

# Mental Health Mobile Apps Review: Islamic Design and Content Features in Digital Therapeutics

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## Abstract

In pandemic Covid-19, mental health and well-being become one of the major concerns for human beings for appeasement in every sphere of life. During a lockdown, the pressure and stress have led to the financial burden, increasing depression, suicides and anxiety. Correspondingly, use of devices, internet and mobile applications are increasing and disruptive. This includes the use of mobile application for mental health solution which could be categorised as Digital Therapeutics (DTx). Some DTx have been designed and developed especially for the people who have been directly or indirectly encountered mental health issues. Literatures indicate the understanding of the Islamic design and content for features for DTx are scarce; therefore, this paper aims to report a review of mobile applications to identify design and Content features for establishing understanding DTx from Islamic point of view. Selected mental health mobile applications have been selected, reviewed and analysed. The findings show Islamic design and Content features can be identified and recognised. It is speculated the Islamic design and content features are potential to alleviate some suffering of mental health and to sustain well-being in digital living.

**Keyword: Mental Health, Islamic Design, Mobile Apps, Digital Therapeutics (DTx)**

## 1. Introduction

Mental health should be prioritized and get important as physical health. In addition, any kind of complexities can profoundly affect mental health and severely impact the individual's life. In certain levels of age and situation, mental health needs more quality support than physical health to lead a perfectly balanced life. Nevertheless, regret is that in this COVID-19 pandemic, an increasing number of young people are suffering from mental problems compared to the past. This fact was presented by Hamel et al. (2020) in Kaiser Family Foundation (KFF) Health Tracking Poll, whereby many adults reported adverse effects of the coronavirus outbreak on their mental health and wellbeing, such as difficulty sleeping (36%) or eating (32%), increased alcohol or substance use (12%), and worsening chronic conditions (12%). As the pandemic continues, crucial public health actions exposed an increasing number of people experience poor mental health, such as isolation and job loss. However, Muslims are taught that every illness can be cured or prevented, based on prophetic tradition: *"There is no disease that Allah has created, except that He also has created its treatment"* (Sahih Al-Bukhari, Book 71, Hadith 582, narrated by Abu Huraira). Therefore, contemporary psychologists and psychiatrists are working hard to normalize awareness on this issue. This paper aims to review the interactive and digital platforms for persons dealing with mental health. Also, a brief overview of the mental health apps and how these are helping to gain mental resilience.

## **2. Literature Review**

### **2.1. Reliance on Digital Platforms in Mental Health Care**

Mental health difficulties may continue to be prevalent and affect people due to insufficient mental health services and counseling centres in our communities. Additionally, lack of awareness led to society's judgemental attitude towards mental health disorders. As a result, those who suffer from it fail to cure it or communicate it to the rest of the world. They suppress their emotions, which eventually progress to a more severe state. In this case, a mental health mobile application can help aid a person's mental situation to be sound and healthy. According to Wang et al. (2018), mental health applications may help improve both the monitoring and management of mental health disorders, particularly depression. Furthermore, these applications are practical because they are simple to use and more convenient to encourage participation in treatment regimens and monitor symptoms. Braun and Gepp (2021) also suggested that such apps are a convenient additional help between therapy sessions or office visits, and they can also provide ongoing support once therapy is over. Truschel and Tzeses (2021) stated that mental health apps are expected to play a significant role in the future of mental health care by delivering innovative options for the self-management of mental health illnesses. Besides, many researchers and psychologists predict that these new digital applications are intended to be used with traditional therapy. Mental health apps provide vital support to the experts who work directly with the patients.

### **2.2. Incorporation of Psychology with Islam: Mental Wellbeing and Psychological Value in Islam**

This part of the study provides a conceptual overview of Quranic teachings on mental health from a comprehensive perspective. Islam incorporates psychology into daily life, but it does so in several facets, such as spiritualism. Samah (2018) stated that the Qur'an can assist those who are suffering from emotional trauma in searching for a meaningful quality of life. She also emphasized that the Qur'an identified destructive thoughts and negative conditioning as *nafs al-ammara*, or the commanding self, approximately a thousand years before western psychology was developed in psychological language. The Qur'an provides guidance to help mankind overcome the inner turbulence created by *nafs al-ammara* and bring the calm self, *nafs al-mutmainna*, into being. This research evidently showed that Islam values mental health highly as well as teaches us to get rid of any kind of negative or self-destructive thoughts and feelings.

