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Telemental Health Services during COVID-19 Outbreak in Saudi Arabia

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ABSTRACT
COVID-19, which was declared a pandemic by WHO, brings up many problems. Telemental health comes as a solution to mental problems that are difficult to deal with because of social and physical distancing policies. This study aims to describe the telemental health services in Saudi Arabia during the COVID-19 outbreak. This paper outlines the general approach Saudi Arabia has taken in delivering public mental health services. It describes several key areas of work: medical staff, COVID-19 patients and their families, and individuals who feel anxious due to COVID-19. A description of the program that Saudi Arabia has produced is described, which targeted various groups with various methods. The program from Saudi Arabia may assist in informing public mental health services during COVID-19 or other crises that other government agencies could consider adopting. There is limited published information on this topic in Saudi Arabia. This paper gives a piece of detailed information on mental health services during the COVID-19 outbreak.

INTRODUCTION

The World Health Organization (WHO) declared Coronavirus Disease 2019 (COVID-19) as a pandemic on March 11, 2020. Since the first case was detected in Wuhan last December, the COVID-19 outbreak has caused a lot of losses. Data from WHO as of November 4, 2023, states that COVID-19 has infected more than 700 million people, with almost 7 million of them dead (World Health Organization, 2023).

This makes most people anxious, not just because they are afraid of being infected by the virus but also because of various other stressors faced at the same time. Limited social interaction, waves of layoffs, and uncertainty about the end of the pandemic are stressors that are no less alarming than the virus itself.

As well known, to suppress the spread of COVID-19, many countries implement lockdown or social/physical distancing policies. This policy forces people to remain at home so that they lose face-to-face interaction and traditional social interventions. This also causes stress (Zhang et al., 2020). Although there are many communication media available now, face-to-face interaction remains irreplaceable.

On the other hand, implementing lockdown policies forces businessmen to lay off their employees to cut expenses. The International Labour Organization (ILO) predicts that 25 million jobs could be lost worldwide due to COVID-19 (International Labour Organization, 2020). In Spain, the last economic recession in 2008 caused people to lose their jobs, and it made them experience mental problems such as stress, hopelessness, and feeling useless (Farré et al., 2018).

Furthermore, the uncertain end of the COVID-19 pandemic also played a role in influencing the psychological condition of the people. Until now, experts cannot estimate the end of Covid-19 except with various estimates. This further confirms the uncertainty of this pandemic. Dar *et al.* reveal that uncertainty in controlling or managing disease and its level of risk is one of the most stressful conditions for people (Dar et al., 2017).

In each stressful situation, whether due to disaster, pandemic, the terror of fear, or uncertainty, various psychological problems such as anxiety, depression, and stress often arise (Dar et al., 2017; Xiang et al., 2020). These psychological problems can affect anyone, both medical staff, infected victims and their families, and even the community in general (Kang et al., 2020).

The situation can be exacerbated by the news that often appears both in electronic and online media. Fake news (hoaxes) that often appear on social media can cause panic, hatred, and even racism (Kadam & Atre, 2020). Not only fake news but precise and accurate news also has the potential to cause panic if wrongly perceived by the public (Freiling et al., 2023).

This panic will lead to egoism, such as panic buying, capitalist behavior, xenophobia, and the tendency to trust every news on social media (Nicomedes & Avila, 2020). Panic buying behavior during the COVID-19 pandemic was found worldwide, such as in the United States, China, India and Pakistan (Islam et al., 2021). This will have a worse impact, such as chaos and food and medical supplies disruption.

If these mental problems are not addressed, the worst effect is that individuals can commit suicide. A systematic review study revealed that there were 12,746 suicidal attempts and 33,345 suicidal deaths (Pathirathna et al., 2022). Risk factors for suicide and/or suicidal attempts during the COVID-19 pandemic included the impact on mental health caused by social distancing, quarantine measures, and financial crises resulting from unemployment.

However, with lockdown policies and social/physical distancing implemented in many countries, mental health services become a dilemmatic problem. On the one hand, the community needs these services, but on the other hand, the risk of spreading the coronavirus is even greater.

In dealing with these limitations, some health practitioners provide long-distance services, called telemental health or online mental health. Telehealth utilizes information communication technologies to facilitate the exchange of information for diagnosing and treating diseases and injuries, research and evaluation, and educating healthcare professionals. This enables the delivery of healthcare services, even when patients and providers are geographically separated (World Health Organization, 2016).

Telemental Health refers to utilizing information and communication technologies, such as videoconferencing, for remote mental health care delivery, encompassing assessments, medication supervision, and psychotherapy (Waugh et al., 2015). By relying on technological sophistication and internet access that tends to be evenly distributed in various places, telemental health comes up as a solution to the difficulty of accessing mental health services during the COVID-19 pandemic.

