tithlee

Theme: **Are we ready for the next wave?**

Are our current healthcare and wellness measures sustainable?

1 Aug 2021 - Singapore, Hong Kong, India

Image Source

Team 40

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Problem Identified

Long-Distance Caregiving

PROBLEM DESCRIPTION

With the COVID-19 pandemic at large, long-distance caregivers working overseas are facing challenges in caring for their parents in India emotionally and medically.

1. **Personal Level** - How might Piyush, a software engineer living in Singapore with his wife and children, stay updated about the medical and emotional needs of his parents, who are living by themselves in India during the pandemic?

2. **Personal Level** - How might Rita, a marketing strategist working in Singapore since 2018, manage the stress of providing long-distance caregiving to her elderly mother in India during the pandemic?

3. **Personal Level** - How might Anita, a housewife in Singapore for 11 years, manage the guilt and helplessness of not being there for her chronically ill sister in India during the pandemic?
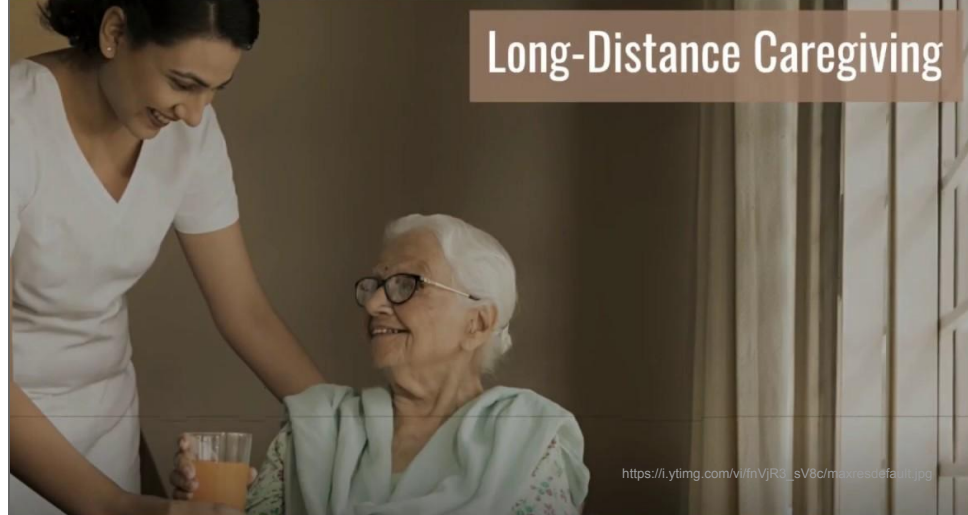
Urgency/Importance

WHY IS IT AN URGENT PROBLEM?

The 2nd wave of COVID-19 in India resulted in tighter lockdowns and travel restrictions. It is harder than ever for Indians living abroad to return and care for their relatives living in India.

Stuck abroad, these long distance caregivers **struggle to obtain information** about their relatives' physical health and emotional state as they are **no longer able to regularly visit and check in** on them. They resort to asking their relatives over phone calls to provide the information but these relatives tend to omit details because they don't understand the problem or want to avoid concerning the long-distance caregiver.

Due to these challenges, long-distance caregivers end up **feeling anxious, guilty and helpless** as they are suddenly unable to physically be there for their loved ones and get critical wellbeing information. We interviewed **5 different Indians in Singapore that have relatives they care for in India** who echoed this. With an estimated 307,875 Indian nationals working as professionals in Singapore, we expect the problem to be **massively impacting** a very large segment of the Indian population in Singapore.

https://www.dreamstime.com/asian-old-man-sitting-chair-reading-newspaper-morning-image154078296

User Persona - Long Distance Caregiver

Piyush works in Singapore but his elderly parents live in India by themselves

PROFILE & DEMOGRAPHICS

"Whatsapp was the main form of communication between my parents and I due to their lack of digital knowledge"

"I'm worried and guilty that my parents are sick and I won't be able to provide care to them."

"I try to call my parents twice a day but it is difficult to work and check in with them regularly."

"There was alot of emotional stress, especially hearing the (Covid) cases rising in India."

User Persona - Long Distance Caregiver

Piyush works in Singapore but his elderly parents live in India by themselves

PROFILE & DEMOGRAPHICS

Job Title: Software Engineer
Location: Employed in Singapore
Age & Gender: 34 year old, male
Family and Social Setting: Single child with 2 elderly parents in India
Income: $7000/month
Education: Bachelor of Computing at National University of Singapore

FEELINGS

Worries:
- If his parents are safe and their everyday needs are taken care of

Influences:
- Friends and family in India
- News, Social media and Online resources, e.g. Tech in Asia, Facebook, Slack, Google, The Hindu, YouTube

GOALS & VALUES

Goals:
- To get regular updates on how his parents are doing
- To manage caring for his parents while juggling work and family in Singapore
- To strive for a successful career
- To maintain his own physical and mental health

Values: Filial piety, Knowledge, Independence

Motivations:
- Data security and privacy
- Trustworthiness of service personnel
- Cost
- Ease of use for parents

PAIN POINTS

Fears:
- Parents falling ill due to COVID-19
- Losing his job
- Losing his parents

Frustrations:
- Unable to verify that parents are eating well, sleeping well etc.
- Not having anyone else to share his worries and stress

Challenges:
- Unable to check in with parents regularly due to work
- Unable to travel back to India due to travel restrictions
- Parents are not digitally savvy, only able to use whatsapp