The Islamic perspective of mental health may support the encouragement of interfaith and cross-cultural concepts, the abolition of conflicts between Muslims and non-Muslims, and the restoration of tranquillity and safety throughout the world (Farooqi, 2006). Islam provides a complete guideline for our physical and mental well-being with the Qur'an and Prophetic traditions. The Qur'an has been revealed as a guideline, mercy, and means of healing for all of humanity's spiritual, psychological, physical, and social illnesses. Regarding this fact, Rahman (2015) highlighted that in the perspective of Qur'an, man possesses three distinct parts of his entirety, which may be clearly differentiated but cannot be separated. However, treatment and healing for all illnesses can be attained through Allah's direct blessings. From this perspective, it is recognizable that Islam guides a person to build a meaningful life. Islamic faith can change one's life aspects and lead to positive emotional and mental changes. As stated in Surah *Ad-Dhuha*, "*And [by] the night when it covers with darkness; And He found you lost and guided [you], And He found you poor and made [you] self-sufficient.*" (93:2, 7-8 Saheeh International). The sole believe, trust and reliance to Allah swt. is the root for cure and we have to embrace the challenges and tribulations.

Since physical, mental, and spiritual health are all intertwined, the Quran can be an effective approach for healing. Khan (2021) mentioned that physical, mental, and spiritual health are all intertwined, thus Quran can be an effective approach for healing. In the Qur'an, Allah mentioned, "... Say, 'It is, for those who believe, a guidance and cure'..." (41:44, Saheeh International). From this verse, it can be understood that if a person is depressed, he should read the chapters of the Quran. Reciting them and thinking about their meanings can help to improve one's emotional state, better understand or reframe one's situation, and alleviate depression. The role of religion in mental health cannot be minimized. Awaad (2020) emphasized that mental and spiritual wellbeing has been mentioned as a lifelong process in the Islamic legacy. Religious and spiritual values are essential in making choices in life, forming relationships, and mitigating moral or ethical troubles. Our faith and religious views are part of life as Muslims. Therefore, it can be concluded that psychiatric illness treatment must include religious considerations.

### 3. Methodology: Identifying Islamic Design and Content Features

Using mobile apps is part of digital living which has potential for sustaining mental resilience. Chan et al. (2015) stated that mobile phones are widespread in society and held by most psychiatric patients, even those with serious mental illness. Their adaptability as a platform allows them to provide mental health services in the areas of communication, self-monitoring, self-management, diagnosis, and therapy. Mobiles apps for treating medical disorders are known as DTx. This category of applications aims to deliver evidence-based therapeutic interventions to patients that are driven by high-quality software programs to prevent, manage, or treat a medical disorder or disease. Islamic Design and Content features could be identified by conducting a review on selected mobile applications. Aliyu et al. (2016) have reported a conceptual framework on how to evaluate Islamic Websites. Based on this framework, the authors in this paper have selected three features of Islamic mental health app to review: design features, Islamic features, and content features, only focusing on the generic Islamic Design and Content Features. More than ten applications have been selected from Apple Store and google play, searched based on keywords which include "Islamic Mental Health," "Islamic Meditation" and "Muslim Covid-19 Mental Health". Features being reviewed are presented in the sections 4.1 - 4.5.

