Culturally Appropriate Interventions For Prevention And Treatment Of Mental Health In Saudi Arabia

Saad Alghamdi ¹; Sami Eid ¹; Abdullah Alkaff ¹; Waleed Alshehri ¹; Aqeela Ataffi ¹; Ahmed Alsameti ¹; Abdullah Albeladi ¹; Fisal Alsolami ¹; Hasan Alsaadi ¹;Ahmad Albargi ²

¹ Directorate of Health Affairs in Jeddah, Ministry of Health, Saudi Arabia.

² Assir Public Health Administration, Ministry of Health, Saudi Arabia.

Abstract

Mental health conditions present devastating effects to patients, patient families and healthcare systems across the globe. While there are conventional approaches to their treatment and management, the beliefs around their development and prognosis continue to present hurdles in the sole use of Western medicine. Complementary and alternative medicinal (CAM) approach, which draws on patients' cultural beliefs, has been recommended across literature to augment the conventional medicine. This narrative review examined the culturally appropriate interventions for prevention and treatment of mental health in Saudi Arabia. Four culturally oriented approaches were noted to be effective in preventing and managing mental health problems, including faith-based interventions and practices, traditional healing, herbal medicine, and culturally sensitive cognitive behavioral therapy. Nevertheless, the applications of these interventions often face challenges of inadequate resources and culturally competent among other hurdles, which call for the attention of the Saudi healthcare system administrators for better outcomes.

Keywords: Mental Health, Complementary and Alternative Medicine, Cultural Competency, Saudi Arabia

Introduction

Mental health conditions encompass a wide range of experiences that affect how an individual thinks, feels, and acts (WHO, 2022). These conditions can cause significant distress and interfere with daily life. Some of the common examples include anxiety disorders, depression, and post-traumatic stress disorders and schizophrenia (Atallah et al., 2018). There is a slight distinction between a mental disorder and a broader mental health condition whereby mental disorders are clinically defined patterns of symptoms, while mental health conditions encompass a wider range of experiences that may or may not meet the criteria for a formal diagnosis (Moitra et al., 2023).

Epidemiological reports show that the global prevalence of mental health conditions keeps changing. In 2019, studies estimated that 970 million people (1 in 8 individuals) lived with some form of mental disorder, with anxiety and depression being the most common (WHO, 2022). The COVID-19 pandemic has further raised the prevalence (Nochaiwong et al., 2021). Initial studies suggest a significant increase in anxiety and depression diagnoses, with a 26% and 28% rise respectively for just one year (Nochaiwong et al., 2021; WHO, 2022). A study conducted in Saudi Arabia by Al Balawi et al. (2019, p. 2908) established that "the prevalence of depression [among young adults] was 74%; mild among 37.8%, moderate among 20.8% whereas moderately severe to severe among 15.4% of them."

Even though majority of the mental health sufferers do not get effective care for various reasons, evidence show that the few who receive the care progress better when given culturally sensitive care services (Henderson et al., 2018; Kirmayer & Jarvis, 2019). Culturally sensitive care to mental health patients is crucial as it ensures better engagement and trust, better understanding of the symptoms, and ensure tailored intervention that does not go against patients' beliefs (Kirmayer & Jarvis, 2019).

In Saudi Arabia, Islamic faith injects a significant influence on the population's mental health and help-seeking. For instance, the Quran normalizes mental distress, emphasizing significance of faith, while promoting overall well-being through practices like prayer and charity. At the same time, strong family ties and

collective support networks ensure that the victims get better emotional stability and develop resilience (Alshehri et al., 2020). Cultural values, such as patience and social responsibility contribute significant positive effect towards patients' recovery.

Cultural competency in the delivery of mental healthcare services

This research applies the concept of cultural competency in the delivery of mental healthcare services. Cultural competency is an attribute employed by the mental healthcare service providers towards ensuring better health outcomes among the affected individuals (Nair & Adetayo, 2019). Accordingly, the healthcare service providers are expected to have an awareness of different cultural and practices and how they relate with the situation in Saudi Arabia. A culturally competent service provider has the knowledge about the various cultural elements that influence help-seeking behaviors as well as the role played by family and religion.