Explorations - Ideation and affinity mapping
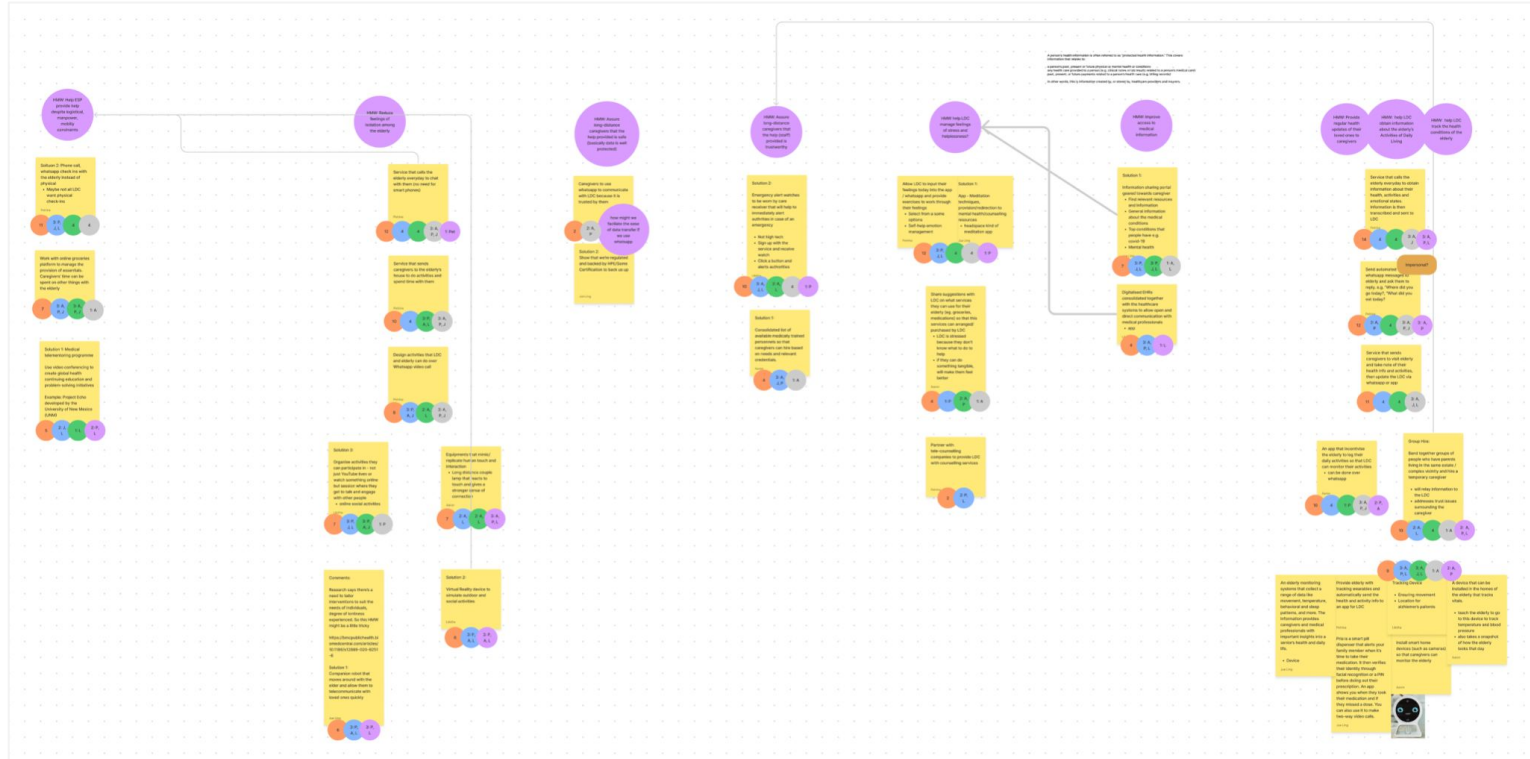
Based on our problem statement and research, we identified how might we statements to guide our ideation process. We then ranked each idea based on the criteria we identified and reflected on the next slide.

Explorations

Does not requires too high level of digital literacy

Is unique and innovative

Practical and biz viability - it can be executed successfully

Impact - causes significant postive change on the life of target users

Based on the challenge outlines and our evaluation, we decided on 4 criteria to prioritise the ideas we came up with. They are captured on the left side of the screen.

Based on these criteria, we conducted a prioritisation exercise. The prioritisation exercise was guided by the affinity mapping and 2x2 prioritisation matrix frameworks.

We first filtered the ideas through the affinity mapping process to find alignment amongst all group members as we all had different perspectives on the best way forward.

Once we narrowed down the ideas, we further narrowed the ideas to scope down the project based on the timeline we had. Here, we used a 2x2 prioritisation methodology and went through the exercise as a group.

