



RecoveryGrow

Final Report

CS147 Fall 2022

Table of Contents

1. Project Name and Value Proposition	3
2. Team Member Names and Roles	3
3. Problem/Solution Overview	3
4. Needfinding	3
5. POVs and Experience Prototypes	6
6. Design Evolution	11
7. Final Prototype Implementation	32
8. Reflection and Next Steps	33

1. Project Name and Value Proposition

Project Name

RecoveryGrow

Value Proposition

Holistic Concussion Recovery

2. Team Member Names and Roles

Crystal C. (Designer)

Kimberly B. (Developer)

Nicolas C. (Designer)

Sharon W. (Developer)

3. Problem/Solution Overview

While concussions directly impact one's physical health, mental and emotional impacts are often overlooked, which causes those recovering from concussions to often express feelings of isolation and lowered perceptions of self. *RecoveryGrow* works to meet the emotional needs of individuals healing from concussions, providing a space for users to reflect on one's health and connect with others. More specifically, we envision *RecoveryGrow* to be used on a regular basis by users, such that they can log their day-to-day symptoms and emotional wellbeing as they journey through concussion recovery. We also want to encourage them to connect with others through recovery forums, and share their updates with the people in their personal lives.

4. Needfinding

We started our design process by conducting interviews on people that fit into our target audience. When looking for potential interviewees, we focused on people that had significant experiences with concussions in the recent past.

To connect with this population, we applied and joined a number of Facebook Support Groups for those recovering from concussions and other brain injuries. Because posting in any form of advertisement was against the support groups norms, we resorted to individual messages with group members that seemed active. We also obtained participants by making Reddit posts and finding individuals that were located near us. Lastly, we recruited a few members from Stanford's sports teams since athletes often experience concussions as well. We conducted our interviews both in person and through Zoom. We made sure that at least two team members were present during the interview so that one person could ask questions and the other could take notes. Within our first round of interviews, we were able to talk with five people who had varying, yet severe experiences. Some of the participants were

<p>meet Jamie ■</p> <p>Jamie is a 37 year old paramedic student currently on disability leave living in the Bay Area.</p> <p>They injured their head in a non head contact bike accident where they also broke their tailbone.</p>	<p>Meet Charlotte ■</p> <p>Charlotte is a high achieving CS student, highly involved in her classes and extracurriculars.</p> <p>She fell off her bed and hit her head during the end of Winter quarter.</p>	<p>meet Nadia ■</p> <p>Nadia is a college student and restaurant worker, hoping to one day become a therapist</p> <p>She has suffered three concussions within the past year (on a deck, at a football game, and at work).</p>
---	---	---

The types of questions we asked were the following (non-exhaustive):

- Walk me through the day you received your concussion.
- How did you let your school/work know about your concussion and the accommodations you needed? Did you experience any pushback?
- How did you track your symptoms?
- What helped you most in adapting to your concussion?
- How did your family and friends react to your concussion?
- What do you wish people knew about living with a concussion?

We synthesized all that we learned from our interviews by creating empathy maps for each participant. More specifically, we looked over each interviewee's notable quotes, interesting behaviors, and possible thoughts and feelings

they may have encountered as they described their experiences. Below are a couple of examples of these empathy maps:



From these interviews, we received a number of note-worthy insights. Namely, that it is easy for a breakdown in relationships to happen when your loved one hasn't been in a similar position themselves. That also touches on another major takeaway, which is that interpersonal communication becomes hard during the recovery process, because of things like forgetfulness. A third insight that we took away was that those recovering from concussions (who we may refer to as “recoverees” at different points in this report) didn't feel like themselves, which led to social isolation and other negative emotions.

Approaching our second round of interviews, we wanted to prioritize demographics and experiences that we hadn't been able to include with the first five users. This meant that we were specifically looking to gain insights from male-identifying users that didn't have as severe of an experience with concussions or head injuries in their past. In that, we were able to talk with Alex and Randy, who emphasized the need for community within those recovering as well as the uncertainty in the duration of one's limitations (not knowing when you'll get back to doing what you once did).

With these insights, we had a lot of common ground to build off of with our Point-of-Views, which we would then test with Experience Prototypes.

5. POVs and Experience Prototypes

After conducting our needfinding interviews, we developed “Points of View” for three of our most insightful participants. We chose these participants because they shared common experiences with our other interviewees but also provided key wisdoms that assisted us in narrowing down our problem domain.

Point Of View #1: Charlotte

We met Charlotte, an ambitious, highly involved Stanford student.

We were surprised to realize that the mental struggle of concussion recovery can be just as, or even more tough to deal with than the physical struggle.

We wonder if that means that mental health is overlooked within the bases of support available to people recovering from concussions.

It would be game-changing to provide adequate mental health resources to individuals in concussion recovery.

How Might We...

- **make the individual feel empowered during recovery**
- make those recovering find value in themselves
- make the mental recovery process light-hearted and fun
- make mental resources more accessible (affordable, approachable, etc.)

Point Of View #2: Jaime

We met Charlotte, Jamie, a 37-year old paramedic student in the Bay Area who has a history of severe head injuries.

We were surprised to realize how much their concussion negatively affected their relationship with loved ones, causing them to move away from family and friends to better recover.

We wonder if that means support and understanding from loved ones is vital to the recovery process of the injured party.

It would be game-changing to help those recovering from concussions better communicate with others.

How Might We...

- **make sharing their symptoms daily something that is exciting**
- encourage them to share where they are at with their symptoms
- increase compassion from others during the recovery process
- ease the burden of having conversations about how they are feeling each day

Point Of View #3: Nadia

We met Nadia, a 23-yr old student and restaurant worker who has experienced three concussions in the past year

We were surprised to realize daily tasks like walking up stairs or going out for drinks with friends present a huge risk for another injury and there was a lot of fear around this.

