



MUSLIMMEDS: A RECOMMENDER FOR MENTAL HEALTH SOLUTIONS THROUGH THE ISLAMIC SUPPORT SYSTEM

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THROUGH THE ISLAMIC SUPPORT SYSTEM

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**FACULTY OF ART , COMPUTING AND
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Saya sahkan bahawa segala bahan yang terkandung dalam laporan projek tahun akhir ini adalah hasil usaha saya sendiri. Sekiranya terdapat hasil kerja orang lain atau pihak lain sama ada diterbitkan atau tidak (seperti buku, artikel, kertas kerja, atau bahan dalam bentuk yang lain seperti rakaman audio dan video, penerbitan elektronik atau Internet) yang telah digunakan, saya telah pun merakamkan pengikhtirafan terhadap sumbangan mereka melalui konvensyen akademik yang bersesuaian. Saya juga mengakui bahawa bahan yang terkandung dalam laporan projek tahun akhir ini belum lagi diterbitkan atau diserahkan untuk program atau diploma/ijazah lain di mana-mana universiti.

25 February 2023

Tarikh

syahirah

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Perakuan Penyelia:

Saya akui bahawa saya telah membaca karya ini dan pada pandangan saya karya ini adalah memadai dari segi skop dan kualiti untuk tujuan penganugerahan Ijazah Sarjana Muda Kejuruteraan Perisian dengan Kepujian.

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(Puan Marzita binti Hj Mansor)



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“In the name of Allah, the Most Gracious and the Most Merciful”

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ABSTRACT

Mental health issues are arising nowadays due to the no-boundary nature of communication through the massive use of mobile and social media. Communication now is not limited to physical contact, but it is possible to be indirectly influenced, positively or negatively, through mobile devices. Because of this, society is becoming more aware of the importance of maintaining and stabilising emotional health as part of an individual's needs. In light of the significance of upholding positive attitudes and emotions, it appears that the widespread use of mobile as a communication tool can also be used to support individual emotions and aid people in regaining their sense of calm and self-love that may have been affected by negative perceptions received either in real-life physical communication in their daily lives or from the negative effects of virtual communication that they may have experienced. With that, this study aims to develop a mental health mobile application as a promising tool that promotes user engagement with positive values that can be considered as individual inner needs through the Islamic approach. Furthermore, this mobile app provides minor psychiatric treatment supplemented by music, surah, daily doa, and ruqyah shariah (incantations based on the Quran and prophetic traditions). The V-model methodology was used in developing this mobile application since it works well for smaller projects with well-defined requirements and phases completed one at a time. Perhaps this mobile app will encourage individual Muslims to remember Allah at all times, thereby indirectly providing a positive and stable mental health condition.

Keywords: Mobile mental health, Islamic perspective, V-shaped



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LIST OF ABBREVIATIONS

mHealth	Mobile Health
WiFi	Wireless Fidelity
GPS	Global Positioning System
NASA	National Aeronautics and Space Administration
App	Application
CBT	Cognitive Behavioural Therapy
SRS	Software Requirement Specification
SDD	Software Design Document
NIMH	National Institute of Mental Health
WHO	World Health Organizations
NHS	National Health Service
UI	User Interface
ESA	Emotional Self-Awareness
SDLC	Software Development Life Cycle
UAT	User Acceptance Test



LIST OF APPENDIX

A	GANTT CHART
B	SRS
C	SDD

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CHAPTER 1

INTRODUCTION

This chapter briefly introduces MuslimMeds based on the research background and research question, followed by the research objective, significance of the study and research scope. This final project is a mobile-based application, another alternative for mental health solutions from an Islamic perspective. The development of mobile communication devices such as smartphones and tablet computers has led to rapid growth in the field of mobile health (mHealth), i.e. the use of mobile applications that collect or deliver health information and data. These applications offer the potential for dynamic user and provider engagement in healthcare and a new way to improve health outcomes. These mobile applications could also play an important role in preventing depression and panic attacks. So the Muslim community needs a shift, especially in

mental health mobile apps that use doa, surah, ruqyah and other Quran and hadith-based methods.

In the second chapter, this thesis focuses on a literature review on the effectiveness of mental health apps, cognitive restructuring from an Islamic perspective, the importance of mental health in mobile apps and more. The third chapter discusses the methodology that was chosen and the rationale behind it.

1.1 Research Background

A smartphone is a revolutionary technology. Its many benefits include instant communication and access to information from anywhere through a simple, graphical, finger-based interface. With a smartphone, you no longer need to carry many devices, including a phone, camera, speakers, WiFi adapter and GPS. A smartphone allows the user to download and run applications (apps). The built-in sensors can provide measurements and contextual information, and by integrating communication into an app, the user needs few connectivity skills. In 2012, a consumer smartphone had more than 100 times the computing power of the average satellite (NASA 2012). Many felt that the use of a smartphone in psychiatry would enable new measures of patients' mental state and behaviour to aid screening, diagnosis, monitoring and treatment of patients (Glenn and Monteith 2014a; Mohr et al. 2017; Luxton et al. 2011), for example in bipolar disorder (Faurholt-Jepsen et al. 2014, 2018; Harrison et al. 2016). The future is often seen as one in which actionable data from apps, both recommended by psychiatrists and selected by patients, would be seamlessly fed back into the EMR, and that data from apps would provide clinically useful measures to clinicians and



immediate feedback to patients. Although many mental health apps are available for smartphones, their expected value has not been realised.