Explorations - 2x2 prioritisation
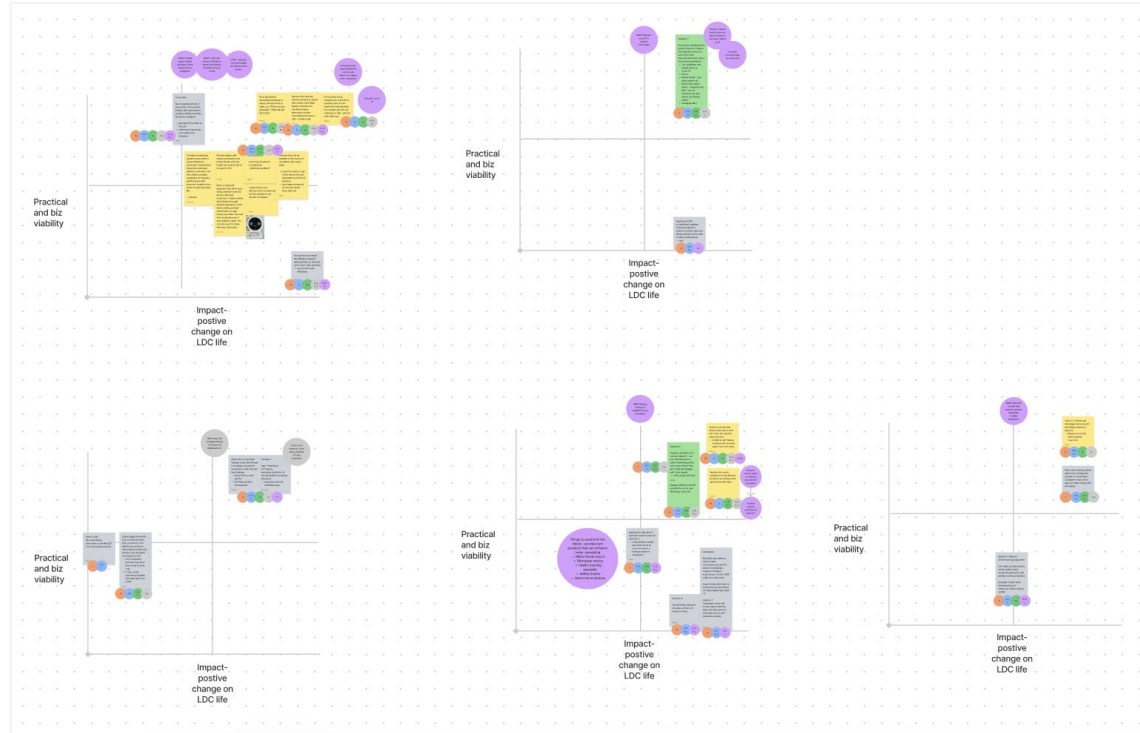
The greyed out boxes are the ideas we de-prioritised, the green boxes are the ideas we kept in consideration, and the yellow boxes indicate features we decided to include. In the next slide, we will share some of the solutions we deprioritised.

Explorations

SOLUTIONS 1

Digitised Electronic Health Records consolidated together with the healthcare systems to allow open and direct communication with medical professionals

Although this solution is unique and is highly impactful for users, we found that the team consensus was that solution was not very feasible. It would require buy-in from all medical system providers and is difficult to launch quickly. Given that a new wave of the COVID-19 virus can strike anytime, our team wanted to deliver a solution that can be implemented quickly and without the need to generate new technology.

We also found that this solution would require a decent level of digital literacy if we want elderly care recipients to be included in the solution. However, our research indicated that most elderly people only have basic digital literacy skills that is limited to using Whatsapp and certain social media platforms. For those reasons, this solution was deprioritised.

Explorations

Equipments that mimic / replicate human touch and interaction (i,e, Long distance couple lamp that reacts to touch and gives a stronger sense of connection)

This solution scored highly but we found that this had a lower impact to the user. This is because we anticipate that users would actively use when this when they first receive it as a result of excitement and curiosity. However, we anticipate that when the novelty of this item wears off, it may be discarded or forgotten.
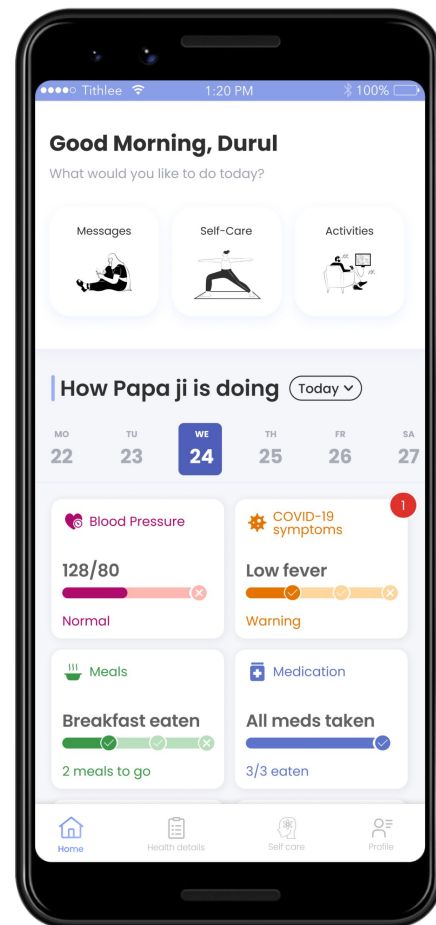
We also found that this solution did not align with other solutions we proposed. This would constitute a whole other product line and did not make sense for us to pursue this solution.

Final Solution & Innovation

tithlee

Titlee is a mobile service for Indian long-distance caregivers to stay updated on care recipients and manage the stress of care provision

Final Solution & Innovation

Feature 1: Updates on care receiver well being

PROBLEM 1:

During the COVID-19 pandemic, long distance caregivers **struggle to obtain information** (LDCs) about their relatives' physical health and emotional state as they are **no longer able to regularly visit and check in** on them.