Saudi Arabia announced the first case of coronavirus on March 2, 2020 (Ministry of Health Kingdom of Saudi Arabia, 2020). As of November 2, 2023, based on data released by WHO, the total number of confirmed positive cases of COVID-19 in Saudi Arabia reached 841,469 cases, with 9,646 dead. To prevent psychological problems due to COVID-19, as explained above, the Ministry of Health of Saudi Arabia provides telemental health services for the people. This study aims to describe the telemental health services in Saudi Arabia during the COVID-19 pandemic.

DISCUSSION

The government's strategy

The use of technology to provide mental health services is widely used throughout the world (Zhou et al., 2020). Moreover, counseling services cannot be provided directly (face-to-face) because of the lockdown and social/physical distancing policies applied in Saudi Arabia (Alrashed et al., 2020).

Advances in technology make it easier for psychologists and psychiatrists to provide mental health services. Now, people can easily access these services online with an effectiveness that is no less good than the conservative (face-to-face) method (Zhou et al., 2020).

This is pretty much different from the SARS pandemic in 2003. The limited mental health services at that time made mental health problems as the second disaster after the virus itself. Previous studies reported that 10%-35% of SARS survivors had anxiety, depression, or both a month after being discharged from the hospital (K. K. Wu et al., 2005). Another study reported that the occurrence rate of post-recovery probable post-traumatic stress disorder (PTSD) among individuals who survived SARS was 28%. In comparison, the occurrence rate of probable depressive disorder and PTSD among healthcare workers after SARS was 12% and 11%, respectively (Chau et al., 2021).

Mental health problems do not only occur shortly after the outbreak ends but last for years. Wu *et al.* (P. Wu et al., 2009) found that 10% of respondents had experienced high levels of post-traumatic stress since the SARS outbreak three years earlier. Respondents who were quarantined or worked in high-risk locations such as the SARS ward or who had close relatives infected by SARS had levels of post-traumatic stress symptoms 2 to 3 times higher than those without this exposure. Therefore, counseling services are essential so there is no second disaster after the outbreak ends.

Responding to the importance of public mental health services during the COVID-19 outbreak, the Ministry of Health of Saudi Arabia opened a free psychological consultation service to the public. Various methods are offered to meet people's psychological consultation needs, such as 937 call centers (call and WhatsApp text) (Alhraiwil et al., 2022), and mobile applications such as *Sehhaty, Tawakkalna,* and

Tabaud (Hassounah et al., 2020). The aim of this program is to provide counseling and psychosocial support for medical staff, COVID-19 patients and their families, and individuals who feel anxious due to COVID-19. In addition, this program is also intended to educate the public about the importance of awareness related to coronavirus.

Primary target groups

Medical staff

Kang *et al.* (Kang et al., 2020), in their study of the mental health of medical staff in Wuhan, reported that medical staff faces great pressure, including a high risk of being infected with COVID-19. They also have a high workload, feel frustration, discrimination, isolation, and lack of contact with their family. These conditions cause mental health problems such as stress, anxiety, depressive symptoms, insomnia, denial, anger, and fear.

A relatively similar situation also occurred in Saudi Arabia. Workloads have tripled, and there is a fear of being infected by the coronavirus, which increases stress and paranoia for medical staff. In addition, there are concerns felt by medical staff that they can bring the virus home and transmit it to their families so that not a few of them are isolating themselves in hotels (Nugali, 2020).

COVID-19 patients and their families

The following groups are patients and their families. One of the most stressful things faced by patients and their families, besides COVID-19 itself, is the community's stigma. Indeed, in various parts of the world, COVID-19 patients get two misfortunes: besides the disease itself, they are also vulnerable to discrimination (Lin, 2020). In Indonesia, the first COVID-19 patient even had his house installed with a police barrier tape by the police officers (Daryono, 2020). However, it can be unsettling to the public and make patients feel as if they committed a crime.

The individual who feels anxious due to COVID-19

The final group that becomes the priority in the delivery of telemental health services is the general public or individual who feels anxiety and stress during the COVID-19 pandemic. The most common mental problem encountered in people facing traumatic events, such as the COVID-19 pandemic, is an increased stress response (Garfin et al., 2018). This stress response enhances disproportionate help-seeking behaviors such as panic buying. It resulted in a shortage of basic and medical needs and a surge in the prices of those needs.

