

NAME: DHAVALKUMAR KAMLESHBHAI MISTRY

STUDENT NUMBER:2239570

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Task 1 - Blogs

Blog 1: Impact of Digital Technology on Health Promotion

With the fast-changing pace of this world, the role of digital technology in health promotion interventions has gained significance with rapid effect. The health and economic burden on public health practice is continuously increasing globally with the rising prevalence of chronic health issues, including cardiovascular health issues, diabetes, and some other issues. Therefore, the need for significant upgrades in health interventions through the incorporation of technologies and other measures is at its peak.

Addressing the concerns of the increasing prevalence of chronic health issues requires harnessing digital technologies in various approaches. One of these approaches is the use of smartphone applications and wearable devices that aid in the promotion of healthy lifestyle choices and management of chronic disease through the monitoring of regular health status and lifestyle habits. Immediate access to information and resources can be facilitated through the utilization of these digital tools; these tools make it easier for users to track their health, acquire health education, and stay in touch with healthcare professionals and providers (Debon et al., 2019). For example, users can monitor their physical activities, diet, and vital signs with wearable devices and accumulate personalized feedback and guidance from the healthcare professionals associated with the smartphone applications. In most cases, the inputs are analyzed with the preset data, but in some cases, healthcare professionals can get in touch with the user through phone calls or video conferences and provide solutions to their issues.

It has been shown in recent studies that the use of smartphone applications and wearable devices such as smartwatches is effective in promoting behavioral changes and improving health outcomes through significant alteration in lifestyle habits and increased health literacy. As the users can monitor the positive and negative changes in their health status through their regular activities and lifestyle, they are showing more interest in maintaining a healthy life by engaging in physical activities, healthy diets, and medicine adherence as per the requirements (Peng et al., 2020). Another positive side of digital technologies is that they can reach far beyond geographical boundaries and make healthcare services and resources available to people even those living in extremely inaccessible regions as long as they have an internet connection.

However, there are respective drawbacks of this advancement. Along with the health disparities for people without access to the internet, smartphones, or wearable devices due to financial or

other reasons, a big threat of data piracy is looming over the users. These shortfalls can be addressed with the active interference of the policymakers and the healthcare providers. More legal and technical resources should be engaged to increase the accessibility of these digital technologies by mitigating the threats of data leaking. Increasing the affordability of smart devices requires active intervention of the government to secure an appropriate economic status for the people so that they can have adequate access to necessary healthcare resources.

References

- Debon, R., Coleone, J. D., Bellei, E. A., & De Marchi, A. C. B. (2019). Mobile health applications for chronic diseases: A systematic review of features for lifestyle improvement. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 13(4), 2507-2512.
<https://doi.org/10.1016/j.dsx.2019.07.016>
- Peng, Y., Wang, H., Fang, Q., Xie, L., Shu, L., Sun, W., & Liu, Q. (2020). Effectiveness of mobile applications on medication adherence in adults with chronic diseases: a systematic review and meta-analysis. *Journal of managed care & specialty pharmacy*, 26(4), 550-561.
<https://doi.org/10.18553/jmcp.2020.26.4.550>

Blog 2: Designing Digital Solutions for Addressing Public Health Issues

Digital technology has been inevitable in managing diverse public health problems; with the wide range of services provided through various digital platforms, a large number of problems can be addressed at the same time. Mental health issues are also considered public health concerns as more and more cases of mental illness are being reported every day (Mumtaz, 2023). World Health Organisation has insinuated that the leading cause of disability worldwide is depression. While addressing this concern, I have designed a digital technology named MindWell.

MindWell is a comprehensive digital platform that combines the features of mental health education, tracking the mood of the user, and connecting them to the mental health professionals on demand (Mindwell, 2023). The provision of personalized content and tailored interventions to meet the unique needs of each client is also included in the features of this programme. This platform utilised artificial intelligence and machine learning algorithms to analyses the responses and behaviours of the users and suggest relevant interventions by directing them to relevant resources. This platform supports the users who are experiencing anxiety and depression by providing adequate mental health education and tracking their mood and behaviours throughout the day. Specific physical changes related to these health conditions are also tracked to analyse the health outcomes.

