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The Development of Self-Care Therapy Application: A pilot test

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Abstract: Due to the increasing of COVID-19 cases, countless of people loss their source of income. This happens unexpectedly because world's economy is collapsing due to the Movement Control Order (MCO). Not only for the worker, but students are also affected because online learning method has been running for almost a year now and students may feel stressed out. Self-care therapy application has been developed to help people manage their mental health condition and train people to calm their depression and anxiety. The ADDIE model has been used to build this application. This application will help people and give strength for all people to keep on going and not giving up. In future, people will know how to reach out for help when they are feeling sad or stress with everything.

Keywords: Self-care therapy application, ADDIE model, Depression, Anxiety

1. Introduction

Based on some research and article, the COVID-19 cases had affected some individual no matter how old they are [1]. As the Covid-19 cases are increasing day by day, some people find it hard to survive as they have to face many challenging moments such as online learning method, fired from their workplace, decreasing sales income and so on. Due to the collapsing of economy, most companies are cutting off their budget by dismissing some of the workers. Not to mention, students also are learning through online platform in order to lessen direct contact. This is an enough proof that an individual may feel the pressure throughout time that can damage their mental health [2].

As stated above, this economic recession gives impact to the financial that make people battle to keep alive every day. As the number of people that are affected keep on increasing, everyone feels that there is no hope for them to stay on the track because of the never-ending Movement Control Order (MCO).

1.1 Mobile application

In this era, everyone is using smartphone to communicate, exploring social media, or do their work. As a result, mobile application enables people to use it easier and people that lives in developed country always improve themselves and produce new product of IT infrastructure [3]. Mobile applications are utilizing on a hand hold mobile device which is friendly-portable, friendly-user and can be used everywhere [4]. Countless of mobile applications and categories that can entertain people on their free time and it can be used to release their stress and they are free to use.

1.2 Depression and anxiety

Depression (major depressive disorder) is a popular and significant medical illness that gives bad effect on your well-being and how you control your feelings and mind [5]. This illness can make you feel unmotivated and lose hope in everything. Those who suffered with major depressive disorder tend to do self-harm that can lead to suicide in the end. Depression symptoms can be dissimilar from minimal to critical [6] such as having insomnia, thoughts of death and suicide, feeling sad, and many more. These symptoms must happen two weeks in a row for you to make sure that it is depression and seek help from the doctor.

Anxiety happens when you are facing too much stress and problem. This illness can be dangerous when it affects people's health every day that makes people feel pressure and cannot endure it anymore then the anxiety will turn to a disorder [7]. There are many types of anxiety disorders such as panic disorder, phobia, social anxiety disorder, and many more. This illness can be detected by increasing of heart rate, rapid breathing, cannot concentrate, and also trouble to fall asleep.

1.3 Depression and anxiety preventions and overcomes

Everyone deserves to live their life happily with positive thoughts and healthy lifestyle. There are many ways for people to cope with depression and anxiety. Regular exercise can help to change their lifestyle to more productive on their day. When they feel overwhelmed, they can talk to their friends or family or listen to happy music. Different people will have their own coping mechanism, they should find their own so that they can survive this illness. Not to forget, people who suffered with this illness should take their medicine according to their doctor's suggestion.

2. Pilot Testing

The reports detailing research of article and survey were collected from various categories of students, private sector and public sector. The total number of respondents are 96 people consist of the public people ranging from the age of 15 to 50 years old. The result represents to the **Table 1** and **Figure 1.**

2.1 Survey results

Table 1: Opinion on this application whether it is required or not

Scale frequency	Respondent	Percentage
Yes	85	88.5%
No	11	11.5%

Figure 1: Opinion on whether this application is required or not

Based on **Table 1**, almost 90% of people agreed to establish Self-care therapy application to help overcome depression and anxiety in order to manage emotional problems. Most people are aware of depression and anxiety disorders. Additionally, research shows that the MCO for the COVID-19 pandemic has a huge impact on depression in Malaysians. [8,9]

Table 2: Respondents seek advice from psychologist

Scale frequency	Respondent	Percentage
Yes	91	94.8%
No	5	5.2%

Figure 2: Respondents seek advice from psychologist

A detail of respondents which is 94.8% who do not consult with a psychologist with mental issues are indicated on **Table 2** and **Figure 2**. Most individuals with depression and anxiety evaluate public opinion make them unpleasant to meet psychologist. Not only that, there are community have a negative stance on persons with mental illness disorder. [10]