We wonder if that means those recovering from concussions have to make hard decisions around daily actions.

It would be game-changing to reduce the fear of getting re-injured associated with daily actions for those in recovery.

How Might We...

- **make daily activities feel fun and safe**
- leverage hobbies and interests to promote daily activity
- help people recovering from concussions make informed decisions
- create less-risky, similarly appealing alternatives to risky behavior (going out w friends)

After drafting these POVs for our three potential users, we curated a list of 10 solutions from the emboldened “How Might We”s, totalling to 30 ideas. Of the solutions, we narrowed down three promising ones and decided to test our assumptions pertaining to each solution’s implementation. In testing these assumptions, we created an experience prototype, which would allow us to see if our assumption holds without actually having to implement the actual solution. The assumptions, and results of the experience prototypes are listed below.

Solution 1

Build an app that shows those recovering from a concussion how safe an activity is

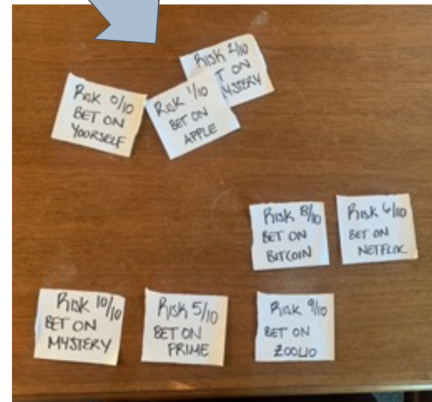
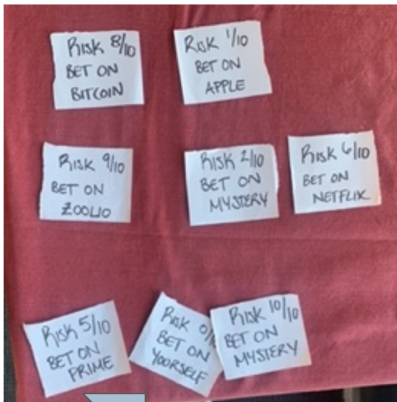
Assumptions around this solution were

- users listen to/follow labels
- **Users try to avoid risk - will be tested**
- Users are unaware what activities are safe or not

Experience Prototype 1

To test whether users try to avoid risk, we set out to see whether people make risk-averse decisions when the opportunity presents. Making this implementation as general as possible, we set up ten cards, each with differing risks associated with the choice. The user that participated in this prototype was instructed to select three bets to wage and then explain their selection.

Able to bear consequences



Unable to bear consequences

As shown above, the participant initially chose to evenly spread his risks out, as to play fair. When asked if he was worried about losing the bets he's wagered, the participant emphasized that he would only place a bet with things that he is willing and able to lose. I then asked what if the wager was arbitrary and the consequences could be negative for you. The participant then reselected according to a situation where he might not be able to bear the consequences of a negative outcome. This was an insightful test because it had an underlying assumption in it. For those recovering from concussions, I would say that they fall into the "unable to bear consequences" category, as they are in a very fragile situation.