Moreover, these healthcare service providers should employ culturally effective approaches, such as respect, dignity, and relevant language to address patients' needs, taking into consideration that mental health patients have heightened psychosocial needs. As a result, mental health patients who receive culturally competent healthcare services would realize many benefits, such as increased adherence to treatment regime, reduced stigma, and better access to the treatment services (Handtke et al., 2019). As such, this research leans on the idea that the mental healthcare service providers need adequate and relevant knowledge about the patients' culture and belief, which would in turn improve their overall care trajectories and treatment outcomes.

Culturally Appropriate Interventions to prevent and treat mental conditions

The implication of culture in the prevention and management of mental health condition is a deep-rooted concept with a long history. People from many regions apply the use of traditional approaches to manage various mental health conditions (Abbo et al., 2019; Sarris, 2018). Three major approaches are apparent in the literature as far as the implication of culture in CAM is concerned. These include the faith-based intervention and

practices, and culturally-oriented. The specific culturally-integrated approaches in Saudi Arabia include Islamic faith-based practices (faith healers), traditional healers, herbal medicine, cauterization and culturally oriented cognitive behavioral therapy.

Faith-based interventions and practices

Faith-based programs have been tightly intertwined with traditional practices in treating mental health conditions in Saudi Arabia. A recent study conducted by Altuwairqi (2024) provides evidence about wide usage and significance of faith healers in Saudi Arabia. The study first noted diverse psychosocial distress among the Saudi residents; anxiety (28.4%), depression (25.2%) and stress (23.3%). It was further noted that there was relatively lower severity of the mental health symptoms among the participants who keenly resorted to the faith-based activities, such as the "humble prayer, maintaining regular sunnah prayer, consistently reading the Qur'an and engaging in daily remembrance (Azkar)" (Altuwairqi, 2024, p. 100). Accordingly, the study results support the well-known understanding within the Islamic community about how Islamic practices inject a positively influence on the mental health recovery trajectories. Additionally, it the evidence also highlight the significance of incorporating spiritual interventions alongside conventional biological, psychological, and social approaches in addressing psychiatric disorders.

Pieces of empirical evidence further shows that the application of Islamic values and beliefs, such as humble and persistent prayers, can produce positive outcomes in therapeutic strategies for individuals who suffer with mental health challenges in Saudi Arabia (Sabry & Vohra, 2013). This approach entails integrating Islamic principles to enhance medication adherence and tailoring diverse psychotherapeutic methods to accommodate the specific requirements of psychiatric patients. Another research study also affirms the significance of Islamic practices, such as reading the Qur'an to improve mental health conditions (Koenig & Al Shohaib, 2019). Overall, researchers stress that engaging in activities such as reading and reciting the Qur'an, maintaining regular prayer, and strongly adhering to Islamic beliefs and teachings have been observed to alleviate stress and foster improved well-being and

happiness (Munsoor & Munsoor, 2017; Koenig & Al Shohaib, 2014). The inference drawn suggests that Muslims who adhere to these practices tend to demonstrate better mental health outcomes compared to those who do not, at least in this earthly life.

Apart from alleviating mental distress, other pieces of research evidence show that some Islamic practices help the believers to meet self-control, alleviate anxiety, and exert a positive impact on reducing the prevalence of depression and stress in the daily life (Najam et al., 2019). The same fashion is apparent in Saudi Arabia where adherence to Islamic practice is on the peak. On the same note, Iswanto et al. (2022) noted that those who exhibit higher levels of commitment to their religious beliefs tend to experience lower levels of depression. This observation thus seals the significance of religious practices in the treatment of mental health conditions. Persistent and humble prayers and strong commitment on one's roles are vital in improving psychosocial comfort among patients with mental health illnesses, notably depression (Iswanto et al., 2022).

Recent piece of evidence has shown that consistent and timely engagement in prayer and Azkar has shown to produce a positive effect on the physical and mental well-being among the hospitalized schizophrenia (Irawati et al., 2023). Based on these observations, it is notable that mental health facilities are beneficial in enhancing patients' commitment to prayers by providing prayer resources, such as Quran to patients. Prayers are vital in providing comfort and reducing psychological suffering among the individuals with psychological distress. Ijaz et al. (2017) stress the significance of regular prayer and mindfulness in alleviating the burden of mental health illnesses. It has also been noted that the culturally oriented prayer sessions do not only help to reduce stress but also reduce aggression among mental health patient (Pajević et al., 2017).