Table 3: Questionnaire causes of mental disorder

Statement	Yes n(%)	No n(%)	Unsure n(%)
Relationship issues are among the causes of mental health problems	15 (15.6%)	43 (44.8%)	38 (39.6%)
Bad memories and negative mind occurrence of depression and anxiety	60 (63.2%)	22 (23.2%)	13 (13.7%)
Depression causes the usage of cigarettes and alcohol	6(6.3%)	89(93.7%)	0(0%)
Daily activities disrupt mental problems	23(24.2%)	46(48.4%)	26(27.4)
Lack of support to recover after illness, injury, or other hardship lead to mental health problem	59(61.5%)	24(25%)	13(13.5%)
Feel terrible and feel like a failure and embarrassed the family	26(27.1%)	43(44.8%)	27(28.1%)
Work problems among workers possible to depression and anxiety	60(62.5%)	29(30.2%)	7(7.3%)

According to **Table 3**, research shows that mental disorders, depression and anxiety have various potential reasons to people. The mental health problems that occur involve a wide range of ages. Hence, this app was developed to prevent the problem of depression and anxity from getting worse.

3. Results and Interfaces

Based on the questionnaire that we have conducted and had been responded by 96 of people, we developed an app that can help users to identify their level of mental health and become an early treatment. Based on the observations, almost half of the respondents had symptoms or almost suffered from mental illness. However, the percentage of respondents who have the awareness to see a doctor about their problems is very small. This proves that people are still sceptical of the issue of mental illness. With the availability of applications such as 'Self -care therapy', such a platform can be early prevention, diagnosis, primary treatment, supplementation for people therapy, and post -treatment condition management. The results of our study also found that smartphone-based therapy had a positive effect on individuals with mild to moderate depression.

Moreover, clinical treatments such as relaxation training, CBT and attention are limited by cost and availability although they can reduce anxiety symptoms. Thus, the created app can be an early treatment for patients at their critical time. Therefore, we have built a 'Self -treatment therapy' application with software that matches the respondents' feedback in the Google Forms created. The app has been developed with emphasis on several important elements such as bold and attractive color themes, user friendliness and simplicity. [11]
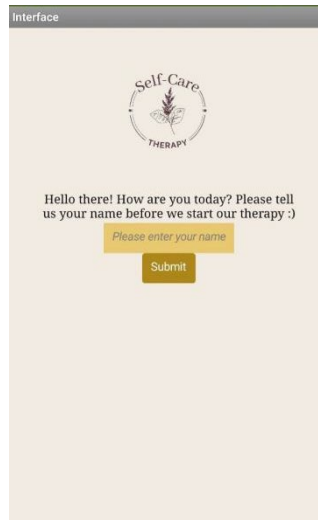
3.1 Interface of Self-Care Therapy

Figure 3 : Interface

Figure 3 shows our first interface that will require user to submit their name. After submitting their name, they will be navigated to the second interface which is the main page.
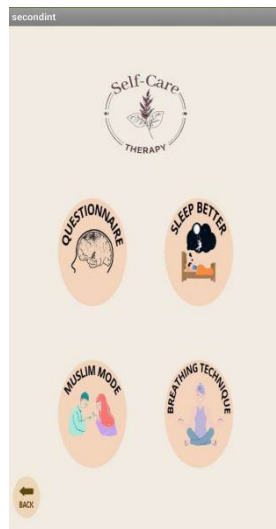

Figure 4: Main page

Figure 4 is the main page which consist of all the features that the application contains which are Breathing Technique, Questionnaire, Muslim mode and Sleep better. User are required to click the graphical button.
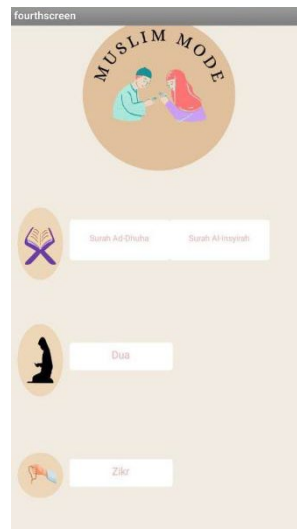
Figure 5: Main page Muslim Mode