The methods for accessing public mental health service

All three groups are prioritized in telemental health services in Saudi Arabia. Counseling can be done in various ways, including voice calling through telephone connections or text messaging through WhatsApp or sending direct messages to Ministry of Health social media accounts such as Snapchat, Twitter, and Telegram.

The 937 call center was first launched in 2013 (Ministry of Health Kingdom of Saudi Arabia, 2013) and improved its service based on WhatsApp in May 2020, providing consultations regarding COVID-19. The 937-Call Center operates 24 hours a day, seven days a week, catering to general COVID-19 inquiries and offering comprehensive guidance, medical advice, and psychological consultations on all aspects of the pandemic. It extends its services through diverse communication channels, including telephone, social media, email, electronic applications, and instant chat on the ministry's website (Ministry of Health Kingdom of Saudi Arabia, n.d.).

The Center is staffed with over 1,000 individuals (physicians and customer service specialists). The 937-Call Center extends its services to citizens, residents, and visitors without any charge (Ministry of Health Kingdom of Saudi Arabia, n.d.). A study revealed that in 2020, there was a significant increase in the number of calls received by 296% compared to the same period in 2019 (Alhraiwit et al., 2022). The surge in call volume was effectively addressed by recruiting volunteers, with an average of 236 individuals per month being enlisted to handle calls. These dedicated volunteers accounted for approximately 20% of the overall call volume. While the majority of volunteers consisted of physicians, the team also included pharmacists, psychologists, and specialized healthcare professionals like nutritionists (Alhraiwil et al., 2022).

One interesting thing is that the implementation of mental health services provided by the Saudi Ministry of Health is not only aimed at treatment or intervention. In addition to curative actions, they also carry out promotive actions related to mental health, especially during this pandemic, through their social media accounts.

The Ministry of Health's social media accounts, as well as the government hospitals, are very active in providing education and campaigning on maintaining psychological conditions so as not too anxious and stressed during a pandemic. Based on The Communications, Space, and Technology Commission (CST) report, there are 98.6% active internet users in Saudi Arabia (The Communications, Space, and Technology Commission, 2023). Furthermore, 23 million people are active social media users, or 68% of the total population. Saudi Arabia is even the largest monthly Snapchat active user in the world, with 14.56 million users (Kemp, 2019). Thus, the activities conducted by the government in discussing mental health issues during the pandemic, from promotive to curative programs, have a positive impact on people's mental health.

The World Health Organization defines mental health as a state of well-being characterized by four indicators: an individual realizes his own abilities, can cope with the everyday stresses of life, can work productively, and can contribute to his community (World Health Organization, 2022). It means a healthy mental does not mean free from stress, but how individuals can manage stress so that they remain productive and beneficial to society.

Referring to this definition, in a case study in Saudi Arabia society, there were no serious mental health problems found in the community during the COVID-19 outbreak. This was proven, for example, by the absence of panic buying behavior in the community based on observations made by researchers in several supermarkets in Riyadh. People only shop according to their needs, so the stock of necessities in the market is always available. This differs from the conditions in some countries where COVID-19 makes most people panic buying, resulting in the scarcity of some needs.

Additionally, according to recent research, Saudi Arabia has not encountered any major mass mental health concerns. Various factors, such as the availability of free psychological counseling services, the integration of religious values, and the implementation of effective government policies, are responsible for this (Ruddin, 2020).

Ulama role

Besides being used by psychologists or psychiatrists, Islamic scholars (ulama) also implement long-distance guidance services. As well known, Saudi Arabia is a religious country. So, the ulama has a quite dominant role for the community. The involvement of ulama in guiding people through long-distance services also plays a role in maintaining the community's mental health. In their videos during the COVID-19 pandemic, they often repeat the verses from Al-Qur'an, i.e.:

"And We will surely test you with something of fear and hunger and a loss of wealth and lives and fruits, but give good tidings to the patient, Who, when disaster strikes them, say, "Indeed we belong to Allah, and indeed to Him we will return. Those are the ones upon whom are blessings from their Lord and mercy. And it is those who are the [rightly] guided. [Al-Qur'an Surat Al-Baqarah: 155-157].

Through these verses, the ulama invited people to be patient in facing the COVID-19 pandemic because patience will bring goodness to them. Ali's study of the role of imams and mental health concluded that the ulama or imams had a role in addressing the mental health of their community members (Ali, 2016).

CONCLUSION

The COVID-19 pandemic has an impact not only on physical health but also on mental health. Some mental health problems that often arise in stressful situations, including a coronavirus pandemic, are anxiety, depression, and stress. In COVID-19 pandemic situations, regular mental health services are closed due to lockdown and social/physical distancing policies. Telemental health has come up as a solution to the restriction of regular mental health services.