However, the usage of faith-based healings does not apply to everyone equally in Suadi Arabia. The research conducted by Alosaimi et al. (2015) in Riyadh, Saudi Arabia made a number of exciting observations about the variations in the impacts of faith-based interventions in managing mental health conditions. First, the study noted that males were fond of seeking faith healing than

females. Higher likelihood of seeking the faith healing was also noted among those who are single, divorced or widowed, and lower education qualification. For instance, individuals with intermediate or secondary levels of education reported higher likelihood of seeking faith healing than those with postgraduate degrees.

Literacy and chances of visiting the faith-based healers have been linked in other studies too. For example, Sorketti et al. (2012) observed that most of those who sought the services of faith healers were illiterate or had only the basic education. The seme relationship had been noted by Al-Rowais et al. (2010), who reported an inverse relationship between level of education and use of faith healers.

Traditional healing

Traditional healing is also actively applied in Saudi Arabia to treat various mental health illnesses. The technique uses diverse approaches, including appeasing the ancestral spirits, and using holy water, herbs and cautery (Al-Rowais et al., 2010). These practices find a special niche in the Saudi healthcare system where they align with the biomedical and spiritual models to bring about care for mental health problems. As such, culture and belief play a significant role in mediating the impact of traditional healing practices and the outcome of such practices.

The Saudi Arabian communities hold on to a belief orchestrated by the traditional healers that mental disorders often arise from magical practices, the evil eye, or devil possession (Sayed et al., 1999). This belief strongly influences how people seek help from these healers. Consequently, there is a reliance on traditional healing practices that align with these beliefs, which exhibits the significance of cultural significance of the traditional interpretations of mental illness, impacting the accessibility and utilization of modern mental health services in the region. Empirical evidence from Sayed et al. (1999) shows that about 70% of those suffering from mental health conditions have, at least, sought the assistance of traditional healers. Among these help-seekers, it was observed that females, individuals of older ages, and those suffering from schizophrenia were noted to dominate the habit of seeking the traditional healing services.

Herbal medicine

Herbal medicine is another significant domain of the complementary medicine that roots on cultural system of Saudi Arabia healthcare. According to the study by Alghadir et al. (2022), herbal medicine is widely used in the central parts of Saudi Arabia. There is a traditional belief that herbal medicine is safe for use. In the same study by Alghadir et al., about 77% of the respondents had, at least, used herbal medicine to treat their mental health problems and 42.24% had used dietary approaches.

While some individuals seek the help of traditional herbal medicine experts, it has also been noted that, a significant proportion of those suffering from various diseases practice self-medication (Al-Yousef et al., 2019). Some of the users of the herbal medicine only rely on the information given by family members or family friend who had used the same approach before. It is widely believed that herbal medicine is effective in treating mental health problems in Saudi Arabia.

Cauterization had also been used for a long period in Saudi Arabia before researchers cited many negative repercussions that arise when used. Nevertheless, it had been used as an indigenous treatment technique blended in cultural practice to treat psychiatric and non-psychiatric health conditions in Saudi Arabia (Qureshi et al., 1998). Evidence shows that individuals with lower levels of education, residing in rural areas, or enduring chronic psychotic disorders demonstrated a higher propensity for employing cautery treatment. Parents exerted the most significant influence on the decision to seek cautery therapy (Koenig et al., 2014).

Cognitive behavioral therapy

Cognitive behavioral therapy has been widely used in Saudi Arabia to treat mental health conditions. However, the research by Algahtani et al. (2019) noted that the approach should be culturally oriented in order to produce desired outcomes among the residents of Saudi Arabia. From the interviews conducted by Algahtani et al., it was reported that even though cognitive behavioral therapy is effective in treating mood-related disorders, it needs to be culturally oriented to produce better outcomes

among patients. However, as one of the interview respondents reported, the technique requires highly experienced and culturally competent healthcare workers. The healthcare workers need to consider the religious and language differences while applying the therapy to ensure comfort among the patients. Nevertheless, a recent randomized controlled trial by Kayrouz et al. (2015) investigating internet-delivered Cognitive Behavioral Therapy for an Australian Arab population underscored the importance of cultural sensitivity in translating therapy manuals.