Figure 5 is the main page for Muslim mode which consist of three sections which are Dua, Zikir and Surahs. Then, user choose any desired page.
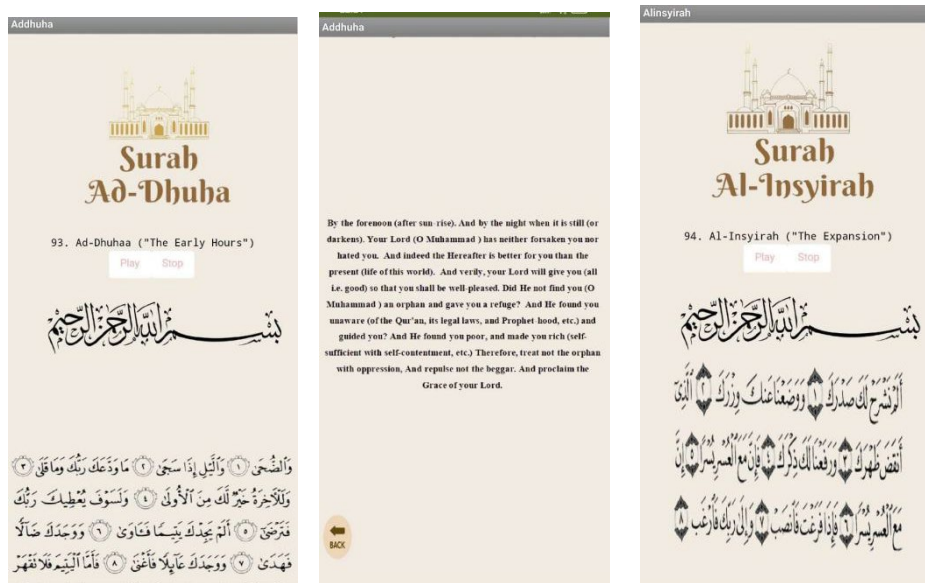

Figure 6: Interface for Surahs

Figure 6 shows the Surahs that are available in the application. User can click 'Play' or 'Stop' button to control the audio.
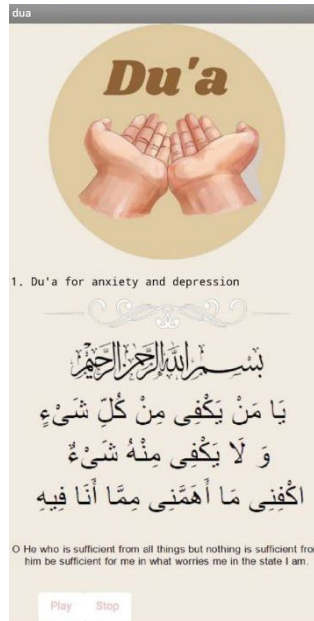
Figure 7: Interface for Dua

Figure 7 shows the Du'a that are available in the application. User can also play the audio while reciting the Du'a or meaning.

Figure 8: Interface for Zikir

Figure 8 shows the list of Zikir that are available in the application with the accompanying audio.
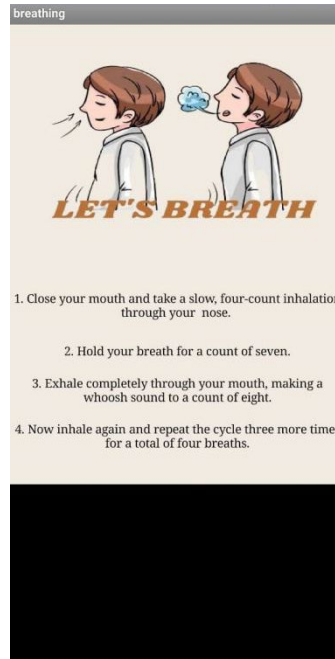
Figure 9: Interfaces for Breathing technique