MindWell can take a significant step in reducing the stigma associated with mental health problems. The user-friendly interface of this platform provides ease of access to the users, thus making its approach to the users smooth. Highest quality data protection measures have been installed within this platform to protect the personal information of the users. However, specific shortcomings of this platform include the lack of accessibility to smartphones or into the rent at all levels of society. Given the different response of different people to digital technology, the effectiveness of MindWell may vary from person to person.

These drawbacks can be addressed with adequate technological education among smartphone users, interference of the policymakers to improve the affordability of people towards smartphone and internet services, and upgrading the data protection measures to respond to the improving attempts to leak personalized information of the users. As a base-level mental health wellness program, it requires more research and development to become completely effective while addressing all the unique needs of the users. We hope to provide the best digital experience to track

and manage mental health issues to the users by refining the existing program and making due improvements.

References

- Mumtaz, H., Riaz, M.H., Wajid, H., Saqib, M., Zeeshan, M.H., Khan.S.E., Chauhan. Y.R., Sohail. H. and Vohra. L.I. (2023). *Current challenges and potential solutions to the use of digital health technologies in evidence generation: a narrative review*. Retrieved From: <https://www.frontiersin.org/journals/digital-health/articles/10.3389/fdgth.2023.1203945/full>
- Mindwell, (2023). *Resilience in the Workplace*. Retrieved From: <https://www.mindwellu.com/>

Task 2 – Poster Design

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Background Mental health issues like depression and anxiety have become so prevalent among people that they can be considered as public health issues. With the changing needs of people, the supply chain is not able to keep up, thus leading to unmet needs of people followed by different mental health problems. WHO has recognised these mental health issues as the leading cause of disability. Driven by the need of leveraging digital technology to address health issues, MindWell has been designed to support people experiencing depression and anxiety.

The existing measures of mental health service involve physical or virtual counselling, books and brochures for self-management, and helplines. However, the users of these measures often become stigmatised and many do not show interest in travelling far from home “just to talk about their mind”. The importance of maintaining good mental health is still unknown to many. Therefore, a smartphone application like MindWell is able to reach to all without other people knowing and without any need to overcome any physical distance. The expense of availing mental health guidance is also higher in the existing measures, whereas, using the smartphone application requires only the access to a smartphone and the internet; the application does not have any premium option demanding for payment from the users. This platform aims to reduce the stigma associated with mental health issues and individuals can seek assistance without any doubt or dilemma.

In the following sections, the incorporation of MindWell into the behavioural theories and the expected outcome of this intervention will be discussed along with the implication for policies, research, and education in the psychology and mental healthcare sector.

Health promotion values and principles

To ensure the success of a public health intervention, the foundation should be formed with appropriate health promotion values and principles. These include equity, participation, empowerment, and highlighting the social determinants of health. MindWell incorporates these principles and values to promote mental health by meeting the unique needs of the clients.

Equity: MindWell promotes equity by providing vital mental health resources to all persons, regardless of their background or socioeconomic situation. It aspires to close the gap in mental health support and give everyone an equal chance to improve their mental health (Gómez et al., 2021).

Participation: By immersing individuals in their mental health journey, our platform fosters involvement. Users are actively tracking their moods, making objectives, and seeking assistance. Participation promotes a sense of control and ownership over one's mental health (World Health Organization, 2019).

Empowerment: At the heart of MindWell is empowerment. The website empowers individuals to make educated decisions about their well-being by offering users with education about mental health, tools to track their emotions, and access to mental health professionals.

Social Determinants of Health: Recognising that a variety of social, economic, and environmental factors influence mental health outcomes, MindWell tailors interventions to address these determinants. It provides resources to assist users in managing stress, building resilience, and connect with community support, all of which can have a substantial influence on their mental health.

MindWell's congruence with these health promotion goals and principles guarantees that the intervention is not only effective but also ethical and equitable, assisting in closing the gap in mental health support among diverse communities. In the following section, we will look at how the Transtheoretical Model can help MindWell promote mental health even more.