## 4. Findings & Discussion

### 4.1. Sabr - A Guided Meditation App for Muslims

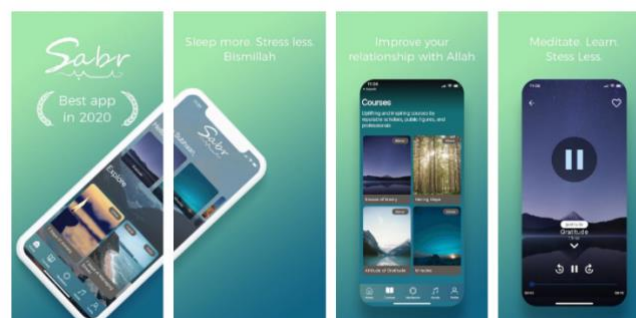


Figure 1: User-Interface of Sabr (Source: <https://cutt.ly/ZRHf7vb>)

Figure 1 captures the user interface for “Sabr” Apps. “Sabr” is an Islamic-centered app for mental and spiritual health. It helps to reduce anxiety, increase confidence, sleep better, and improve your relationship with Allah. It provides several meditation tips, courses, Islamic music (Nasheed) from renowned Nasheed artists from all over the world. Altaieb (2021) mentioned that back in early 2020, developer Ashrafi had no plans to release the app that year.

Then as COVID-19 came, and he was advised to launch the app, as mental health and self-care have become more important during this uncertain time. Ashrafi chose the name “Sabr,” which means patience in English because he believes it is omnipresent. This app provides guided Islamic meditation sessions validated by research and compiled the contents from notable Muslim therapists and professionals worldwide. “*Sabr*” app introduces a new platform for Muslims and believes that life now is difficult with work, diversions, information overload, and the effects of the pandemic. Finding time to ponder and decelerate seems more difficult than before. While there are several guided meditation and mental wellness applications available, an Islamic one is urgently needed. Functionalities for Sabr are recorded in Table 1.

Table 1: Functional Overview of Sabr

<b>Concerns</b>	1. Anxiety, 2. Stress
<b>Goal</b>	1. Guided meditation, 2. Spirituality uplifting courses, 3. Vocals for calming, sleep, study, stress, 4. Increase spiritual relationship with Allah
<b>Subscription</b>	1. Free , 2. Premium membership options: <b>Monthly</b> - RM25.99, <b>Yearly</b> - RM264.99
<b>Ratings</b>	<b>Google play store:</b> 4.6/5 with 206 reviews, <b>App store:</b> 4.8/5 with 106 ratings
<b>Platform</b>	Android & iOS
<b>Release date</b>	July 23, 2020 - Version 1.0.0
<b>Features</b>	<p><b>Splash screen:</b> Sign up, Log in, View as guest</p> <p><b>Home:</b> a. <b>Tasbih:</b> Helps to count Tasbih</p> <p style="padding-left: 40px;">b. <b>7 days of Calming anxiety:</b> 1 session per day from 5 mins - 7 mins Wali Khan</p> <p><b>Courses:</b> 11 types of Uplifting and motivational courses from notable scholars, experts, and public figures.</p> <p><b>Total duration:</b> 9 hours (540 minutes)</p> <p><b>Meditation:</b> Available 12 type of guidance and each provides contains 1 to 7 sessions of 12 different guides</p> <p><b>Vocals:</b> (<i>Nasheed</i>) - 19 albums of Nasheed from several Nasheed artists.</p> <p><b>Total duration:</b> 18 hours</p> <p><b>Holy Qur'an Nasheed:</b> 50 hours</p>

## 4.2. Sakeenah

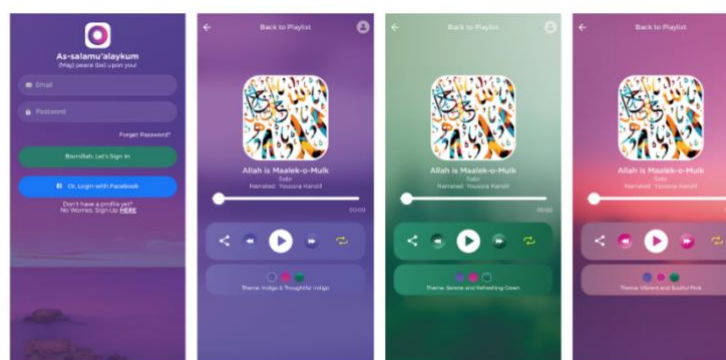


Figure 2: User-Interface of Sakeenah (Source: <https://cutt.ly/tRHgTcm>)