- Tithlee collects well-being information from care receivers regularly **using an AI Whatsapp chatbot** and shares the information with long-distance caregivers (LDCs)

  - E.g. presence of COVID-19 symptoms, medications taken, meals taken, exercises done

- Caregivers customise the well being information they would like to collect from their care receivers by **filling in the care receiver's health details** on the app

- Based on the health details, the Tithlee app will **detect abnormalities** in the care receiver's wellbeing and **notify LDCs via push notifications**

  - E.g. care receiver did not eat their medication today

Final Solution & Innovation
Updates on care receiver's well being

Caregiver

Set up **care receiver health profile** in the Tithlee app
- Medical history
- Medications
- Aspects of well-being e.g. Activities Daily Living (ADL)

Select **type of information** to collect from care receiver and **frequency** of collection

Receives check-in messages from Tithlee Whatsapp chatbot

Receive notifications from Tithlee app if there are any **abnormalities in the receiver's well-being**, e.g. receiver displays Covid-19 symptoms

Check **daily summary of care receiver's well being** on the Tithlee app dashboard

Respond to the different prompts in the check-in messages

Care receiver

Final Solution & Innovation

PROBLEM 2:

Due to the challenges of providing care for their parents during the COVID-19 pandemic, long-distance caregivers (LDCs) end up **feeling anxious, guilty and helpless** as they are suddenly unable to physically be there for their loved ones and get critical wellbeing information.

Feature 2: **Self-care to cope with caregiving stress**

- Tithlee provides long-distance caregivers (LDCs) with **self-help mental well being tools** they can use to manage the emotional and mental stress of caregiving during a pandemic

    - E.g. Stressed, anxious, tired, sad

- Caregivers can input how they are feeling today and **receive tailored recommendations on self-care routines** that they can follow to manage the feelings

- The self-care routines are designed to be engaging, simple and easy to follow

Final Solution & Innovation

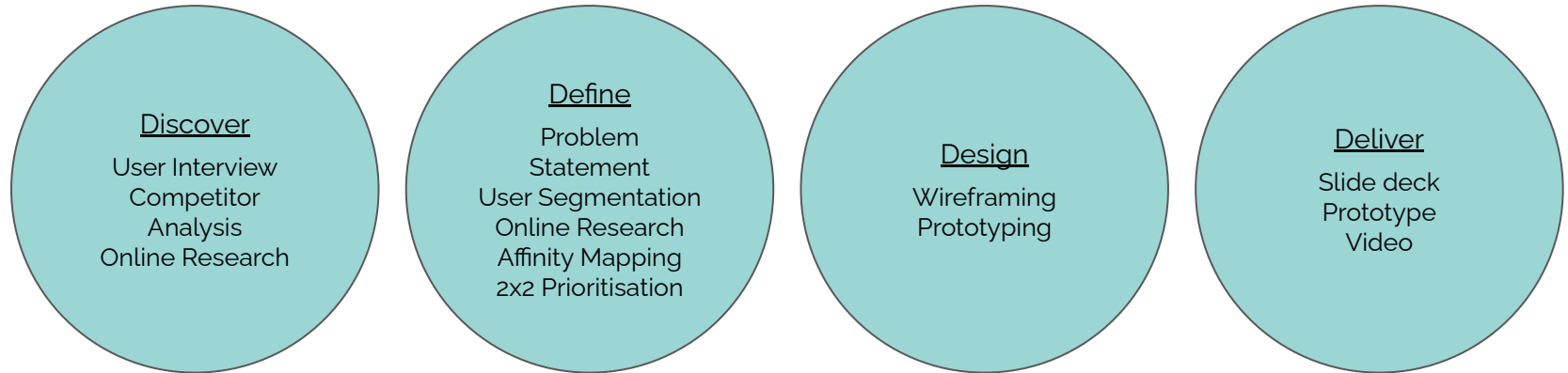# Self-care to cope with caregiving stress

Caregiver

Select **how they are feeling today** in the Tithlee app
- Simply click on the emotion icon that match how they feel

Receive **recommendations of self-care routines** that they can do to manage the feelings

Follow along the instructions in the routines to cope with the feelings

Design Process - Double Diamond Framework

<u>Discover</u>
User Interview
Competitor
Analysis
Online Research

<u>Define</u>
Problem
Statement
User Segmentation
Online Research
Affinity Mapping
2x2 Prioritisation

<u>Design</u>
Wireframing
Prototyping

<u>Deliver</u>
Slide deck
Prototype
Video

*We omitted the testing aspect of the design process in the interest of time

Design Process - Discover

USER INTERVIEW

Are there any challenges with taking care of your parents medical needs?

"As I live and work in Singapore, I cannot visit her since the COVID-19 pandemic. This causes a lot of mental and emotional stress for me as I am always worrying for her, especially hearing news on the rising Covid cases in India.