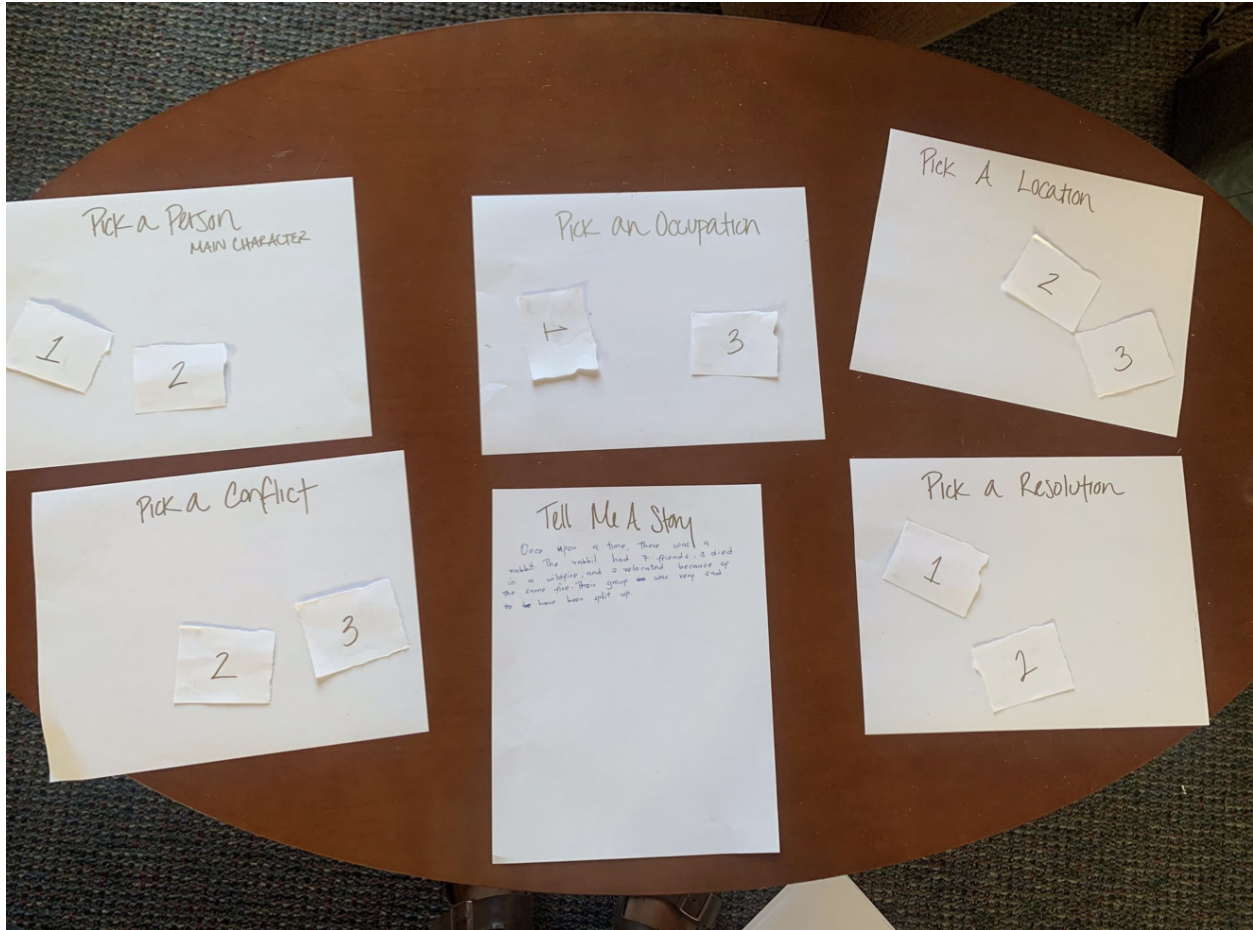
Solution 2

Build an app that makes a game of sharing symptoms

Assumptions around this solution were

- Users are willing to play games when recovering
- Users feel comfortable sharing their symptoms
- **Games help people to share - will be tested**

Experience Prototype 2



To test whether games help people to share, we set up a basic prototype that had users sharing a story, with and without a game. The participant was told to write a story down for a certain amount of time. Then, she was presented with a set of cards that had options for a story: main character, setting, plot, etc. She was then given the opportunity to write another story, following the game of selecting the storyline. This test was promising in its revelation, in that the participant was able to write more, and in more detail. It also brought up the concept of how people share. Perhaps writing a story rather than telling a story is less efficient and breeds less sharing.

Solution 3

Build an app that allows users to create a recovery storyboard

Assumptions around this solution were

- Progress timelines are empowering

- **Users are willing to track their progress - will be tested**
- Users will not be discouraged if progress is not linear

Experience Prototype 3

To test whether users are willing to track their progress, we created a prototype around a word memorization game. The participant listened to a list of words and was told to repeat the words back to the facilitator. They were also given a paper and pencil as well as the instruction to take notes on their progress as they saw fit. There were multiple rounds, with different words used in each. The participant was hesitant at first to track progress, but they eventually used the notepad, reflecting upon strategy. This result confirmed the assumption that users are willing to track progress, but perhaps they would be hesitant at first, especially if the purpose of it is unclear.

6. Design Evolution

a. Final Solution

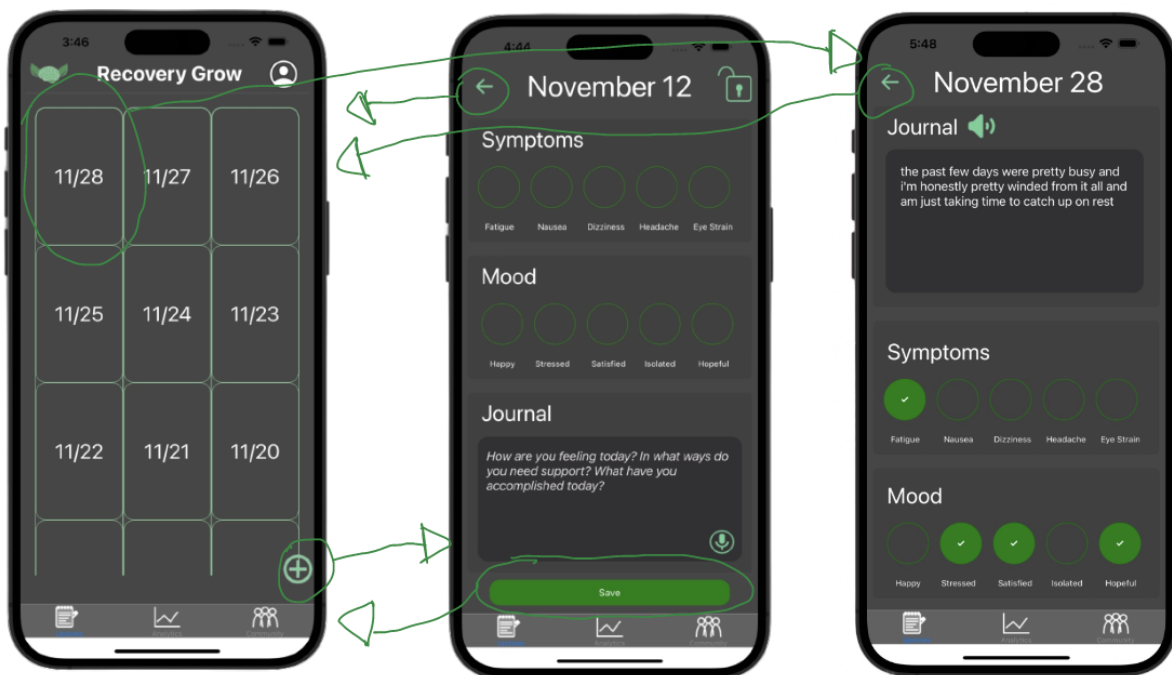
Before choosing our final solution, we conducted market research to better understand current aids that were available for people recovering from concussions. We found that almost all available resources were geared at just testing and treating the physical symptoms of a concussion. As our interviews and the results from our experience prototypes revealed, concussion recoverees also need some form of mental and emotional support during their recovery. Thus, we chose our final solution to be an app that allows users to create a recovery storyboard, which allows users to log their progress and document their recovery journey. The rationale behind this decision was both the feasibility of it as well as the affirming result from our experience prototyping for this solution. It works well as a solution for those that need uplifting ways to express their current state in their recovery without being too niche to where it's not practical for everyday use.

b. Tasks

We created three main tasks around our final solution, ranging in their frequency of use with potential users: simple (used most often), moderate (used a decent amount), and complex (used selectively). Each of these tasks are detailed below.

