
3	Crisis intervention and suicide prevention	Lifeline www.lifeline.org.au
4	Treatment	myCompass www.mycompass.org.au/
5	Recovery and mutual peer support	BlueBoard www.blueboard.anu.edu.au

Table 5: Australian mental health services types

Crafting the instrument and Protocols

Observation and document review is the main method adopted to collect data for this research. Observation is a fundamental and highly important method in all qualitative inquiry (Yin, 2008). Because Australian mental health services are online (e-Mental Health Alliance, 2014), observation and document review will be the most stable method at this stage of the research. Tools, such as Nvivo and MS Visio, will be used to facilitate this stage of the research to explore the relationships and identify differences

in both contexts. Some of the aspects that will be observed and taken into consideration include the culture and how the role of e-mental health will be different in a Saudi Arabian context.

Entering the Field

This step can behave as a data collection and the initial data analysis sub-process. In this stage, the data will be collected. Data collection and analysis overlap, and research can go back and forth until the main theory emerges.

Data Analysis

The case study approach allows the researcher to move back and forth between the data collection and analysis, and it will continue until the main theory starts to develop. The data is analysed by using within-case analysis (Yin, 2008). The data collected will be inspected for common characteristics that represent categories or themes (Boyatzis, 1998). For instance, the important data or information collected will be divided into categories that will later involve a group of sub-categories after more in-depth analysis occurs.

Hypotheses formulation

The relationship between the sub-categories will be validated and the categories will be refined. Most likely in this stage, all findings will be considered and the overall theory can be shaped and tested. The relationships and findings will be verified among the unique and specific constructs and aspects identified; for instance, culture and language. Some of the expected hypotheses will be introduced in the discussion section of this paper.

Enfolding literature

In this stage, the findings will be compared with similar and conflicting literature. Inspecting literature that conflicts with the findings will support the confidence in the research result and will represent an opportunity (Eisenhardt, 1989). " The result can be deeper insight into both the emergent theory and the conflicting literature, as well as sharpening of the limits to generalization of the focal research"(Eisenhardt, 1989, p. 538).

Recommendation

Based on the outcomes of the data analysis, findings and the literature, a recommendation will be proposed.

Discussion

This research-in-progress aims to explore what Saudi Arabia is able to adapt from Australian e-mental health services. This will be done through observing and analysing the current status of mental health services in Saudi Arabia and examining the cultural

similarity and differences between Saudi Arabia and Australia. E-mental health services will assist in overcoming cultural and religious barriers to access mental health services or treatment.

Islamic faith healing practices influence the mental health of individuals either in a positive or negative way. Mental health professionals cannot ignore these practices. The outcome of using e-mental services is to increase the practitioners' awareness of the importance of religious faith healing and their patients' mental health and it might provide a common ground between the practitioners and their patients, or perhaps ease the integration of Islamic beliefs and practices into the psychology treatment model. Abdel-Khalek (2009); Thomas and Ashraf (2011) cite that using spiritually modified cognitive therapies have a significant influence in decreasing symptoms in Saudi people with depression.

In addition, by reviewing previous studies conducted on e-mental health's benefits and potentials (Christensen & Hickie, 2010; Christensen & Petrie, 2013b; e-Mental Health Alliance, 2014; Jorm et al., 2013; Lal & Adair, 2014), it is believed that e-mental health services can be used as a strategic tool to improve mental health literacy to facilitate early intervention for mental disorders and as a cost effective tool to increase awareness among patients, their families, and religious faith healers to reduce any delays in treatment for clinical mental illness.

Gender is "a critical determinant of health, including mental health. It influences the power and control men and women have over the determinants of their mental health, including their socioeconomic position, roles, rank and social status, access to resources and treatment in society" (Astbury, 2001, p. 4). Furthermore, depression is the most diagnosed mental illness globally and it is found in women more than men (Piccinelli & Wilkinson, 2000). In Saudi Arabia, 50.19% of visitors to psychiatric clinics were women (Moh, 2011).

Sex segregation was almost not existent in Saudi online communities and e-services (Al-Saggaf, 2004; Alghamdi & Beloff, 2014). Furthermore, direct communication and interaction between the two genders in Saudi Arabia has improved since internet technologies were introduced (Madini & de Nooy, 2014). The benefits of e-mental health services will assist in eliminating sex segregation, which will allow some mental health services to be available to everyone at the same time.

One of the benefits that has been profoundly improved by e-mental health is accessibility (Lal & Adair, 2014). In Saudi Arabia, women are not permitted to drive and by going online, they do not need to drive to access mental health services. Studies show that women in Saudi Arabia who have sought online help and joined online social networks to help them overcome mental distresses associated with divorce, such as loneliness and social stigma has increased their self-esteem and reduced depression and anxiety (Saleh, 2014).

An important element that has to be measured and explored in future research is the user acceptance of using e-mental health in Saudi Arabia.

Conclusion

This research-in-progress aims to investigate how e-mental health services can facilitate mental health services in Saudi Arabia and how these services can impact mental health wellbeing for Saudi people. Further, it also looks into the possibilities and challenges of transferring lessons from the Australian context into the Saudi Arabian healthcare context. E-mental health services have the potential to improve the current state of mental health in Saudi Arabia, and to reduce the barriers that affect mental health services and delivery for this country.

This investigation will motivate researchers and mental health providers to conduct research and analysis that seeks to enhance healthcare and health results, and support the introduction of an e-mental health vision in Saudi Arabia. Furthermore, the research will also contribute to e-health practices in Saudi Arabia as well as support policy development associated with e-mental health. This paper outlined the initial theory and conceptual framework for this research. The next steps include data collection and analysis in the chosen case study. In this way, a fuller appreciation of the impact of e-mental health on facilitating and supporting wellbeing will become evident.

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