There was also once when my mum fell sick and had a fever. I was so worried but yet there was nothing that I could do. Luckily, my sister was able to visit my mum to ensure that she was recovering well, and most importantly that her fever wasn't due to Covid"

User interview transcript

Design Process - Define

DEFINE

We used two key frameworks to define our solution:

1. **Themes to insights**: During our research and interviews, we consolidated the response into set of themes during the affinity mapping exercise

2. **2x2 prioritisation matrix:**: We furthered narrowed our solutions shortlisted through the affinity mapping process to define our final solutions

The solutions and features we shortlisted are as follows:

1. WhatsApp check in on care recipient's emotional and physical health
2. Send alerts to LDC in case of an emergency to help them provide timely medical and emotional care
3. Mental health repository and support for LDC
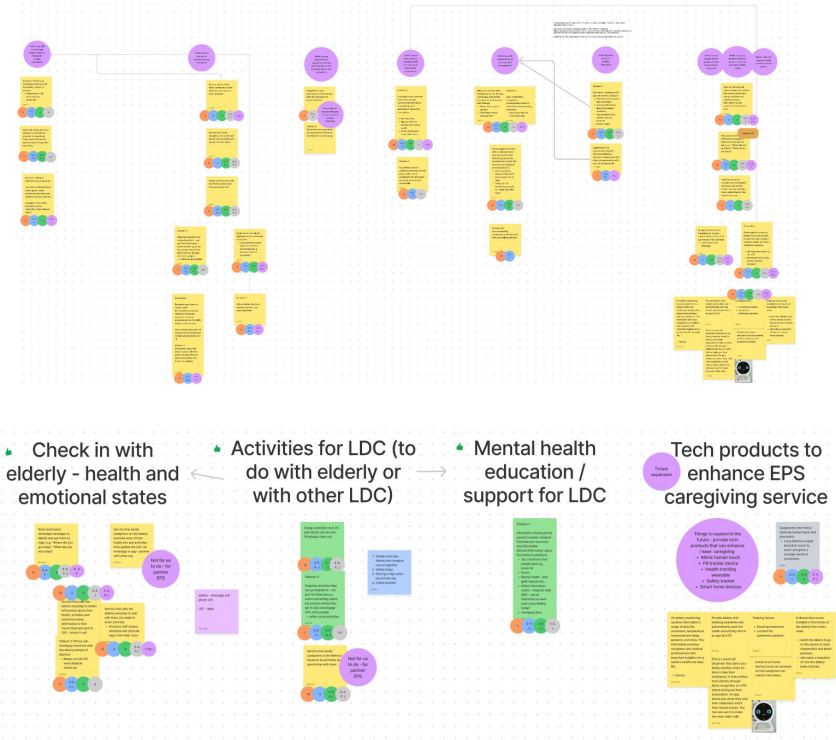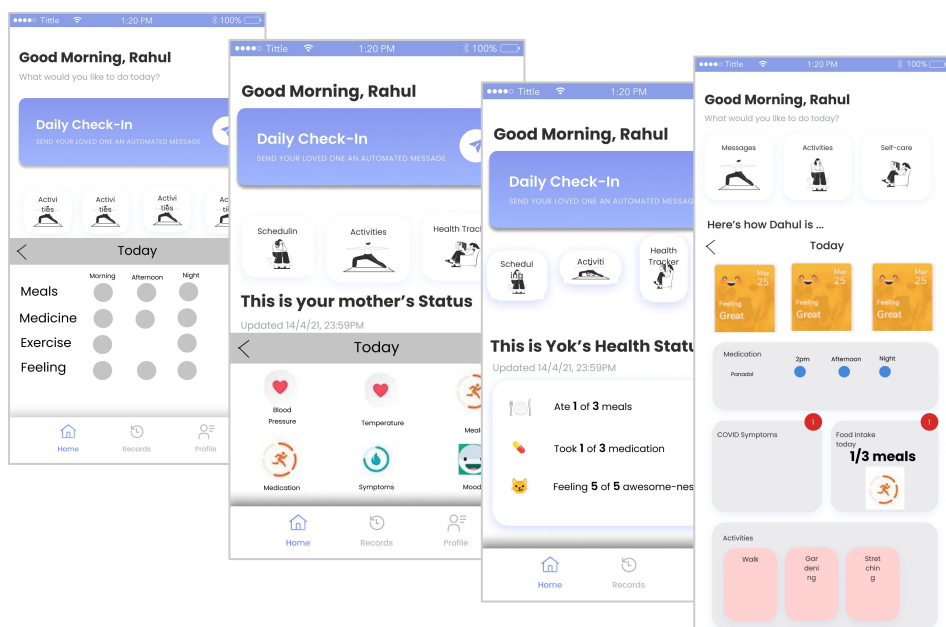
Design Process - Design

We followed through the Design Thinking **methodology - a divergent / convergent thinking process.**