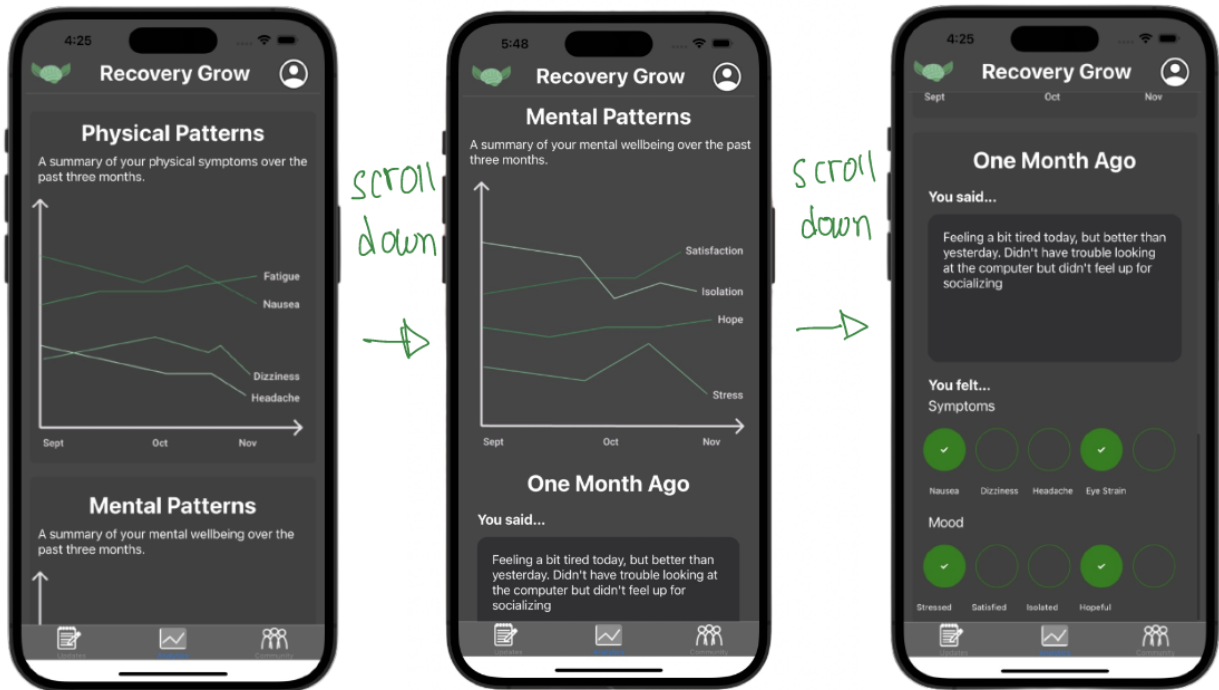
Simple Task: Record and keep track of daily symptoms

- This task was added as the main staple of the app. Most users will frequent this task and interact with it to some capacity when opening the app, so we placed it in the high-frequency category. The task sits in a crucial position because logging of daily symptoms is the main activity when it comes to keeping track of their recovery process. It is also something that is simple to do on a daily basis, another reason why we placed this as a simple task.



Moderate Task: Gain insights into one's recovery journey

- Garnering less attention than the symptom logging, the analytics task was placed in the moderate category for its specialized role in providing people insights into how they have been doing over a longer period of time, rather than just day to day updates.



Complex Task: Connect with others recovering from concussions

- For the expert user that wants to capitalize on all that the mobile app offers, there is the option to connect with others recovering from concussions. This includes finding and friending others, interacting with their updates, and sharing questions/responses on a forum. Because this feature of connecting with others is the most nuanced of all the features offered, it falls into the “complex task” category.



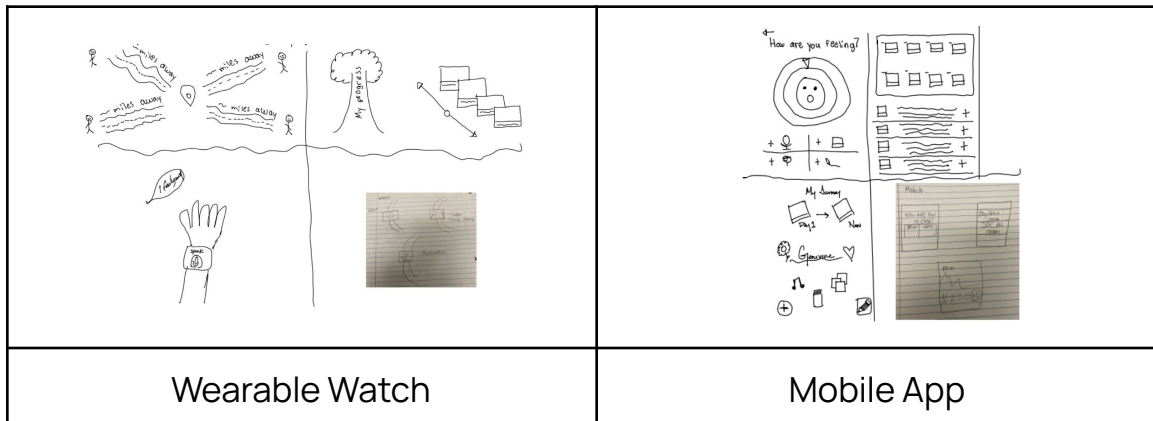
c. Design evolution visualizations and rationale

As we prepared our designs, we went through many evolutions of the layout, function and purpose of each section of the app, to better align the product to our goals. Below, we detail each specific phase of our app and how it evolved to the next.

