PACE: The All-In-One Mental Health App

"Feel Better, Think Better, Live Better."



By Sara Zaki & Allan Tazhenov

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ABSTRACT

The idea behind our app is to create a safe and nurturing space, online, for everyone (kids, teenagers, students, and adults) dealing with mental health issues; most especially, those dealing with ASD (Autism Spectrum Disorder), ADHD (Attention-deficit Hyperactivity Disorder), OCD (Obsessive-Compulsive Disorder), Depression, Anxiety, ASPD (Antisocial Personality Disorder) and learning disabilities.

RESEARCH

Mental health has been recognized as an important global issue; according to the World Health Organization (WHO) mental illness is a significant rising burden of disease in most developed countries, with a socioeconomic burden that might exceed that of cancer and cardiovascular disorders in future. In Korea, three out of 10 adults experience mental disorders more than once during their lifetime and records have shown that the country has the highest suicide rates among Organization for Economic Cooperation and Development (OECD) nations for 10 consecutive years, with 29.1 people out of every 100,000 having committed suicide.

A study on the burden of non-communicable diseases revealed that the economic cost of mental diseases is USD16.3 trillion across the globe, total medical expenses related to mental diseases accounted for about 3.4 % of total medical expenses within the same year. Significant interest in mental health has been on the rise not only in Korea but also worldwide. Major depression is thought to be the

second leading cause of disability worldwide and a major contributor to the burden of suicide and ischemic heart disease.

It is estimated that 1 in 6 people in the past week experienced a common mental health problem.

About 1 in 6 (17%) children aged 3–17 years were diagnosed with a developmental disability, as reported by parents, during a study period of 2009-2017. These included autism, attention-deficit/hyperactivity disorder, learning disabilities and others. Directly quoting the WHO, "Determinants of mental health and mental disorders include not only individual attributes such as the ability to manage one's thoughts, emotions, behaviors and interactions with others, but also social, cultural, economic, political and environmental factors such as national policies, social protection, standards of living, working conditions, and community support."

Our team has searched far and wide, researched, observed, and finally acknowledged the hard fact that there are not enough mobile applications, in the world, dedicated to helping people struggling with mental health issues. And the very few that exist, are mostly unhelpful, expensive and/or profit-driven mobile apps. It is our belief that everyone should have access to important resources related to mental health. And this is the problem that we have sought out to resolve.

STRATEGY

Some of the biggest challenges people with mental health issues face, include (but are not limited to) managing social interactions, maintaining a healthy routine, identifying moods and feelings, staying on medication, fully understanding the nature of their illness, recognizing a relapse, getting grounded in crisis, planning, and caring for themselves. This is how we intend to make a difference with Pace.

✓ Connect: With this app, they can easily find and connect with others in similar positions, having similar experiences and help one another. Talking about one's problems has proven to be an effective method of therapy, especially with all of the stigma associated with the topic of mental health. Many people find solace in sharing their problems with a friend or even a stranger.

Note: Our app will be accessible to everyone, however, in compliance with COPPA (Children's Online Privacy Protection Act), users must be 13 years or older to use the Community Forums as some content posted by older users may not be appropriate for children.

- ✓ Chill: Knowing when to step back and relax is not one of the strong points of most people suffering from a mental illness. With that in mind, we intend to incorporate some calming sounds and therapeutic imagery for meditation, retro games (to remind them of simpler times), crossword puzzles and so on.
- ✓ Curious: Most people dealing with suicidal thoughts often lose interest in the daily activities and little things that make life

worth living. We plan to keep them curious, interested and involved in their own lives, as much as everything else. There will be personality, career, and health tests such as the MBTI, Ikigai, and several other questionnaires which should be useful to the users. We will also be adding facts and information related to the topics of interest tailored to each user's personality.

- ✓ Cognize: "How are you feeling today?" This is a question almost no one answers to, with an honest answer, these days some because they would rather not share and others because they are unsure. Everyone needs to understand their emotions and feelings, each day, as they go through life. There will be several words and emoticons which represent feelings, so that the users can easily recognize their mood at any given time. And if the users are ever in crisis, there will be an 'SOS' button which will give directions on what to do, help them calm down and provide the contact information of the nearest mental health facilities, suicide and crisis hotlines.
- ✓ Care: Many people dealing with mental health issues are seeing a therapist or psychiatrist and sometimes that is just not enough to make them care for themselves. They could also be on medications and forget to take them. So, we will add a reminder for self-care, to help them track their medications (what they are and when to take them), set goals for the future, track their good and bad habits. They will also be able to manage their schedules right in the app, with a reminder to make time for self-reflection and rest.

- ✓ Create: We would like to encourage creativity in people, regardless of mental health status, because we strongly believe that anyone can do anything. There will be a journaling space to write down ideas or how their day was, a voice recording area to say something or even just to sing their hearts out.
- ✓ Challenge: We believe that a life well-lived is a challenge well-met. Whenever users feel ready, they can take up one of the many weekly challenges available on the app. "Go out of your comfort zone", "Try something new"; these are a few examples of what to expect as the challenges. There will also be daily affirmations and motivational quotes to help push users to become their best selves. In addition, we plan to incorporate a focus timer, specifically for those struggling with ADHD. It is expected to help them stay focused and achieve more with less procrastination.

DESIGN AND DEVELOPMENT

The plan is to design a distraction-free UI, which is quite rare these days, with ads and pop-ups lurking at every corner of most apps, in order to create the best user experience possible. For the entire duration of this project, we will be using Adobe Creative Cloud; XD, Illustrator, Photoshop, InDesign, and Canva, for the Front-end Design. As for the Back-end development, we plan to use Android Studio, Firebase, and Unity. To document our progress, the project files will be available on our Github repository which can be found here.

PRODUCTION SCHEDULE

Below is an estimated schedule of the project timeline:

PROJECT VISION



9-MONTH TIMELINE

MARCH

Strategy, Analysis, Planning APRIL

Conceptual Design, Wireframes, UX/UI Prototyping MAY

Software Design & Requirements
Specification

JUNE

Back-end Programming, Unit Testing JULY

Back-end Programming, Unit Testing AUGUST

Integration, System and Performance Testing

SEPTEMBER

Interim Progress Report, Re-evaluation OCTOBER

Usability Testing, Clean-up Code, Presentation Prep NOVEMBER

Final Report, Deployment, Presentation

EXPECTED OUTCOME

We expect this project to be a great addition to the world and make a difference, not only in mobile app production but also in the lives of the people whose struggles are not easily seen through the eyes. Depending on the outcome of this project, we hope to expand our platform, later on, to better accommodate others dealing with mood, behavioral and personality disorders such as Bipolar Disorder, BPD (Borderline Personality Disorder, DID (Dissociative Identity Disorder), and even Schizophrenia. Our main goal is to cater to the needs of the quirky, queer, and afflicted - make a better online world for them.

OUR TEAM

Our team is composed of two gifted underachieving Software

Engineers: Sara Zaki – UI/UX Designer / Project Manager; and Allan

Tazhenov – Programmer / Android Developer. We're both working in

collaboration with Professor Kim Young Hoon, our supervisor.

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