iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 10 **Issue:** VII **Month of publication:** July 2022

DOI: https://doi.org/10.22214/ijraset.2022.45600

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue VII July 2022- Available at www.ijraset.com

R Care: Mental Healthcare Using Mobile Application

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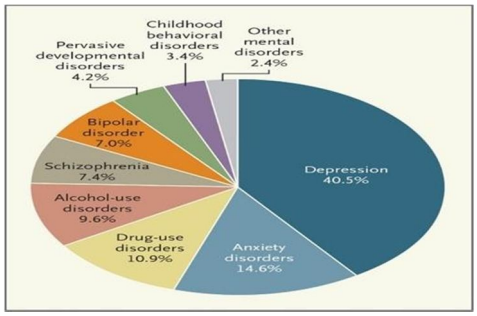
***Abstract:** There has been increasing interest in the use of smartphone applications (apps) and other consumer technology in mental health care for a number of years. However, the vision of data from apps seamlessly returned to, and integrated in, the electronic medical record (EMR) to assist both psychiatrists and patients has not been widely achieved, due in part to complex issues involved in the use of smartphone and other consumer technology in psychiatry. These issues include consumer technology usage, clinical utility, commercialization, and evolving consumer technology. Technological, legal and commercial issues, as well as medical issues, will determine the role of consumer technology in psychiatry and hence there is need of such applications that are ableto diagnose the user on the real time and give an alternative solution and in this case the application to be a mental healthcare companion for the user To help the user to cope up with his/her mental health To make a user friendly environment for the user to interact and share Record the mood graph of the user and give him/her tips and suitable videos according to current mood of the user Keep the track of users mood in form of a journal and also analyses the current mood of the user and make a record of it Gives a proper information and alternatives to the user*
***Keywords:** healthcare, applications, technology, smartphone*

I. INTRODUCTION

In recent years, there has been increasing clinical and research interest in the potential applications for healthapps across a range of physical and mental health conditions. Adding impetus to this is a growing informal evidence base suggesting widespread attempts by consumers to at least try out health apps. In a 2018 international consumer survey of adults, approximatelyhalf of respondents reported having used a health app, athreefold increase since 2014. Our idea of the project isto create an interactive app for the people who need helpto cope up with mental health. App will record the person's mood and suggest some good exercise to perform. It will have a graph type record of the user. App has a journal that user can use for writing. It also provides some tips and videos to improve the mood ofthe user and be a perfect mental healthcare companion.



Fig, 1: Pie chart on survey

So, in the following chart we complied the data that how many percent of people are affected by some kindof mental health issues in the following year and it's not a minor problem that should be ignored and it should we given proper attention

II. PROBLEM DEFINITION

As we know coping up with mental health can be difficult despite the stigma, especially in these stressful times. They face a problem that they don't know where to start learning about improving their mental health and seeking professional help is also difficult for being expensive and inaccessible due to family views as well. We aim to aid in making a safe space for people in need of a secure environment to share and be able to keep a track of their mood and also having some alternative ways to improve his/her mental health.

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III. MOTIVATION

Mobile apps hold promises for serving as a lifestyle intervention in public health to promote wellness and attenuate chronic conditions, yet little is known about how individuals with chronic illness use or perceive mobile apps and there has been a lot of mental health problems these days because of the current pandemic situation so it has been a need of such application that will analyze and cope up with one's mental health there are many apps applications available but they are not much accurate or feasible for the users and hence we are looking forward to fill out those gaps and make a much more better app to help the people who needs a mental health support.

IV. LITERATURE SURVEY

After looking into many research papers and websites related to this we found out

1) After reviewing some research papers, we got toknow that there are many applications availablebut they are all not accurate and not interactivewhich makes them almost useless

2) The loop holes found were the app available doesn't look like an App that would help usersto cope up with one's mental health after doinganalysis on the following application it was found out 5 out of every 10 users didn't use theapplication or uninstalled it right away as they felt it was not effective

3) In such case our project is offering users ajournal with a notification and keeps the track of the user's mood and shows him tips andvideos to help him/her to cope up with their mood

4) Also, in other applications it was difficult for them to keep a track or record in the mood swings of the user and we are planning onimplementing a mood graph for the users inputto overcome the following problem

5) In other apps the instructions to use the app wasnot clear and hence the user doesn't use the appwhere are we are planning to make the app userfriendly so it's feasible to use