Sakeenah is designed to help Muslims to improve their mental health. Some screen captures for Sakeenah are shown in figure 2. Prideaux (2021) highlighted Sakeenah as a new Muslim-specific mindfulness app. ‘Sakeenah’ which translates to ‘tranquillity’, is a series of guided meditations designed to help Muslims improve their mental health from coping with

depression, anxiety, and lack of sleep to dealing with emotional issues like grief and loss. Sakeenah is a very easy-to-use application and user-friendly for all ages. Sakeenah also offers a series of organized audio content for the mental well-being of Muslims all over the world. This application helps its users by giving solutions to improve their mental health conditions. Table 2 provides a list of functions in Sakeenah.

Table 2: Functional overview of Sakeenah

<b>Concerns</b>	1. Anxiety 2. Depression 3. Lack of sleep 4. Emotional issues
<b>Goal</b>	1. Guided audio content series for meditation. 2. Guided modern techniques from Quran and Hadith
<b>Subscription</b>	1. Free 2. Premium membership options: Monthly - \$4.99 after 7-day free trial
<b>Ratings</b>	<b>Google play store:</b> 4.4/5, <b>App store:</b> 4.8/5 with 106 ratings
<b>Platform</b>	Android & iOS
<b>Release date</b>	January 26, 2020 - Version 1.0.0
<b>Features</b>	<p><b>Splash screen:</b> Sign up, Log in</p> <p><b>Home:</b> Provides 12 kinds of meditation sessions. Users need to choose sessions and listen to audio contents.</p> <p><b>Meditation:</b></p> <ul style="list-style-type: none"> <li>a) <b>Meditation In Islam</b> - Introduction of meditations in Islam.</li> <li>b) <b>Reduce Anxiety</b>- Mindfulness meditation to reduce anxiety.</li> <li>c) <b>Moral Sleep stories</b>- From Islamic History to sleep better.</li> <li>d) <b>Meditate Now</b>- Short single sessions.</li> <li>e) <b>By Allah</b>- Guideline about Allah will always provide way</li> <li>f) <b>Tawakkal Ala'Allah</b>- build trust in Allah's plan.</li> <li>g) <b>Our losses &amp; sabr</b>- Learn to deal with whatever befalls.</li> <li>h) <b>Our Emotions</b> - acknowledgement of user experience</li> <li>i) <b>This too shall pass</b>- The art of navigating through life's contractions</li> <li>j) <b>Qadar</b>- listen as to build a calm unconditional acceptance</li> <li>h) <b>Ground Yourself</b>- 7-minute session of grounding yourself</li> <li>k) <b>Dua</b>- Incredibly powerful Dua's that will heighten connection.</li> </ul> <p><b>Profile:</b> a. User profile information, b. Contact us, c. Rate application, bookmark, favourite</p>

### 4.3 Mindful Muslim

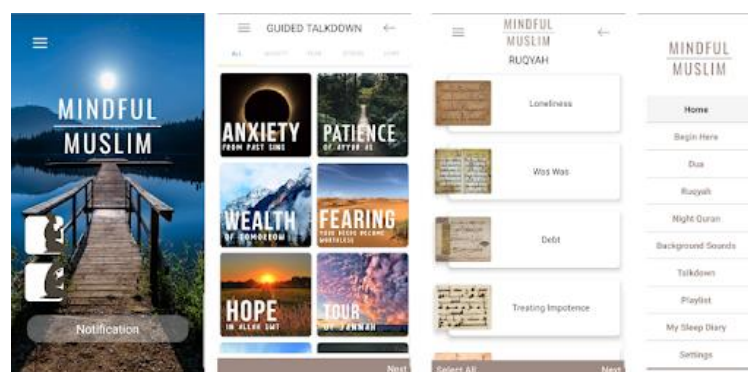


Figure 3: User interface of Mindful Muslim (Source: <https://cutt.ly/WRHgF7m>)

It is among the world's first Islamic mindfulness apps, and it was created to assist 1.8 billion Muslims in improving their emotional and mental well-being through gently guided audio talk downs of Islamic stories. Using Mindful Muslim, users can put up a fully personalized playlist of du'as, ruqyahs, night Quran readings, and Islamic stories to help you fall off to sleep peacefully. The interfaces are shown in Figure 3 while the functions are listed in Table 3.