Concept Sketches

Before we finalized on our solution being a mobile app, we explored multiple interfaces to determine the best mode for helping people recovering from concussions. These included a website, virtual reality, augmented reality, a wearable watch, and a mobile app.

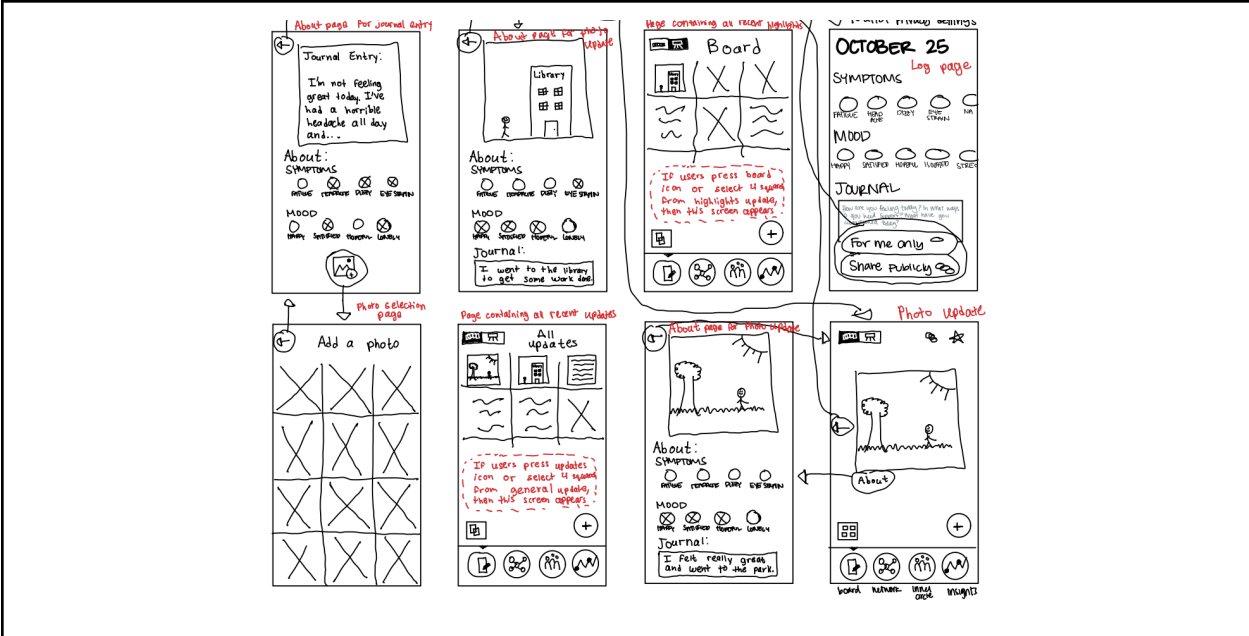
Website	Virtual Reality	Augmented Reality



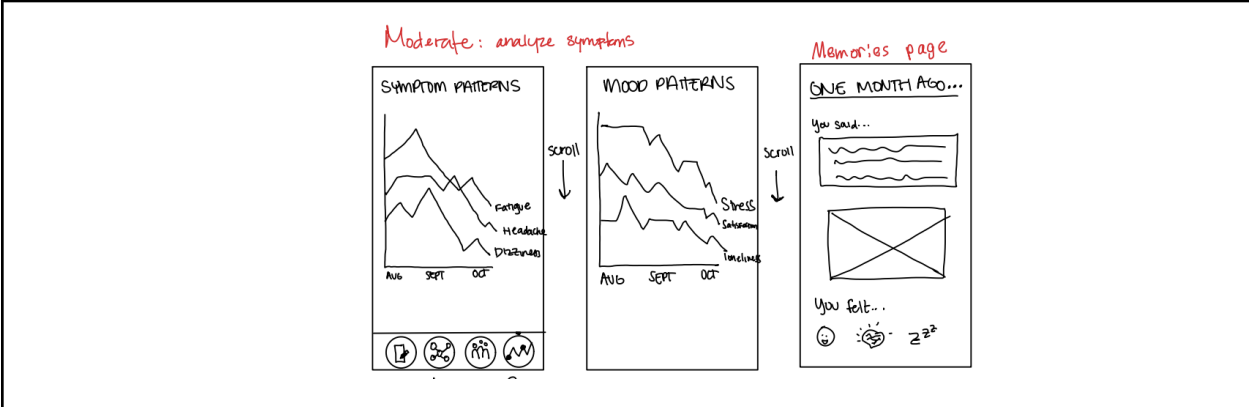
After discussing the pros and cons of each modality, we decided to create our solution on a mobile app because of its wide availability and versatility. Most people have access to a phone, which would allow them to document their health or connect with an online concussion community at any given moment.