V. PROPOSED DESIGN

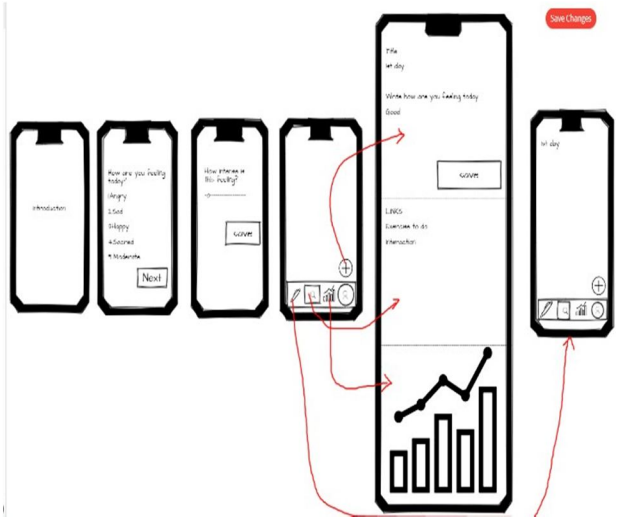


Fig. 2: UI design of the project

So this is the base of the project we have thought so farwe thought of an interactive app and interface where the user will be notified and asked how his or her mood is at that time and keep a track of it, in the beginning we will have a small intro for the app to display it features so it will be more convenient for the user so the base structures includes of a homepage that leads to a journal in with the user has to input the data to like an analysis of their mental health without them knowing so the idea used in this method is that the user has to write and interact with the app to tell how his/her day has been going after that the user will be asked about how they are doing and also maps a graph based on theuser mood showing elevation and deviation in the graph also the second option will help user to cope up with the following mood for example if the user is diagnosed in sad/depressed mood some cheerful stuff or a secondary tip or article to see if the user is really having the mood he/she had input and finally there will be a notification system to keep user interacted as well as not force user to record the mood.

VI. RESULT & DISCUSSIONS

The analysis of the literature demonstrated that mindful meditation was most applied in mental healthintervention programs using mobile apps. Other intervention programs included cognitive behavioral therapy apps, complex programs made up of a varietyof different components, and apps based on the stressmodel and breathing exercises. Mental health apps encouraged awareness of self and provided information pertaining to the user's current status, and were comprised of components such as music, meditation, breath work, quotes, videos, nature sounds,and health information. Such apps reduced stress, anxiety, and depression and improved well-being, but faced challenges in that there were only a small number of intervention studies, making the generalization of the study findings difficult. They may be helpful in the development and application of mobile apps for adults as it's not very feasible for someone to go to a doctor or psychiatrist as the mobile application would provide a self-diagnosis feature and an alternative measure to deal/cope up with the following problem.

VII. SCOPE OF PROJECT

Increased understanding of the complex issues surrounding consumer technologies is needed to successfully integrate apps into the practice of psychiatry. New methodologies must be defined and standardized to evaluate the efficacy of apps used for screening or treatment. Regardless of the technology platform, only some patients will use the app. Given therealities of app accuracy, efficacy, privacy, security, and the regulatory environment, and to maximize participation, a variety of technology platforms should be used for data collection rather than focusing on smartphones. Development should also include administrative apps that may increase care participation, and apps that educate about mental illness. App development requires multidisciplinary expertise in medical, legal, consumer, and technical areas, with physicians and patients heavily involved in all phases, and large-scale testing in clinical settings. Therefore, the need of apps in the medical field will be a must as the user can do a self-diagnosis and be assuredabout the changes they are facing.