Table 3: Functional overview of Mindful Islam

<b>Concerns</b>	1. Anxiety, 2. Insomnia, 3. Stress, 4. Depression
<b>Goal</b>	1. Provide hopeful and inspirational stories; 2. Guided talk down to boost mental well being 3. Provided Ruqyah section for protection, depression, frightened, against sihir and other general issues
<b>Subscription</b>	1. Some options are free for all users 2. Premium membership options: RM2.99 - 34.80 per item
<b>Ratings</b>	<b>Google play:</b> 4.9/5 with 4689 reviews, <b>App store:</b> 5/5
<b>Platform</b>	Android & iOS
<b>Release date</b>	December 24, 2019 - Version 4.9
<b>Features</b>	<b>Splash screen:</b> Create new account, sign up with Facebook, Log in <b>Home:</b> Select narrator (male /female) <b>Guided talk down: topics covered are anxiety,</b> 12 Lessons of how to deal and cope with several mental issues, Hope, stress, and fear <b>Build Playlist:</b> 11 types of Uplifting and motivational courses from notable scholars, experts, and public figures. <b>Total duration:</b> 9 hours (540 minutes) <b>View user's playlist</b> <b>Other's:</b> a. Sleep diary, b. Help, c. More Info, d. Settings

#### 4.4. Halaqah

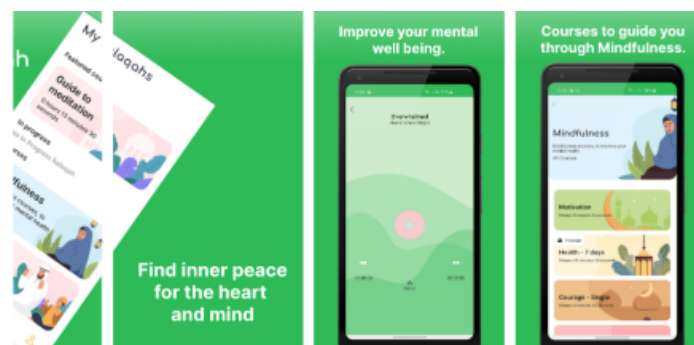


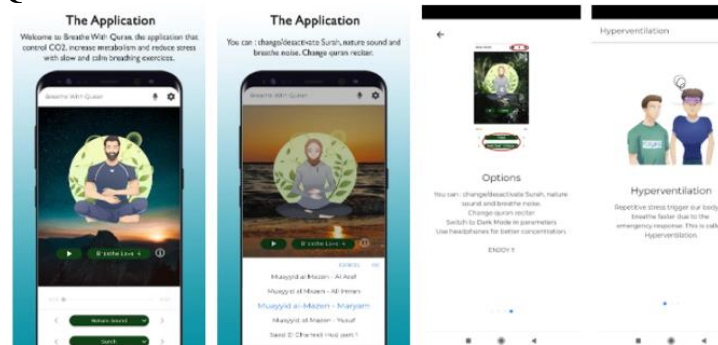
Figure 4: User interface of Halaqah (Source: <https://cutt.ly/fRHhmGe>)

Figure 4 depicts the user interface for Halaqah. Mental health issues are something that everyone has all experienced at some point in their lives. However, with a relaxed mind and re-align oneself with the source of all life, they experience tranquillity as a result. “Halaqah” is a digital spiritual circle where users may participate in dhikr sessions and guided meditations to bring tranquillity and peace to their hearts and mind. As well as adhkar, which immerses in a profound communal experience that helps alleviate the symptoms of modern living, it has produced several guided mindfulness sessions to help get through a tough time. Some functions of Halaqah are shown in Table 4.