In Saudi Arabia, telemental health services are delivered in various ways: voice calls, text messages via WhatsApp, direct messages to the Ministry of Health's social media accounts, and consultation via various mobile applications. The priority groups in this service are medical staff, patients and their families, and individuals who feel anxiety and stress due to the coronavirus. This research is a pilot project. Future research should be able to focus on measuring the effectiveness of telemental health services during COVID-19.

Ethics statement

This study was conducted based on ethical standard.

Authors contribution

FR and SSA contributes in designing the study, data collection, data analysis, and writing manuscript.

Conflict of interest

There is no conflict of interest in this study.

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REFERENCES

Alhraiwil, N. J., Al-Aqeel, S., AlFaleh, A. F., AlAgeel, A. A., AlAbed, M. A., & Al-Shroby, W. A. (2022). Impact of COVID-19 on the 937 Telephone Medical Consultation Service in Saudi Arabia. *International Journal of Telemedicine and Applications*, *2022*, 4181322. https://doi.org/10.1155/2022/4181322

Ali, O. M. (2016). 20201218. *Journal of Muslim Mental Health*, *10*(1). https://doi.org/10.3998/jmmh.10381607.0010.106

Alrashed, S., Min-Allah, N., Saxena, A., Ali, I., & Mehmood, R. (2020). Impact of lockdowns on the spread of COVID-19 in Saudi Arabia. *Informatics in Medicine Unlocked*, *20*, 100420. https://doi.org/10.1016/j.imu.2020.100420

Chau, S. W. H., Wong, O. W. H., Ramakrishnan, R., Chan, S. S. M., Wong, E. K. Y., Li, P. Y. T., Raymont, V., Elliot, K., Rathod, S., Delanerolle, G., & Phiri, P. (2021). History for some or lesson for all? A systematic review and meta-analysis on the immediate and long-term mental health impact of the 2002–2003 Severe Acute Respiratory Syndrome (SARS) outbreak. *BMC Public Health*, *21*(1), 670. https://doi.org/10.1186/s12889-021-10701-3

Dar, K. A., Iqbal, N., & Mushtaq, A. (2017). Intolerance of uncertainty, depression, and anxiety: Examining the indirect and moderating effects of worry. *Asian Journal of Psychiatry*, *29*, 129–133. https://doi.org/10.1016/j.ajp.2017.04.017

Daryono, A. M. (2020, Maarch). *Polisi Pasang Police Line di Rumah Warga Depok yang Positif Corona*. kumparan. https://kumparan.com/kumparannews/polisi-pasang-police-line-di-rumah-warga-depok-yang-positif-corona-1swnSztIMqm

Farré, L., Fasani, F., & Mueller, H. (2018). Feeling useless: The effect of unemployment on mental health in the Great Recession. *IZA Journal of Labor Economics*, *7*(1), 8. https://doi.org/10.1186/s40172-018-0068-5

Freiling, I., Krause, N. M., Scheufele, D. A., & Brossard, D. (2023). Believing and sharing misinformation, fact-checks, and accurate information on social media: The role of anxiety during COVID-19. *New Media & Society*, *25*(1), 141–162. https://doi.org/10.1177/14614448211011451

Garfin, D. R., Thompson, R. R., & Holman, E. A. (2018). Acute stress and subsequent health outcomes: A systematic review. *Journal of Psychosomatic Research*, *112*, 107–113. https://doi.org/10.1016/j.jpsychores.2018.05.017

Hassounah, M., Raheel, H., & Alhefzi, M. (2020). Digital Response During the COVID-19 Pandemic in Saudi Arabia. *Journal of Medical Internet Research*, *22*(9), e19338. https://doi.org/10.2196/19338

International Labour Organization. (2020). *COVID-19 and the world of work: Impact and policy responses*. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_738753.pdf

Islam, T., Pitafi, A. H., Arya, V., Wang, Y., Akhtar, N., Mubarik, S., & Xiaobei, L. (2021). Panic buying in the COVID-19 pandemic: A multi-country examination. *Journal of Retailing and Consumer Services*, *59*, 102357. https://doi.org/10.1016/j.jretconser.2020.102357

Kadam, A. B., & Atre, S. R. (2020). Negative impact of social media panic during the COVID-19 outbreak in India. *Journal of Travel Medicine*, *27*(3), taaa057. https://doi.org/10.1093/jtm/taaa057

Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B. X., Wang, Y., Hu, J., Lai, J., Ma, X., Chen, J., Guan, L., Wang, G., Ma, H., & Liu, Z. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *The Lancet Psychiatry*, *7*(3), e14. https://doi.org/10.1016/S2215-0366(20)30047-X

Kemp, S. (2019, January 31). *Digital in 2019: Global Internet Use Accelerates*. We Are Social UK. https://wearesocial.com/uk/blog/2019/01/digital-in-2019-global-internet-use-accelerates/

Lin, C.-Y. (2020). Social reaction toward the 2019 novel coronavirus (COVID-19) Lin CY - Soc Health Behav. *Social Health and Behavior*, *3*(1), 1–2.