Low-fidelity

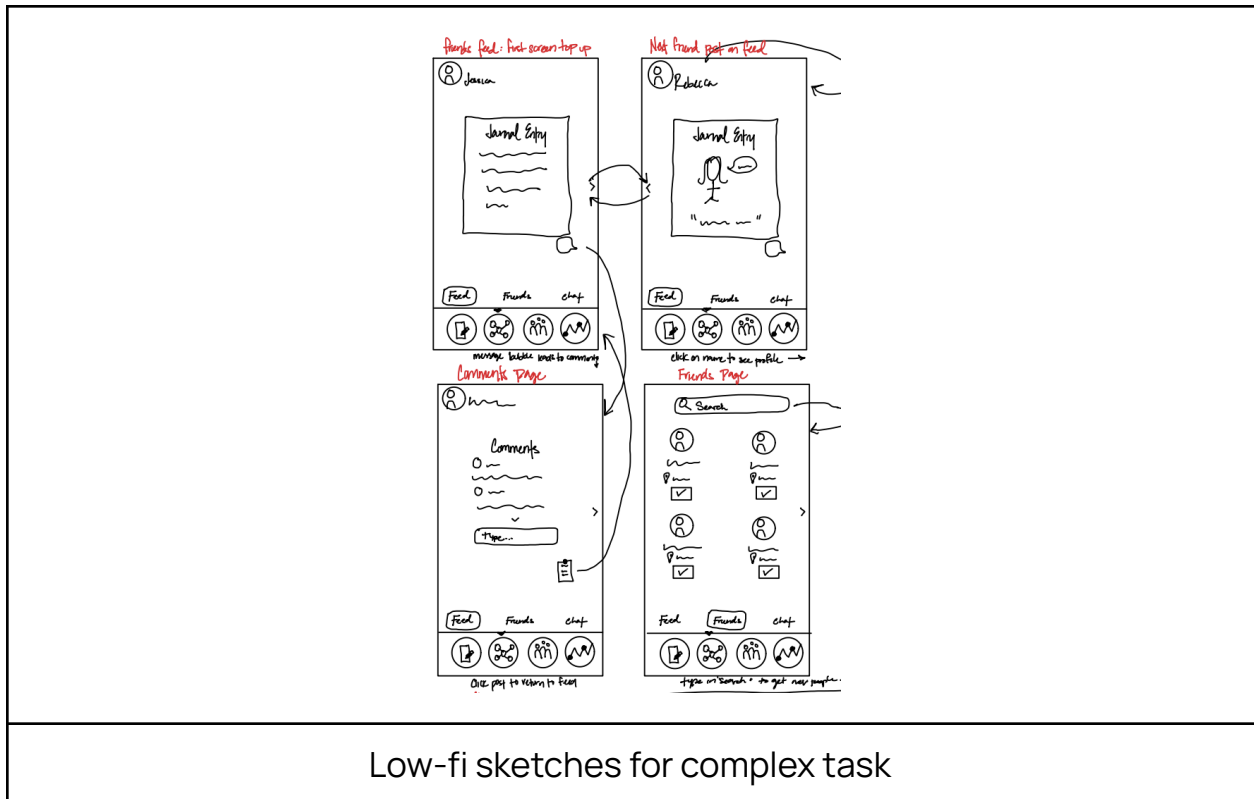
Once we selected our interface, we began to storyboard how our app would look like on a device. More specifically, we began to design a flow for each of our tasks as well as some additional screens to aid potential users in navigating our app. Below are some of the screens we sketched for our low-fi prototype.



