Mental Wellness App: Ideation

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Problem Statement

The inspiration

They say that necessity is the mother of innovation. With the COVID-19 and Circuit Breaker measures, SIngaporeans are encouraged to stay at home, telecommute from home and for students, engage in HBL. But as much as home is synonymous with comfort, being cooped up in the same environment for a month can induce unknowing psychological stressors with little room to vent these out. Many of our routines are disrupted, activities which we do to de-stress have been limited. Some are retrenched or suffered a paycut, and the climbing number of infections and death rates makes us concerned about our health and our future. Staying at home could also increase tensions within family members.

If these situations are starting to take a toll on us, imagine how much worse it is on those suffering from mental health issues. People from abusive families or suffer from anxiety and depressive issues. This is reflected in the increase in the number of calls for help on our national mental health hotlines by as much as 22% to 50% over the past three months compared to the previous year.

The target audience

Persons with mental health issues seeking help, persons vulnerable to deteriorating mental health due to COVID-19 pandemic, the general public.

The purpose

The Singapore Mental Health Study 2010 found that about one in eight Singapore residents will experience a mental health issue in their lifetime, and a majority of mental health issues occurs by the age of 26 years old. Yet, only a third of Singaporeans with mental illness will seek help and misperceptions towards mental health issues still exist. It is no wonder if you consider how our society often equates longer working hours to being more successful. Hence, we are pursuing this project with two purposes in mind:

1. Employ proactive measures to reach out and help those with or are vulnerable to mental health issues, and

2. Take actionable steps towards raising public education through accounts and sharing of personal experiences by persons with mental health issues.

The current systems workflow

As we start to seek therapy for our mental well-being, it serves a perfect opportunity to invest in long-term changes to the general perception of mental health and wellness in Singapore. When we think of mental health, the majority of Singaporeans often associate it with the SOS Helplines and the Institute of Mental Health. In this aspect, there exists a very shallow understanding as to what mental health encompasses, and that it has been ingrained that mental health is a 'disease' that needs treatment. It reflects on the values and stigma our society still associate with people suffering from mental health issues, and the fact that most of our treatment towards mental health is reactive (i.e. solving the problem when it happens).

The first point of contact most citizens have with the Singapore Association for Mental Health (SAMH) is through its website. If not for COVID-19, ordinary citizens would not have known of its existence. Currently, the National CARE Hotline system allows for voice-calling over the phones to seek solace, but with the increase in call volume, it can be taxing on the service staff having to handle such an unprecedented increase in call volume.

Having taken a look at the IMH National Mental Health Blueprint, it becomes obvious that while many of such programmes and infrastructures are in place to build a mentally resilient society, these efforts are obscure to the public.

The project overview
For this project for the Design Business Chamber open call, I've envisioned an app prototype that would eventually be under the operations of SAMH, in collaboration with the expertise from other mental health organisations in Singapore. These includes but not exhaustive of:
- Fei Yue's Online Counselling Service
- Institute of Mental Health
- Samaritans of Singapore
- Silver Ribbon Singapore
- Community Psychology Hub
- Big Love Child Protection Specialist Centre
- HEART @ Fei Yue Child Protection Specialist Centre
- PAVE Integrated Services for Individual and Family Protection
- Project StART
- TRANS SAFE Centre
- TOUCHline (Counselling)

The app will be promoted as a 'mental wellness' rather than a 'mental health' app, with the hope of shifting the mentality away from the perception that mental disturbances is a 'disease'. It puts the emphasis on self-care and that tending to one's own mental state will lead to the goal of a healthy mind. It is meant to be lightweight, focusing on the two purposes previously mentioned, with three key developmental outcomes of:
1. Providing avenues of help,
2. Building strong social connections, and
3. Developing mental growth/coping mechanisms.

Providing avenues of help
People express their thoughts and ideas differently. Some prefer to talk face-to-face, or over the phone, and some would rather prefer to text. For those with social anxiety for instance, having to meet up or interact verbally with someone would severely deter them from seeking treatment. For those who are desperate to meet people, teleconferencing is a viable option during this period where psychological treatment facilities are closed because it was deemed 'non-essential'. As a result, the official figures of people who are suffering from mental health issues are often under-represented. I feel that there needs to be more avenues for people with psychological distress to seek help. While maintaining SOS hotlines and also teleconferencing, introducing live chats or even an AI-assisted chatbot would provide that additional outreach to identify and offer assistance to those in psychological distress.