Challenges and Future considerations

Ensuring that the mental health patients receive adequate care services in Saudi Arabia faces a myriad of challenges and issues that should be addressed going forward. First, there is evidence of staff shortages (Halabi et al., 2021). While Saudi Arabia has several mental healthcare workers, not all of the can be described to be culturally competent in the service delivery, thereby limiting the comprehensive patient care. The other significant challenge that pushes the culture-oriented practices aside is the influence of the predominance of Western biomedical approaches that overlooks traditional and faith-based practices (Alkhamaiseh & Aljofan, 2020). While the culturally oriented practices have significant impact especially in a culturally diverse environment like Saudi Arabia, some patients' families still resort to the conventional medical care (Khan et al., 2020). In fact, some scholars have also pointed out that striking a balance between the conventional approaches and personalized care can be challenging (Alkhamaiseh & Aljofan, 2020).

Moreover, resource constraint is another critical challenge that universally affect the delivery of culturally competent mental healthcare services (Alangari et al., 2020). Limited funding and limited research evidence can critically impede the delivery of culturally sensitive mental healthcare services in Saudi Arabia. Evidence show that resources and awareness are some of the challenges that critically hamper the management of mental health conditions in the developing countries (Alangari et al., 2020; Atallah et al., 2018).

Moving forward, the Saudi health system and policy makers need to roll out more training to raise the number of culturally

competent professionals. At the same time, there is a need for further research on integration efficacy to come up with ways to smoothen the junction between conventional and culturally oriented care. Finally, there is a need for active community outreach initiatives to destignatize mental health while promoting culturally appropriate services, fostering a more inclusive and effective mental healthcare system in Saudi Arabia.

Conclusion and recommendation

Saudi Arabia is a culturally diverse environment with different ethnic beliefs and social practices that collectively paint a deep picture of culturally rich nation. Literature evidence show that cultural competency is vital in delivering comprehensive mental healthcare services. This review noted that addressing mental health conditions in a culturally sensitive way in Saudi Arabia takes a four main approaches, including faith-based interventions and practices, traditional healing, herbal medicine, and cognitive behavioral therapy. Faith-based practices and traditional healing seem to dominate. For instance, faith-based intervention practices, such as prayers and adherence to the Islamic practices have proven to be vital in preventing and even improving mental wellbeing among the Saudi populations. At the same time, the traditional healing practices, mostly offered by the traditional medicine men are also effective in improving mental health status of the sufferers. However, there are challenges that need to be addressed to ensure better applications of culturally oriented mental healthcare services in Saudi Arabia. For example, it is apparent that cultural beliefs and practices heavily influence help-seeking behaviors and treatment preferences, emphasizing the importance of culturally sensitive approaches in mental healthcare. Therefore, there is a need to promote collaboration between traditional healers, religious leaders, and mental health professionals to enhance the accessibility and effectiveness of mental healthcare services in Saudi Arabia.

Conflict of interest

None.

References

- Abbo, C., Odokonyero, R., & Ovuga, E. (2019). A narrative analysis of the link between modern medicine and traditional medicine in Africa: a case of mental health in Uganda. Brain research bulletin, 145, 109-116.
- Al Balawi, M. M., Faraj, F., Al Anazi, B. D., & Al Balawi, D. M. (2019).

 Prevalence of Depression and Its Associated Risk Factors among
 Young Adult Patients Attending the Primary Health Centers in
 Tabuk, Saudi Arabia. Open access Macedonian journal of
 medical sciences, 7(17), 2908–2916.