Table 4: Functional overview of Halaqah

<b>Concerns</b>	1. Sadness, 2. Sleep, 3. Stress, 4. Depression
<b>Goal</b>	1. Provide Dhikr sessions to bring peace to heart, 2. Provide collection of Adhkar to reduce stress of daily life, 3. Mindfulness session, 4. Provides motivation courses to boost up mental well being
<b>Subscription</b>	1. Some options are free for all users 2. Premium membership options: RM18.99-91.99 per item
<b>Ratings</b>	<b>Google play store:</b> 4.6/5 with 30 reviews, <b>App store:</b> 5/5
<b>Platform</b>	Android & iOS
<b>Release date</b>	July 7, 2020 - Version 1.11
<b>Features</b>	<p><b>Splash screen:</b> Create new account, sign up with Facebook, sign up with google, Log in</p> <p><b>Courses:</b></p> <ul style="list-style-type: none"> <li><b>a. Mindfulness:</b> Total 50 courses to improve mental health, including overwhelmed, anxiety, courage, guide to meditation</li> <li><b>b. Purification</b> - 11 courses focus on anger issues, envy lust and death</li> <li><b>c. Dhikr</b> - Total 44 minutes and 25 seconds Dhikr to Allah and Salawat.</li> <li><b>d. Featured course</b> - Guide to meditation of 13 minutes 30 seconds</li> <li><b>e. Inspirational quotes:</b> Downloaded course to view offline</li> </ul> <p><b>Profile:</b> Update profile, account settings, Contact support</p>

#### 4.5 Breath with Qur'an

Figure 5: User-Interface of Breath with Quran (Source: <https://cutt.ly/vRHh0IH>)

This application has been developed to replicate exercises that will assist the body in returning to slow breathing, hence boosting CO<sup>2</sup> level and its beneficial properties. The interfaces are shown in Figure 5. An increase in CO<sup>2</sup> and a reduction in hyperventilation will aid in the treatment of anxiety, depression, and other degenerative conditions. It will also improve the quality of sleep, which will have a direct influence on regeneration and nervous system stabilization, as well as mood. Table 5 shows the list of functions in Breath with *Quran*.

Table 5: Functional overview of Breath with Quran

<b>Concerns</b>	1. Hyperventilation, 2. Anxiety, 3. Unstabilized nervous system, 4. Depression
<b>Goal</b>	1. Several breathing exercise to overcome mental illness such as anxiety, 2. Increase metabolism, 3. Reduce worry, 4. Stabilize nervous system

<b>Subscription</b>	Free
<b>Ratings</b>	<b>Google play store:</b> 4.4/5 with 27 reviews, <b>App store:</b> 4/5
<b>Platform</b>	Android & iOS
<b>Release date</b>	25 April 2021 - Version 0.0.27
<b>Features</b>	<p><b>Splash screen:</b> Choose narrator (male/female), Guideline on using the application</p> <p><b>Homepage:</b></p> <ul style="list-style-type: none"> <li><b>a. Calculate breathing level:</b> Select breathing level from 1-9 Sleep mode</li> <li><b>b. Select calming sound I:</b> Choose 13 types of calming sounds</li> <li><b>c. Select Surah:</b> Choose 19 surahs</li> </ul> <p><b>Settings:</b> Choose mode, activate breathe sound, Choose Interface</p> <ul style="list-style-type: none"> <li><b>a. Language:</b> Select language</li> <li><b>b. Nature sound:</b> Select volume of nature sound</li> <li><b>c. Calculate breathing level:</b> Breathe for 60 seconds and count</li> <li><b>d. Hyperventilation:</b> Learn technique to control and stop</li> <li><b>e. Sleep Mode:</b> Learn 4-7-8 technique and breathing lessons</li> </ul> <p>Account settings and Interface mode settings</p>

## 5. Conclusion

Mental illness may have been categorized into short-term or long-term, but it can shade some significant impacts on a person's present and future. The situation may happen due to the way of our life is rapidly changing, meanwhile we do not have enough well-thought-out plans to address these difficulties. Several strategies, methods, and medications are now being used to address this problem. As a result, we can see that the situation is changing and that more and more inventive ways are being developed to save sufferers. Many Islamic organizations are also stepping forward to promote optimism and awareness throughout society. It is proposed that everyone in our society work together more. Otherwise, we risk failing to save the people, and we must remember that youths are the nation's future.