Ministry of Health Kingdom of Saudi Arabia. (n.d.). *MOH Launches First Phase of WhatsApp Service for 937 Call Center*. Ministry Of Health Saudi Arabia. Retrieved November 8, 2023, from https://www.moh.gov.sa/en/Pages/Default.aspx

Ministry of Health Kingdom of Saudi Arabia. (2013, May 13). *MOH Minister to Launch the 937-Service (MOH Emergency Call Center) Tomorrow*. Ministry Of Health Saudi Arabia. https://www.moh.gov.sa/en/Pages/Default.aspx

Ministry of Health Kingdom of Saudi Arabia. (2020, March 2). *MOH News—MOH Reports First Case of Coronavirus Infection*. https://www.moh.gov.sa/en/Ministry/MediaCenter/News/Pages/News-2020-03-02-002.aspx

Nicomedes, C. J., & Avila, R. M. (2020). *An Analysis on the Panic of Filipinos During COVID-19 Pandemic in the Philippines*. https://doi.org/10.13140/RG.2.2.17355.54565

Nugali, N. (2020, April 21). *Saudi Arabia's active mass testing contains COVID-19 spread | Arab News*. https://www.arabnews.com/node/1662856/saudi-arabia

Pathirathna, M. L., Nandasena, H. M. R. K., Atapattu, A. M. M. P., & Weerasekara, I. (2022). Impact of the COVID-19 pandemic on suicidal attempts and death rates: A systematic review. *BMC Psychiatry*, *22*(1), 506. https://doi.org/10.1186/s12888-022-04158-w

Ruddin, F. (2020). Dinamika Kesehatan Mental Penduduk Arab Saudi selama Pandemi Covid-19. *Psikoislamika : Jurnal Psikologi Dan Psikologi Islam*, *17*(1), 17. https://doi.org/10.18860/psi.v17i1.9337

The Communications, Space, and Technology Commission. (2023, March 8). *CST issued the Saudi Internet Report, which includes data and statistics on internet penetration and use*. https://www.cst.gov.sa/en/mediacenter/pressreleases/Pages/2023030802.aspx

Waugh, M., Voyles, D., & Thomas, M. R. (2015). Telepsychiatry: Benefits and costs in a changing health-care environment. *International Review of Psychiatry*, *27*(6), 558–568. https://doi.org/10.3109/09540261.2015.1091291

World Health Organization. (2016). *Global diffusion of eHealth: Making universal health coverage achievable: report of the third global survey on eHealth*. World Health Organization. https://iris.who.int/handle/10665/252529

World Health Organization. (2022, June 17). *Mental health*. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

World Health Organization. (2023). *WHO Coronavirus (COVID-19) Dashboard*. https://covid19.who.int

Wu, K. K., Chan, S. K., & Ma, T. M. (2005). Posttraumatic Stress after SARS. *Emerging Infectious Diseases*, *11*(8), 1297–1300. https://doi.org/10.3201/eid1108.041083

Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., Liu, X., Fuller, C. J., Susser, E., Lu, J., & Hoven, C. W. (2009). The Psychological Impact of the SARS Epidemic on Hospital Employees in China: Exposure, Risk Perception, and Altruistic Acceptance of Risk. *The Canadian Journal of Psychiatry*, *54*(5), 302–311. https://doi.org/10.1177/070674370905400504

Xiang, Y.-T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry*, *7*(3), 228–229. https://doi.org/10.1016/S2215-0366(20)30046-8

Zhang, J., Wu, W., Zhao, X., & Zhang, W. (2020). Recommended psychological crisis intervention response to the 2019 novel coronavirus pneumonia outbreak in China: A model of West China Hospital. *Precision Clinical Medicine*, *3*(1), 3–8. https://doi.org/10.1093/pcmedi/pbaa006

Zhou, X., Snoswell, C. L., Harding, L. E., Bambling, M., Edirippulige, S., Bai, X., & Smith, A. C. (2020). The Role of Telehealth in Reducing the Mental Health Burden from COVID-19. *Telemedicine and E-Health*, *26*(4), 377–379. https://doi.org/10.1089/tmj.2020.0068