We used **Figma** to create screen mockups for our solutions Tithlee app. We researched on UI of exiting healthcare Apps and most used Apps in India, and referenced them in our development of beta prototype. .
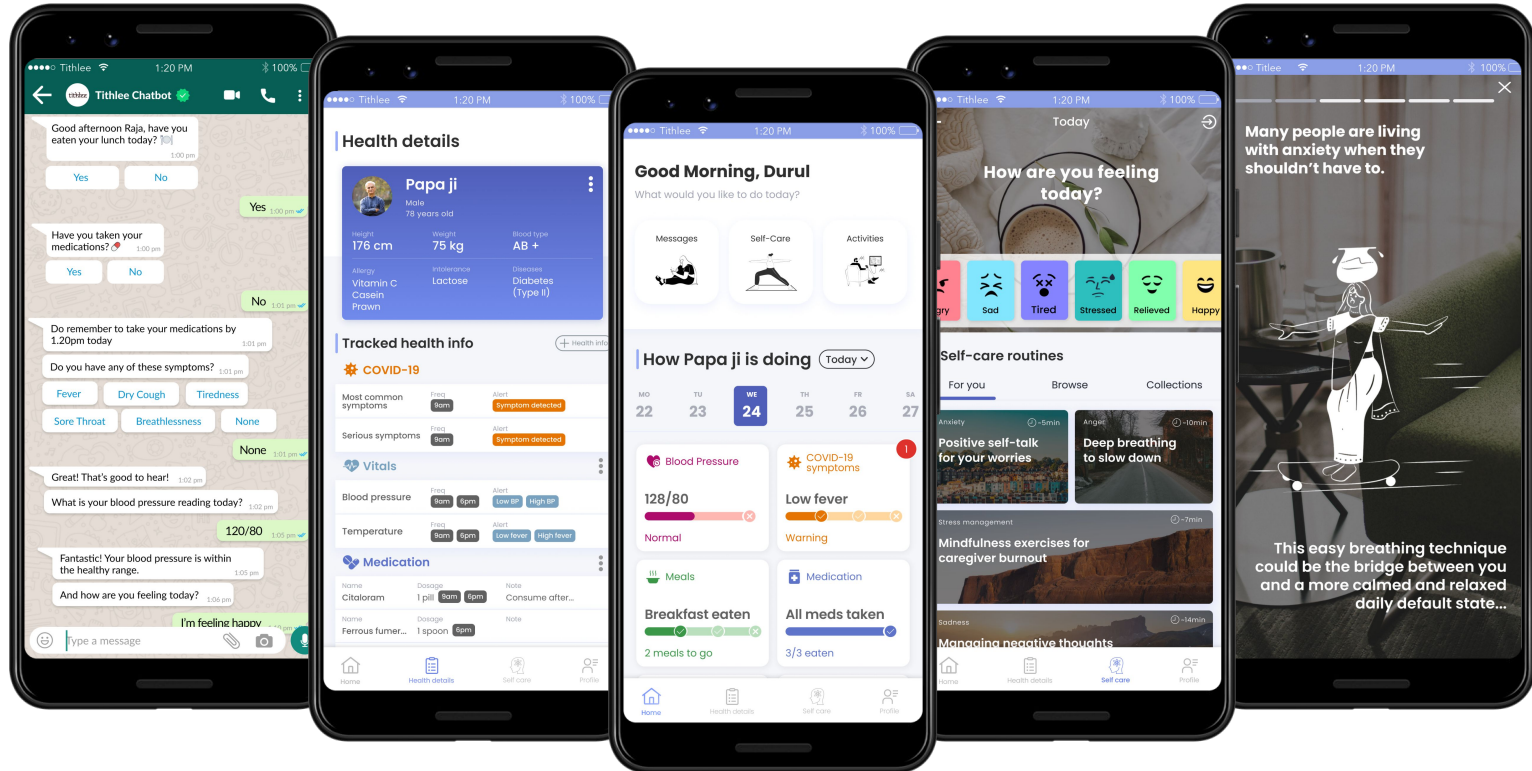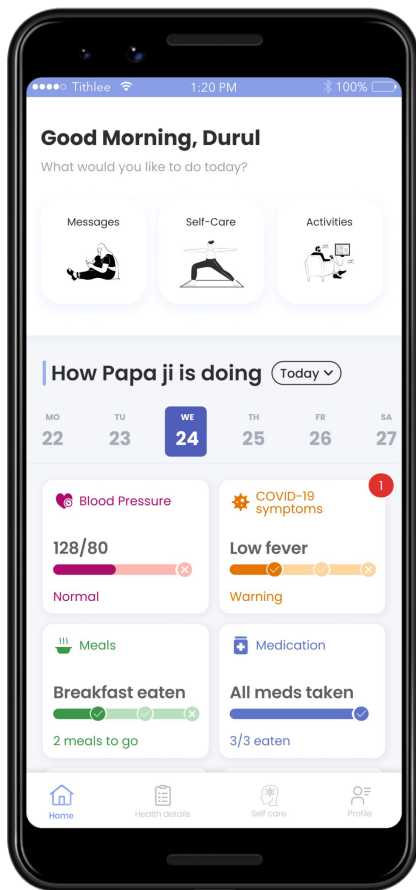
Research
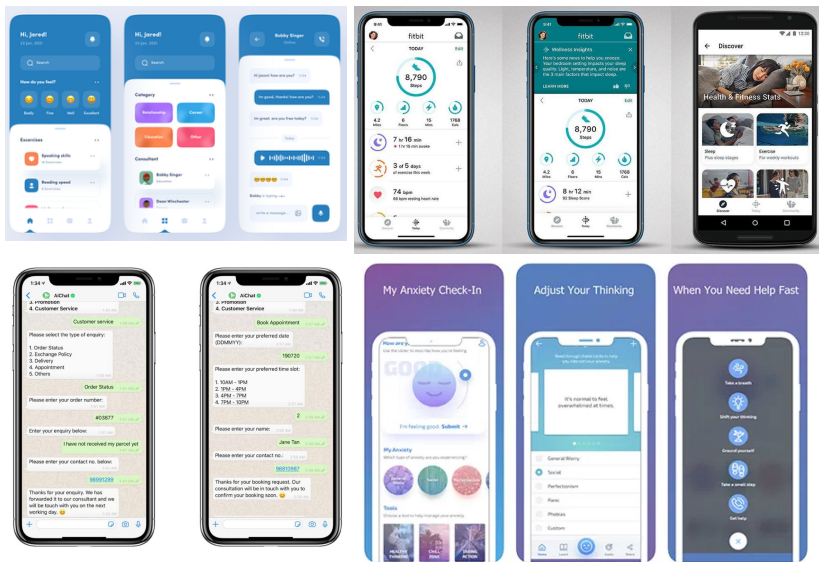
Prototype iterations