While medications and clinical methods might be beneficial, living a normal and healthy lifestyle can prevent all these issues from occurring in the first place. For this reason, following a halal lifestyle is always encouraged in Islam. A halal lifestyle is aimed at people who desire to live a healthier and more tranquil life. Islam enlightens us on how to live a normal life by avoiding dangerous things that can hurt our mental health. Researchers in several journals have advocated for the use of Islamic methodologies in response to mental health crisis. In fact, non-Muslims can also learn about healthy living from Muslims. If a patient understands the difference between halal and haram lifestyles and acts accordingly, he can easily avoid future difficulties. Islam has a significant role in assisting Muslims in coping with difficult life circumstances, which aids in both the prevention and treatment of depression. As stated in the Qur'an, *"For indeed, with hardship [will be] ease. Indeed, with hardship [will be] ease,"* (94:5-6, Saheeh International), Islam encourages people to never give up hope and to seek peace, because Allah aids people who seek assistance for themselves.

In conclusion, it is suggested that everyone should prioritize mental health in the same manner that physical health is prioritized. As recommended by Islamic Teaching, we should also make an effort to follow Quranic verses and instructions. With knowledge of Islamic principles, adopting Islamic ethics and values can be beneficial in the treatment of mental illness, and we can all agree that it will be good to everyone.

## Acknowledgement


Authors have downloaded, used, and evaluated selected mobile applications from Google play store and App store.

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## Biodata

	<p><b>Murni Mahmud</b> is an Associate Professor in the Department of Information System at Kulliyyah of Information and Communication Technology, International Islamic University Malaysia (IIUM). Her research interest is Human-Computer Interaction particularly evaluation of Usability and User-Experience for Interactive System. She advocates for responsible use of technology and technology should be used as a tool to do good, spread the truth while promoting perseverance and resilience. She earned her Ph.D. from The University of Manchester, Bachelor, and Master of Science in Computer Science from the State University of New York which is currently known as Binghamton University.</p>
	<p><b>Suhaila Samsuri</b> is an Assistant Professor in the Department of Information System at Kulliyyah of Information and Communication Technology, International Islamic University Malaysia (IIUM). She has vast experience in the multimedia interactive industry and has been teaching for over 15 years. She earned her Bachelor's Degree from IIUM. Her Master of Science Degree is in the field of Medical Informatics and Multimedia Design was awarded by Universiti Putra Malaysia. Later, she earned a Ph.D. from Universiti Teknologi Malaysia. Her deep interest in Interactive Multimedia Design has inspired her to the establishment of GamesMy Studio, a collaborative project with the industry and IIUM for IIUM alumni entrepreneurial development. Her current research is focusing on Digital Games and e-Sports.</p>
	<p><b>Nahreen Zannat</b> is currently a final year student of Bachelor of Information Technology at the International Islamic University Malaysia (IIUM). With her teammate, Nadia Nowshin, she has developed a mobile application to support elderly people in Bangladesh for her Final Year Project. The application has the potential to ease the elderly users to communicate well with family members during the pandemic Covid-19. She is nourishing her interest to embark on research on the use of technology for sustainability.</p>
	<p><b>Nadia Nowshin</b> is currently a final year student of Bachelor of Information Technology at the International Islamic University Malaysia (IIUM). For her Final Year Project, she has developed a mobile application to support elderly people in Bangladesh with her teammate, Nahreen Zannat. The application was designed to enable elderly users to communicate easily</p>



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