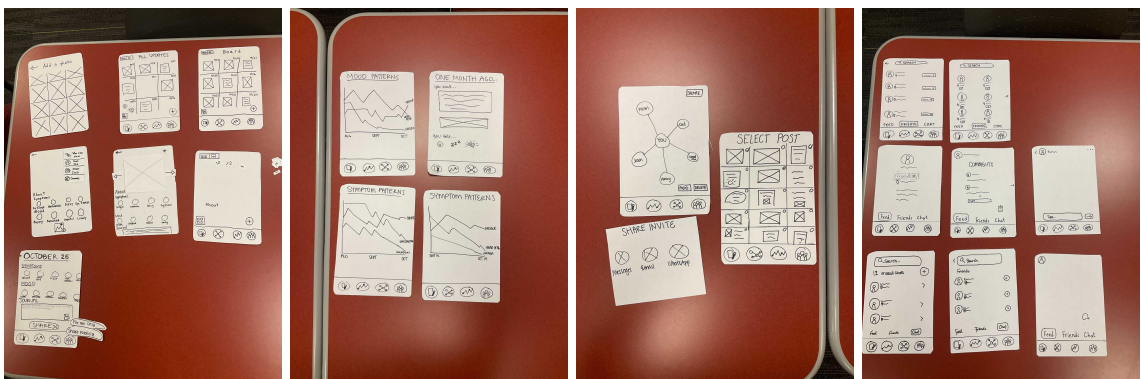
Low-fi sketches for simple task



Low-fi sketches for medium task

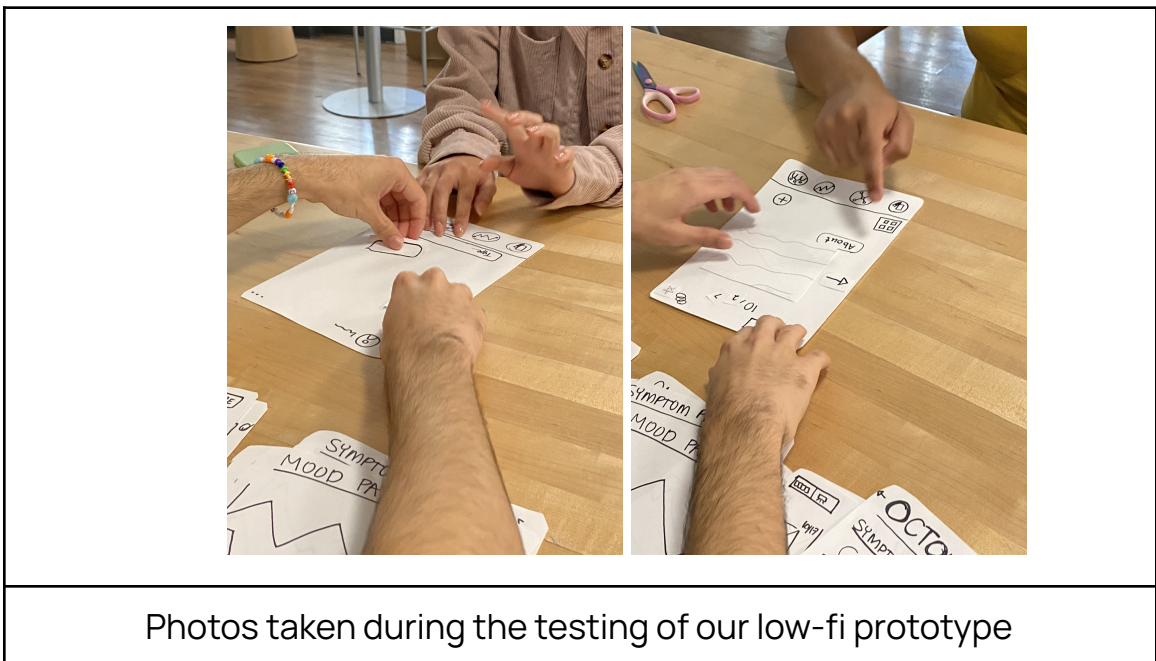


Although drawing ideas on a digital interface helped us discover some features that we wanted to include in our app, we wanted to see if our designs were user-friendly. To do this, we brought our sketches to life by creating a paper prototype, which can be viewed below.



Since our app is aimed to assist individuals who were in the process of recovering from a concussion, we made sure to test people that fit into

our target demographic. We employed many of the same techniques that we used during our needfinding to recruit additional participants. All four team members were present for each trial and fulfilled different roles to ensure that the experience went smoothly. One person acted as the computer and changed widgets and screens as the tester pressed different “buttons.” Another team member took notes to notice any pauses and hesitations as the participant interacted with the prototype. The third person frequently asked for the user’s thoughts as they worked through the test. The last person greeted the participant and gave them background information so that they would feel comfortable with us.



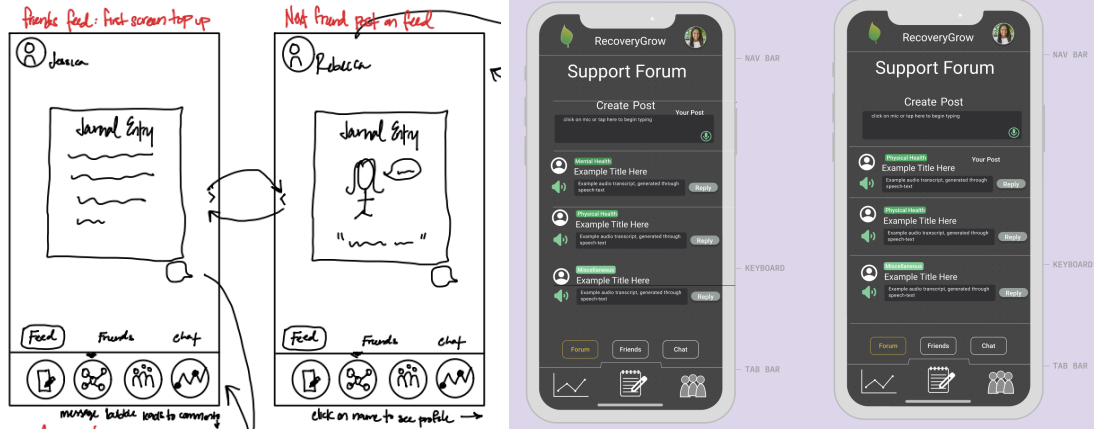
After finishing our tests, we were happy to find that our participants were able to complete most, if not all, of the tasks. More importantly, all users were excited about our app idea and combining the possibility to track symptoms and connect with people that shared their experiences. However, they did express some concern over the fact that our initial iteration implemented a feed for viewing other people’s recovery

journeys. One user even called it “social media for people with concussions.” Given how social media can be linked with negatively impacting someone’s mental health, we decided this was a key design aspect that we wanted to revise as we continued in our process.

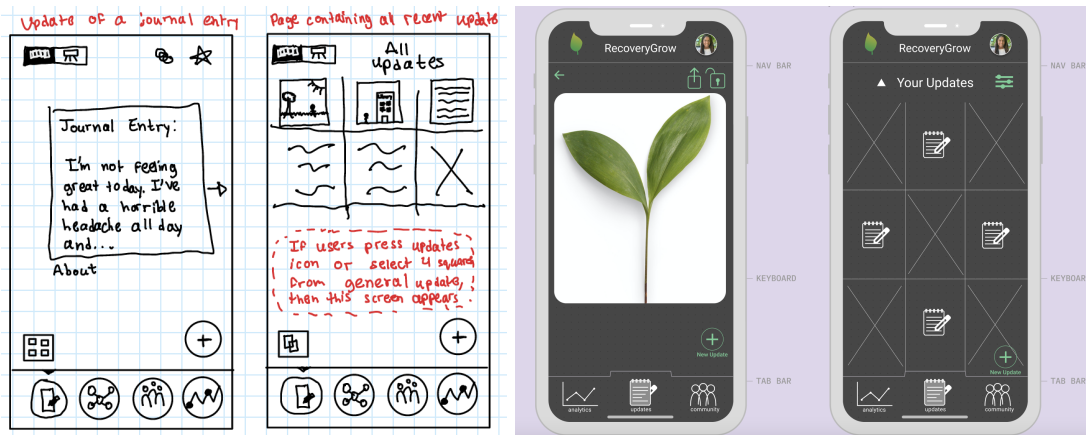
Another general finding was that our participants often lagged when trying to move between screens. They often had to take some time to understand the meaning of each icon as well as the words that were meant to convey different features of our app. They also suggested that we implemented a dark mode since people recovering from concussions sometimes have difficulty looking at screens for long periods of time.