Behavior change theory

Understanding human behaviour can be more insightful with the knowledge of behavioural change theories. MindWell utilises the Transtheoretical Model, which notes the stages of change, to functionalise the digital technology intervention effectively. This model is specifically relevant to promote mental health as it can recognise the change in behaviour as a process that appears over time, with the condition of individuals at different stages of life. Followings is a brief discussion on this model.

Precontemplation stage: This is the initial stage where the individuals may not have full awareness about their mental health issues or the need for seeking help (Li et al., 2020). The issues at this stage is addressed by MindWell with the provision of introductory information and awareness raising about the importance to protect and promote mental health. It also helps in understanding the initial symptoms of depression and anxiety through easy-to-read information brochures. This application introduces the users to mood-tracking system and tells them about the benefits of seeking support. This initiative begins the process of change.

Contemplation stage: Individuals consider seeking help while having doubts about the effectiveness of the support system or thinking about the public opinion once their mental health issue becomes known to others (Pennington, 2021). MindWell offers testimonials and stories of successful interventions to motivate individuals to move forward with their decision to seek help. The current users can explore the experience of the former users and be more confident in making decision.

Preparation stage: After deciding to seek support, the preparation stage begins. MindWell provide detailed instruction for their preparation through short blog posts. This application also provides contact information of local mental health professionals who are associated with this program with the input of the location of the user. This application is also able to provide a selfmanagement plan for the users by analyzing their data with the preset dataset.

Action stage: People take proactive steps to manage their mental health during this phase. MindWell offers a variety of tools to assist users, including mood-tracking features, stress management resources, and telehealth links to mental health doctors. The platform makes it easier for people to take the practical activities they need to take to enhance their mental health.

Maintenance stage: At this point, people have effectively managed their mental health, and the objective is to keep these gains going in the end. MindWell is still playing an important role by providing continuing support, resources, and personalized therapies. Users can gain access to resources and tools that will assist them in maintaining positive mental health outcomes.

Termination stage: Once the symptoms of the mental health issue completely alleviate and the individual gains better control over their life, the termination stage begins (Hashemzadeh et al., 2019). MindWell does not have any direct relation to this stage as it is to be determined by the mental health professional who has taken over the case of the individual.

Conclusion

Introducing MindWell has a significant impact on the mental healthcare sector. Unlike several other health-promoting applications, this application does not demand any subscription fees from the user; therefore, it should become more popular among the users who are not very stable financially. This application has been founded on the relevant values and principles of healthcare practice, thus making it effective in addressing the unique needs of people by realizing their real state and condition. MindWell aims to reduce stigma and make mental health support more accessible to people seeking help. It incorporates a Transtheoretical model to determine the stage of change and guide the individuals through all stages. It grants future involvement in digital mental healthcare, engaging the user to be more involved in the efficacy of “MindWell” and comparable approaches. Through “MindWell,” we are bridging the digital health barrier and boosting mental health.

References

Corneil, C. A., Kitchman, D. V., Poth, R., Oonk, O. L. W., Oostel, E., Bailey, C., ... & Brouse, K. R. (2021). Patient-led report addressing health equity and social determinants of health through healthy people 2020. *Journal of Public Health Management and Practice*, 27(6), 826. <https://doi.org/10.1097/PHH.0000000000001207>

Hashemzadeh, F., Alavi-Fard, A. M., & Dast, A. (2019). The transtheoretical model of behavior change: A systematic review. *International journal of nursing and health*, 1(1), 1-11. <https://doi.org/10.1016/j.ijnh.2019.01.001>

Pennington, C. G. (2021). Applying the transtheoretical model of behavioral change to digital mental healthcare: engaging the user to be more involved in the efficacy of “MindWell” and comparable approaches. *Journal of Public Health Management and Practice*, 27(6), 826. <https://doi.org/10.1097/PHH.0000000000001207>

World Health Organization. (2019). *Participation as a driver of health equity*. <https://doi.org/10.1016/j.ijnh.2019.01.001>