User Experience - Tithlee app & chatbot
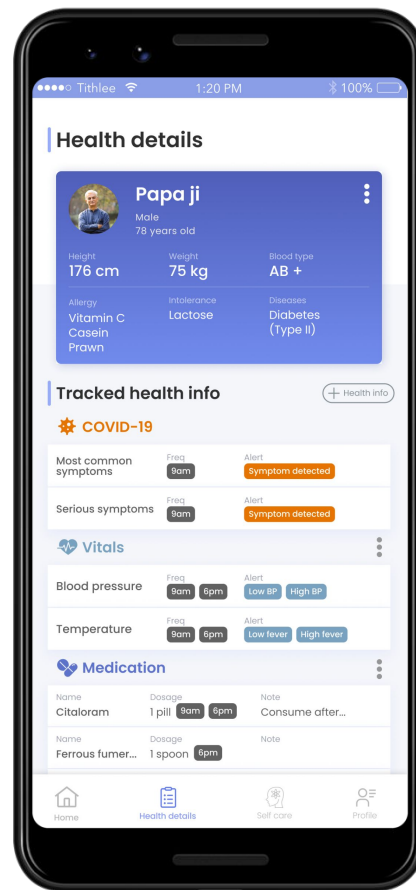
User Experience

Feature 2:
Updates on care receiver well being

Tithlee collects well-being information from care receivers regularly and shares the information with long-distance caregivers (LDCs)
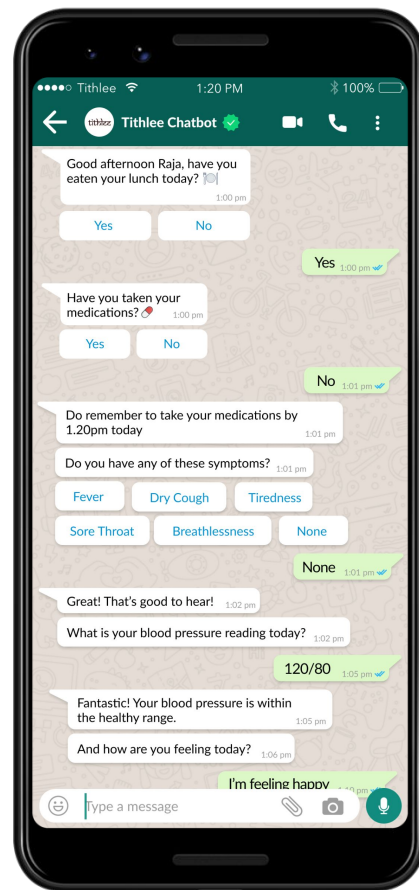

Dashboard

View a summary of your care receiver's wellbeing

Receiver health profile

Customise the health info you want to be updated on
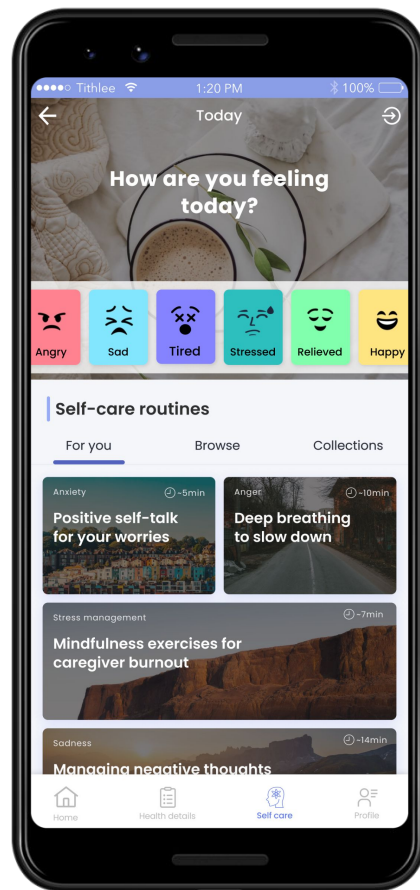

Tithlee chatbot

Care receiver receives check-in messages via Whatsapp

User Experience

Feature 2:

Self-care to cope with caregiving stress

Caregivers can input how they are feeling today and receive tailored recommendations on self-care routines that they can follow to manage the feelings

Self-care tools

Input how you are feeling and receive tailored routines

Self-care routine

**Follow along the routine to manage your stress & emotions**

Impact on the Society

For the Long-Distance Caregivers (LDCs)
- **Stronger connection with kin:** Life becomes easier as LDCs can reach out and communicate easily with loved ones, within seconds
- **Building better mental health:** Greater emotional support through our resource hub
- **Reduction in emotional struggles:** Provide a sense of security to caregivers by providing them real time information so that they'll be less worried and guilty about not being around to care for their kin