Figure 9 shows the interfaces for Breathing technique which consist of brief explanation about how to breath properly and a guide video.
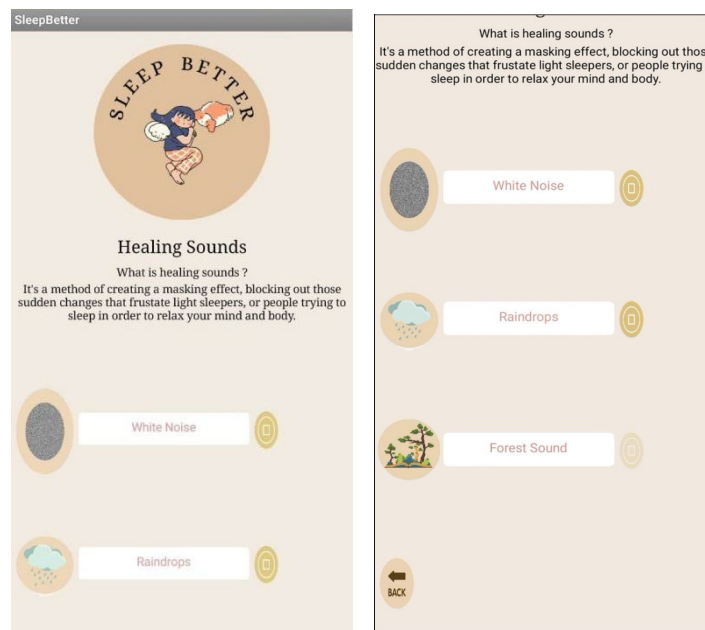

Figure 10: Interfaces for Sleep Better

Figure 10 shows the interfaces for Sleep Better page. Sleep Better page consist of four kinds of sounds to help user sleep better such as White noise, Raindrops, Forest Sound and Wave Sound. The purpose of the chosen sound is to help the light sleeper or people that are struggling to sleep able to block any thoughts or noise in order to create calm and peaceful surrounding.
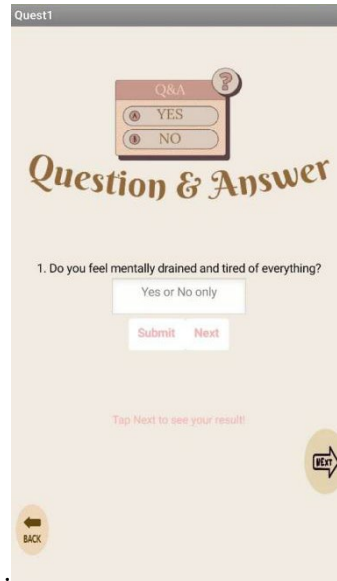
Figure 11: Interfaces for Questionnaire

Figure 11 shows the interfaces for Questionnaire page. User will get to answer 10 questions to determine their mental health condition. The result will then display at the bottom of the screen.
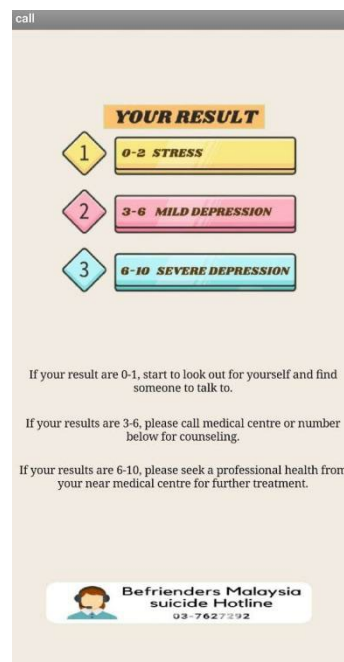

Figure 12: Interfaces for results and call function

Figure 12 shows the interfaces for results and call function. User will get to check their results based on the given table. Brief explanation or advice displays at the bottom of the table. The application also consists of two official number of medical centre for Mental Health issues. User can click the 'Call Me' button to directly make a phone call.

4. Conclusion

In conclusion, this application has been successfully developed in helping the public to cope with their mental health as an early treatment or post-treatment. It also can be accessed wherever they are and available in both IOS and Play Store. Mobile application is a bright new field that will continue to grow in medical field as more improvements or elements were created. The reality is that for the next generation's busy culture, convenience is everything. In addition, 'Self-care therapy' application enable the society to learn more about mental health issues as the topic is not quite exposed in this era. This application will give hope and strength for all people to keep on going and not giving up. In future, people will know how to reach out for help when they are feeling sad or stress with everything.

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