AI-assisted Chatbot.

The key highlight for this particular outcome would be an AI-assisted chatbot. The overarching idea is to offer guidance to soldiers throughout their NS journey. The concepts of Cognitive Behavioral Therapy (CBT) and nudge theory come into play. CBT is about encouraging patients to share about their frustrations to break the cycle of negative thinking, and Nudge Theory to suggest intervention measures to indirectly change their behaviours, or partake in certain desired actions. Positioning itself as a chatbot, it reduces the barriers to care for those who are less verbally expressive by providing an alternate platform to seek help in a conducive and confidential manner. Chatbots are perhaps the easiest avenue to talk about unspoken issues such as transgender or patriarchy in Singapore's conservative country because there is no human bias involved.

However, should the chatbot detect keywords involving suicidal thoughts, it would redflag the conversation and alert the relevant authorities so person-to-person intervention can de-escalate the conflict. With the aim of reaching out to those who fear the stigma associated with seeking treatment for mental health, and reducing the stress on our national CARE Hotline especially due to the shortage of psychiatrists and mental health nurses, chatbot should offer a solution so human intervention would be the last line of defence.

Building a strong social connection

Oftentimes, treatment is sought privately between individuals and trained consultants. However, these consultants will not always be there for them, and many times, these patients may not find the treatment provided to be useful. One way around this is to build up a community that these individuals can rely on and identify with on a regular basis. This is a growing need when Circuit Breaker measures results in social isolation. To foster greater community mental health resilience, taking it online can be a great way to bring people together.

Mental Wellness Zone:

'Be in the zone'. The basis of the mental wellness zones allows users to connect with each other through shared experiences related to mental health issues. Users are encouraged to maintain a personal online journal to share their thoughts and feelings, and should users make their posts visible to the public, it contributes to the ever-growing list of shared experiences where others can read and relate to. We see the success of websites like *The Mighty* which connects people through a shared experience of a health issue. If we could build up a similar online community in Singapore, it provides assurance for those mentally distressed as they are comforted by the fact that they aren't in this fight alone, and that there are people who

overcame this adversity. *This brings hope*. As it is a Singapore-based community, individuals are more likely to resonate with the posts and comments made.

For the general public, it provides them with insights into how the daily nuances in their lives have a different impact on those with psychological issues. It induces them to be more socially aware of this invisible population within the community as well as to urge them to take better care of their own mental wellbeing. In short, it helps to create empathy and a more mentally resilient society. It fulfills the DBCS's second challenge to encourage the community to support one another and look out for those socially isolated.

Developing mental growth/coping mechanism
It is a longstanding effort for us to proactively help those with psychological needs overcome their adversity. What we have noticed during this COVID-19 pandemic is that while there is a plethora of information online on how to deal with psychological problems, there is generally a lack of a committed and focused programme which actively guides users on proper implementation. The current lack of a trusted go-to source for psychological assistance worries them because they are uncertain if it would bear positive results.

Creating personalised mental wellness guidelines with Machine Learning:
It is beyond our control to dictate the source of their psychological distress. But if we could invest in a questionnaire that taps on Machine Learning that probes into their mental struggles, we could generate personalised tips and recommendations, even a structured programme/habit which they could follow. Being fully automated and self-served, this would act as our first line of defence by identifying and providing them free targeted mental wellness guides. It helps build the public's trust towards the mental health system especially for those who have long doubted the effectiveness of such treatments. They would be more receptive towards approaching SAMH for help. In addition, putting solutions and recommendations out there helps those who may face potential mental distress to know about the ways to de-escalate it before their condition deteriorates. This proactive approach helps to reduce the strain on the psychological care system especially in times of crisis, keeping Singaporeans healthy in the mind during the global COVID-19 pandemic.

Conclusion

To re-imagine the way we work, live and play with regards to mental wellness. We have come so far together as a society in combating COVID-19. The invisible micro-organism has provided us insights to the cracks within our society, and brought light to issues that are often under-represented in our normal routines. May we take this opportunity to help Singaporeans achieve better mental wellness.