For the elderly
- **Stronger connection with kin:** Through constant familial interaction and care received, they'll be able to strengthen their bonds with their loved ones
- **Assistance:** Immediate help rendered when needed
- **Receive Reminders:** Simple whatsapp chatbot to deliver constant reminders and check-in
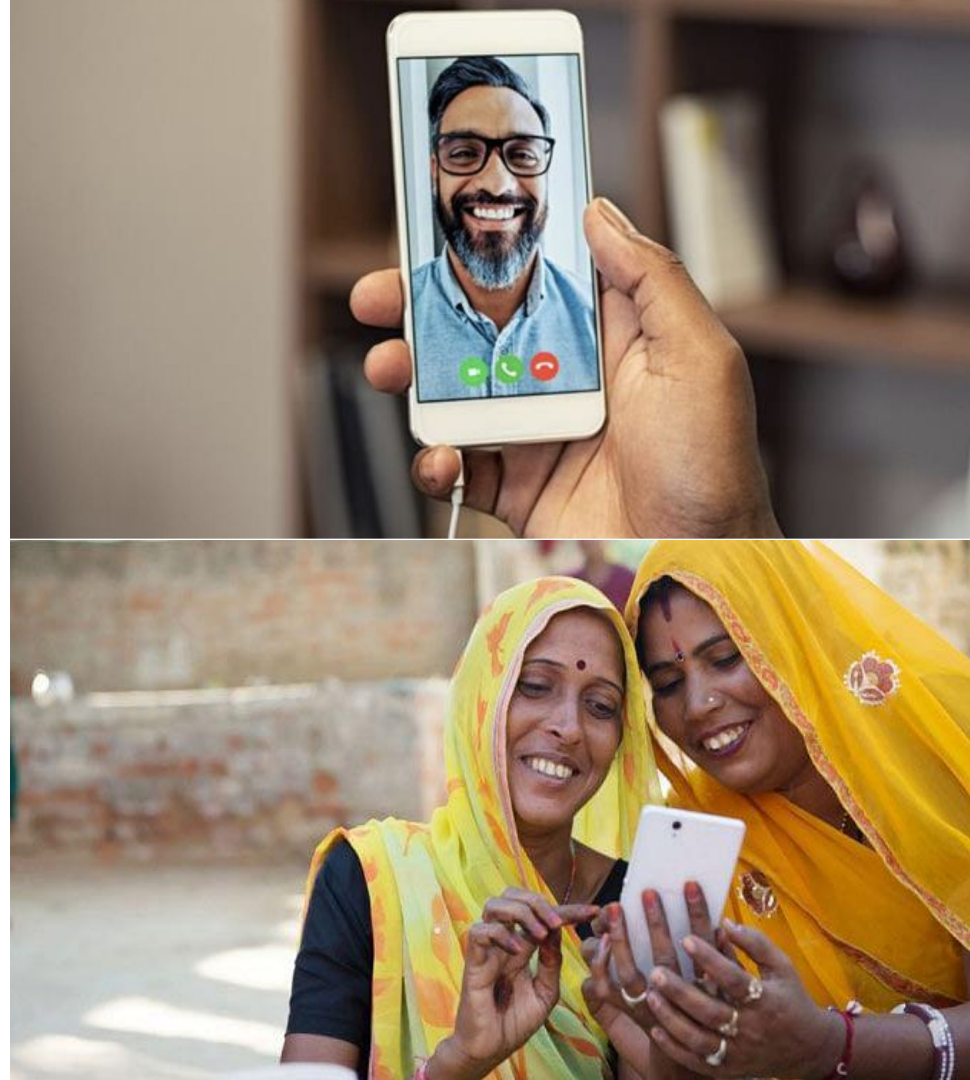
Sustainability

We design for long term profits, for green, for everyone.

For **Next Wave & the Future;**
Helps LDCs and elderly **react with less stress** when the 3rd wave strikes, providing tools to facilitate caregiving and advice for mental well-being. Also strengthens the bonding between LDCs and elderly regardless of COVID-19 or other "disaster", **easing the long distance barrier** in all circumstances.

For **Our Planet;**
Through helping LDCs and elderly realising the possibility to overcome distance barrier, Tithlee plays an important role in **reducing individual's' carbon footprint** as it makes caregiving compatible regardless of distance. Our solution leverages current infrastructure and technology, **harnessing existing resources**.
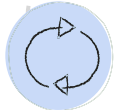
And For **All.**
We found that there are approx. 4M indian elderly living by themselves. Our idea was indeed driven by such heartbreaking situation in India, yet we hope it would bring much larger impact and application to people around the world. In the U.S., there are approx. 5-7M long distance caregivers struggling to obtain information about their loved ones. Tithlee's solution applies to **everyone** who is experiencing pain and struggles from giving and receiving long distance care. It benefits people of **all race, gender, age** and **nationalities**. It is a solution for all.

Business Viability

1. Tithlee is a simple app based solution that **leverages on existing communication infrastructure** (Whatsapp) to aid problems faced tech-savvy Indian Long Distance Caregivers (LDCs) in Singapore

2. Using Whatsapp as the main communication tool ensures that **elderly do not require to learn how to use a new app** during this pandemic where LDCs cannot be by their sides to teach them new technologies

3. Using a Whatsapp AI chatbot and providing self-help mental well being tools via an app means that Tithlee **is less labour-intensive and can be operated virtually.**

4. Providing easy to use self-care tools within the Tithlee app gives these LDCs who are working professionals **an easy and timely way to manage the emotional and mental stress of caregiving when the need arise**

https://unsplash.com/photos/Y4zNMW3pQAs

Business Execution Roadmap

Step 2
Promote Tithlee to Indian LDCs in Singapore to gain users

Step 4
Obtain user feedbacks and suggestions on features LDCs require. Make improvements

1

2

3

4

5

Step 1
Integration of AI chatbot, Whatsapp Business API, and Tithlee app

Step 3
Educate LDCs about self-care through Tithlee mental health resource

Step 5
Partner with existing personal home caregiving services; provide syncing of health tracking wearables (smart watches, ECG monitors) for real time tracking