 https://doi.org/10.3889/oamjms.2019.789
- Alangari, A. S., Knox, S. S., Kristjansson, A. L., Wen, S., Innes, K. E., Bilal, L., ... & Altwaijri, Y. A. (2020). Barriers to mental health treatment in the Saudi National Mental Health Survey. International journal of environmental research and public health, 17(11), 3877. https://doi.org/10.3390/ijerph17113877
- Algahtani, H. M. S., Almulhim, A., AlNajjar, F. A., Ali, M. K., Irfan, M., Ayub, M., & Naeem, F. (2019). Cultural adaptation of cognitive behavioural therapy (CBT) for patients with depression and anxiety in Saudi Arabia and Bahrain: A qualitative study exploring views of patients, carers, and mental health professionals. The Cognitive Behaviour Therapist, 12, e44.
- Alghadir, A. H., Iqbal, A., & Iqbal, Z. A. (2022, May). Attitude, beliefs, and use of herbal remedies by patients in the Riyadh region of Saudi Arabia. In Healthcare (Vol. 10, No. 5, p. 907). MDPI. https://doi.org/10.3390/healthcare10050907
- Alkhamaiseh, S. I., & Aljofan, M. (2020). Prevalence of use and reported side effects of herbal medicine among adults in Saudi Arabia. Complementary therapies in medicine, 48, 102255.
- Alosaimi, F. D., Alshehri, Y., Alfraih, I., Alghamdi, A., Aldahash, S., Alkhuzayem, H., & Al-Beeshi, H. (2015). Psychosocial correlates of using faith healing services in Riyadh, Saudi Arabia: a comparative cross-sectional study. International Journal of Mental Health Systems, 9, 1-6. https://doi.org/10.1186/1752-4458-9-8
- Al-Rowais, N., Al-Faris, E., Mohammad, A. G., Al-Rukban, M., & Abdulghani, H. M. (2010). Traditional healers in Riyadh region: reasons and health problems for seeking their advice. A household survey. Journal of alternative and complementary medicine (New York, N.Y.), 16(2), 199–204. https://doi.org/10.1089/acm.2009.0283
- Alshehri, N. A., Yildirim, M., & Vostanis, P. (2020). Saudi adolescents' reports of the relationship between parental factors, social support and mental health problems. Arab Journal of Psychiatry, 31(2), 130-143.

- Altuwairqi, Y. A. (2024). The Influence of Islamic Religious Rituals on Psychological Health in Saudi Arabia. Sch J Arts Humanit Soc Sci, 3, 100-109.
- Al-Yousef, H. M., Wajid, S., & Sales, I. (2019). Knowledge, beliefs and attitudes towards herbal medicine—a community-based survey from a central region of Saudi Arabia. Indian Journal of Pharmacy Practice, 12(3).
- Alyousef, S. M. (2017). Interventions recommended to combat a stigma of mental health problems to access mental health care services in Saudi Arabia. IIMHS, 7(4), 36-42.
- Atallah, N., Khalifa, M., El Metwally, A., & Househ, M. (2018). The prevalence and usage of mobile health applications among mental health patients in Saudi Arabia. Computer methods and programs in biomedicine, 156, 163-168.
- Halabi, J. O., Lepp, M., & Nilsson, J. (2021). Assessing self-reported competence among registered nurses working as a culturally diverse work force in public hospitals in the Kingdom of Saudi Arabia. Journal of Transcultural Nursing, 32(1), 69-76. https://doi.org/10.1177/1043659620921222
- Handtke, O., Schilgen, B., & Mösko, M. (2019). Culturally competent healthcare—A scoping review of strategies implemented in healthcare organizations and a model of culturally competent healthcare provision. PloS one, 14(7), e0219971. https://doi.org/10.1371/journal.pone.0219971
- Henderson, S., Horne, M., Hills, R., & Kendall, E. (2018). Cultural competence in healthcare in the community: A concept analysis. Health & Social Care in the Community, 26(4), 590-603.
- Ijaz, S., Khalily, M. T., & Ahmad, I. (2017). Mindfulness in salah prayer and its association with mental health. Journal of Religion and Health, 56, 2297-2307. doi: 10.1007/s10943-017-0413-1
- Irawati, K., Indarwati, F., Haris, F., Lu, J. Y., & Shih, Y. H. (2023). Religious practices and spiritual well-being of schizophrenia: Muslim perspective. Psychology Research and Behavior Management, 739-748. doi: 10.2147/PRBM.S402582
- Iswanto, A. H., Zainal, A. G., Murodov, A., ElEbiary, Y. A. B., & Sattarova, D. G. (2022). Studying the role of Islamic religious beliefs on depression during COVID-19 in Malaysia. HTS Teologiese Studies/Theological Studies, 78(4). Available from: https://www.ajol.info/index.php/hts/article/view/248291
- Kayrouz, R., Dear, B. F., Johnston, L., Gandy, M., Fogliati, V. J., Sheehan, J., & Titov, N. (2015). A feasibility open trial of guided Internetdelivered cognitive behavioural therapy for anxiety and depression amongst Arab Australians. Internet Interventions – The Application of Information Technology in Mental and