Most consumers find mental health apps through social media, web searches or word of mouth, rather than through professional recommendations (Schueller et al. 2018). Smartphone owners often rely on online app reviews, but these can be misleading. For example, none of the 25 most popular iPhone apps for anxiety and worry contained content consistent with evidence-based treatments (Kertz et al. 2017). Users gave good ratings to a very popular but inaccurate blood pressure app that was withdrawn from the market (Plante et al. 2018). Patients and clinicians may have different perspectives on the quality or usability of apps (Singh et al. 2016, 2019), including for bipolar disorder (Nicholas et al. 2015). In a study of the top-rated mental health apps from the Google Play and iTunes stores, scientific language rather than direct evidence was the most common strategy used to support claims of effectiveness (Larsen et al. 2019). Furthermore, there are many opportunities for unscrupulous app developers to manipulate the app rating process, for example by paying users to write reviews (Hill 2018).

1.2 Problem Statement

In recent years, the challenge of mental health has become even more acute in the face of an emerging multidimensional epidemic of modern times, particularly concerning drug problems, the crime of all kinds and the psychological and medical problems of acquired immune deficiency syndrome. The development of this mobile application thus highlights the lack of an Islamic approach to everyday applications.



The Islamic strategy for promoting psychological well-being is essentially based on the recognition of inherent human defects and emotional weaknesses and therefore requires systematic developments and constructive measures to overcome them. In daily Islamic practice, the believer recites the beginning of the Qur'an in the five times daily prayers and appeals to Allah to show us the right path, the path of those whom He favours and not the path of those who have angered Him and those who have gone astray. The daily and seasonal Islamic practices are helpful for the adjustment of the personality and the promotion of mental health

The Muslim population, especially in Malaysia, is growing and facing biopsychosocial, spiritual and economic challenges. Although Islam pays utmost attention to mental health stability, Muslims tend to underutilise mental health services, especially when it came to mobile applications. This matter entails that the lack of usability and availability of mobile applications for mental health can be a major obstacle for Muslims from an Islamic perspective. Muslims tend to forgo formal mental health services for various complex reasons, one of which is the lack of contextually effective services, but developing effective approaches can be difficult and takes time.

Given the opaque nature of the digital economy and the disruptions associated with rapidly evolving technological change, new ethical issues are arising in psychiatry from the use of technology. The classification of individuals based on big data may have long-lasting and negative non-medical impacts. The use of unvalidated apps, medical websites with poor quality information, or self-diagnosis and self-treatment may lead to medical risks, including a delay in seeking professional help (Ryan and Wilson; Armontrout et al. 2016).

1.3 Research Objectives

These are the research objectives for this project:

- i. To introduce a minor psychiatric treatment supplemented by music, suras, daily doa and ruqyah shar'iyyah (incantations based on the Qur'an and prophetic traditions)
- ii. Developing spiritual healing applications for youth
- iii. Testing the functionalities of the developed prototype

1.4 Research Questions

These are the research questions;

- i. What is the main problem related to mental health and Islamic spiritual healing?
- ii. How can this mobile app (MuslimMeds) be developed?
- iii. Is the app easy to use for users?

1.5 Significance of the Study

This project aims to develop a mobile application that acts as a referrer for mental health solutions through the Islamic support system. This mobile application also includes all multimedia content such as text, audio, image, graphics and video to interact with the user. The main content is a surah, daily doa, music and targeted mental



health information. Therefore, this project briefly explains the requirements to be considered when developing a mobile application that focuses on mental health from an Islamic perspective.

There are two sides to the user perspective, the first being adults. Provide a supportive solution for adults to create awareness that they should seek appropriate treatment due to the stigma of mental illness. Therefore, psychotherapy is very necessary because it helps to maintain the integrity of development that leads to healthy growth and the ability to better adapt to the environment.

The other perspective is that of the students who will benefit the most as technology evolves with today's youth and easy access to instant information. This mobile application also serves as another alternative to the cognitive behaviour of self-healing.



1.6 Limitations of the Study

When conducting a study on mental health mobile applications, several limitations should consider:

- i. Limited generalizability: The findings of a study on a specific mental health mobile application may not be generalizable to other applications or populations. Factors such as cultural background, age, gender, and socio-economic status can all impact how users interact with and respond to different mobile applications.





- ii. Selection bias: Participants in a study may self-select based on their interest in mental health or the specific mobile application being studied. This can lead to a biased sample that is not representative of the general population.
- iii. Reliability of mobile data: The data collected from mobile applications may not always be accurate or reliable, as mobile devices can have technical issues, connectivity problems, or user errors.

1.7 Conclusion

This first chapter provides an introduction to give an overview of the research study and the proposed time management system for the MuslimMeds mobile application. In this chapter, the research background highlighted different perspectives on the quality or usability of apps. The research objectives to be accomplished and questions to be answered at the end of the research study have also been clearly stated. This chapter also describes the scope of the proposed time management system and the significance obtained from the research study.