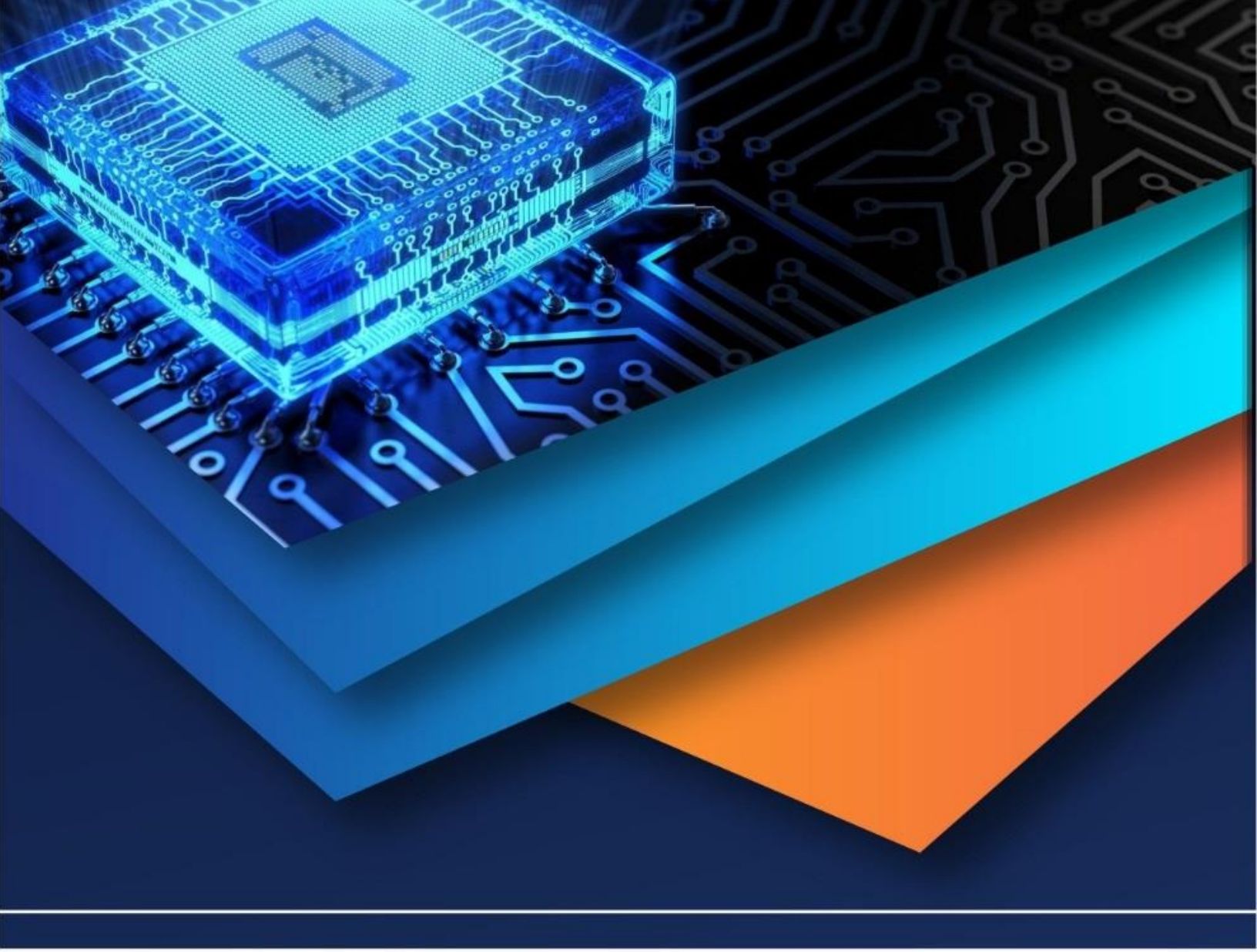
VIII. CONCLUSION

If the Mental Healthcare application prove to be effective as hypothesized, this will provide collateral evidence of their efficacy. It could also provide the benefits of:-Improved access to mental health services for people in rural areas, lower socioeconomic groups, and children and adolescents. Improved capacity to enhance face-to-face therapy through digital homework tasks that can be shared instantly with a therapist. It is also anticipated that this methodology could be used for other mental health apps to bolster the independent evidence base for this mode of treatment. Smartphone apps offer the potential for safeand effective treatment across a range of mental health conditions. However due consideration is required of the included therapeutic approaches (and how they complement care), clinical safety of app content, data privacy and security, likely ongoing engagement with the app, and how digital tools will integrate with existing ways of working. Importantly, any tool even those harnessing the most recent developments such assensors is likely much more impactful if used in conjunction with ongoing care, rather than replacing it.

Technology is well-poised to transform how mentalhealth treatment is delivered and accessed, but this transformation requires the combined mobilization ofscience, regulation, and design.

REFERENCES

[1] Lisa M Betthauser, MBA, PhD, Mobile App for Mental Health Monitoring andClinical Outreach in Veterans, July 15, 2019
[2] Pooja Chandrasekhar, Do mental health mobileapps work, 2018 Mar 23
[3] Michael Bauer, Smartphones in mental health: a critical review of background issues, current status andfuture concerns, 10 January 2020
[4] Jamie M Marshall, Effectiveness of Using MentalHealth Mobile Apps as Digital Antidepressants for Reducing Anxiety and Depression, November 22, 2019.
[5] Naziat Choudhury, Mobile apps for MentalHealth: a content analysis, November 2020
[6] Kit Huckvale, Smartphone apps for the treatment of mental health conditions: status and considerations, December 2020
[7] Won Ju Hwang, Research Trends on Mobile Mental Health Application for General Population: AScoping Review, 2 March 2021
[8] Rebecca Robins, Health App Use Among US Mobile Phone Users: Analysis of Trends by ChronicDisease Status, 19 December 2017
[9] Emil Chiauzzi, Mental Health Apps in PsychiatricTreatment: A Patient Perspective on Real World Technology Usage, 22 April 2019
[10] Tania Lecomte, Mobile Apps for Mental Health Issues: Meta-Review of Meta-Analyses, 29 May 2020



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