Behavioural, 2, 32-

38. https://doi.org/10.1016/j.invent.2014.12.001

- Khan, A., Ahmed, M. E., Aldarmahi, A., Zaidi, S. F., Subahi, A. M., Al Shaikh, A., ... & Alhakami, L. A. (2020). Awareness, self-use, perceptions, beliefs, and attitudes toward complementary and alternative medicines (CAM) among health professional students in King Saud bin Abdulaziz University for Health Sciences Jeddah, Saudi Arabia. Evidence-Based Complementary and Alternative Medicine, 2020.
- Kirmayer, L. J., & Jarvis, G. E. (2019). Culturally responsive services as a path to equity in mental healthcare. HealthcarePapers, 18(2), 11-23.
- Kirmayer, L. J., & Jarvis, G. E. (2019). Culturally responsive services as a path to equity in mental healthcare. HealthcarePapers, 18(2), 11-23.
- Koenig, H. G., & Al Shohaib, S. (2014). Health and well-being in Islamic societies. Cham, Switzerland: Springer.
- Koenig, H. G., & Al Shohaib, S. S. (2019). Religiosity and mental health in Islam. Islamophobia and psychiatry: Recognition, prevention, and treatment, 55-65. doi: 10.1007/978- 3-030-00512-2_5
- Koenig, H. G., Al Zaben, F., Sehlo, M. G., Khalifa, D. A., Al Ahwal, M. S., Qureshi, N. A., & Al-Habeeb, A. A. (2014). Mental health care in Saudi Arabia: Past, present and future. Open Journal of Psychiatry, 4(02), 113.
- Moitra, M., Owens, S., Hailemariam, M., Wilson, K. S., Mensa-Kwao, A., Gonese, G., Kamamia, C. K., White, B., Young, D. M., & Collins, P. Y. (2023). Global Mental Health: Where We Are and Where We Are Going. Current psychiatry reports, 25(7), 301–311. https://doi.org/10.1007/s11920-023-01426-8
- Munsoor, M. S., & Munsoor, H. S. (2017). Well-being and the worshipper:

 A scientific perspective of selected contemplative practices in Islam. Humanomics, 33(2), 163-188.
- Nair, L., & Adetayo, O. A. (2019). Cultural competence and ethnic diversity in healthcare. Plastic and Reconstructive Surgery–Global Open, 7(5), e2219.
- Najam, K. S., Khan, R. S., Waheed, A., & Hassan, R. (2019). Impact of Islamic practices on the mental health of Muslims. International Dental & Medical Journal of Advanced Research, 5(1), 1-6. doi: 10.15713/ins.idmjar.99
- Nochaiwong, S., Ruengorn, C., Thavorn, K., Hutton, B., Awiphan, R., Phosuya, C., Ruanta, Y., Wongpakaran, N., & Wongpakaran, T. (2021). Global prevalence of mental health issues among the general population during the coronavirus disease-2019 pandemic: a systematic review and meta-analysis. Scientific

- reports, 11(1), 10173. https://doi.org/10.1038/s41598-021-89700-8
- Pajević, I., Sinanović, O., & Hasanović, M. (2017). Association of Islamic prayer with psychological stability in Bosnian war veterans. Journal of religion and health, 56(6), 2317-2329. doi: 10.1007/s10943-017-0431-z
- Qureshi, N. A., Al-Amri, A. H., Abdelgadir, M. H., & El-Haraka, E. A. (1998).

 Traditional cautery among psychiatric patients in Saudi
 Arabia. Transcultural psychiatry, 35(1), 75-83.
- Sabry, W. M., & Vohra, A. (2013). Role of Islam in the management of psychiatric disorders. Indian journal of psychiatry, 55(Suppl 2), S205-S214. doi: 10.4103/0019-5545.105534
- Sarris, J. (2018). Herbal medicines in the treatment of psychiatric disorders: 10-year updated review. Phytotherapy Research, 32(7), 1147-1162.
- Sayed, M., Abosinaina, B., & Rahim, S. I. (1999). Traditional healing of psychiatric patients in Saudi Arabia. Curr Psychiatr, 6(1), 11-23.
- Sorketti, E. A., Zainal, N. Z., & Habil, M. H. (2012). The characteristics of people with mental illness who are under treatment in traditional healer centres in Sudan. The International journal of social psychiatry, 58(2), 204–216. https://doi.org/10.1177/0020764010390439
- World Health Organization [WHO] (2022, June 8). Mental disorders.

 https://www.who.int/news-room/fact-sheets/detail/mental-disorders