Design Changes: Low-fidelity to Medium-fidelity

The first major change we did was adjust the way in which users could connect online with other people recovering from concussions. Thanks to the insights of the participants from the low-fi testing, we realized that users viewing others’ recovery journeys could actually make them feel worse about their own progress. Similar to social media, they could end up comparing themselves to the people they see online and believe that they aren’t returning to their previous selves fast enough. However, we still wanted users to not feel isolated in their recovery journey. Thus, we changed the feed aspect of our app to instead consist of support forums. This way users would be able to seek advice and relate to other people without necessarily comparing their recovery journey to someone else’s.



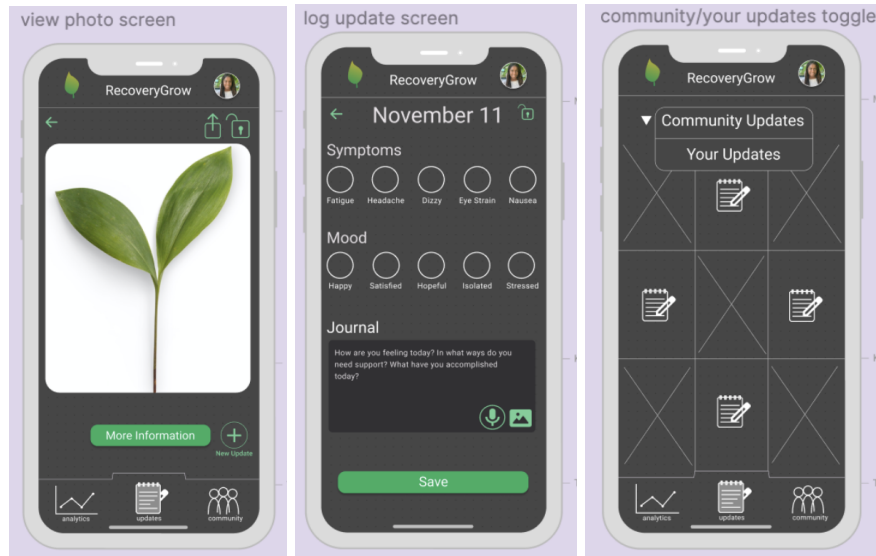
The next major modification we made was to change the iconography in our app to be more representative of our ideas. For instance, we initially had a star icon that you could click to change the privacy of an individual update. We decided to make it a lock since this is used more universally to depict “public” vs “private.” We also had a network tab at the bottom of our screens to allow users to have people in their real life view their updates. We got rid of this tab and instead added a share button so that users could more easily share their updates with people in their personal lives. Furthermore, we got rid of the display change in the upper left corner of an update and the updates screen since we thought a simple back arrow was more indicative of the action we were trying to portray. Lastly, we changed “About” to be “More Information” so users could better understand that they could view more information about an individual update.



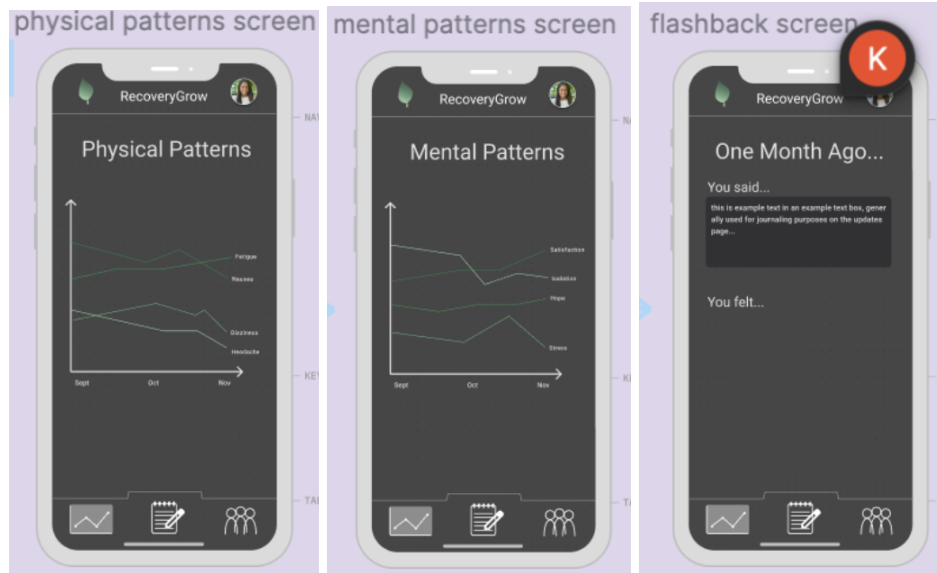
Medium-fidelity

Following the usability testing of the low-fi prototype, we took to Figma to curate a medium-fidelity of the mobile app, utilizing the feedback from our users to create a more straight-forward user interface.

We separated tabs based on the tasks that they were associated with and implemented further based on that. The colors for the design were decided based on our values and usability goals. Icon selection and the creation of components was highly guided by the low-fi iterations. And, a summary of the medium-fi iterations, as they pertain to the user tasks, are shown below.



Simple Task Flow



Moderate Task Flow



Complex Task Flow

Design Changes: Medium-fidelity

To evaluate and improve upon our initial design, we have a group of four evaluators perform a heuristic evaluation on our initial prototype. From the results of their evaluation, we had numerous violations of design principles (or heuristics) that fell within the “major usability problem” or

“usability catastrophe” category. These serious violations are detailed below along with our response to the calls to action.

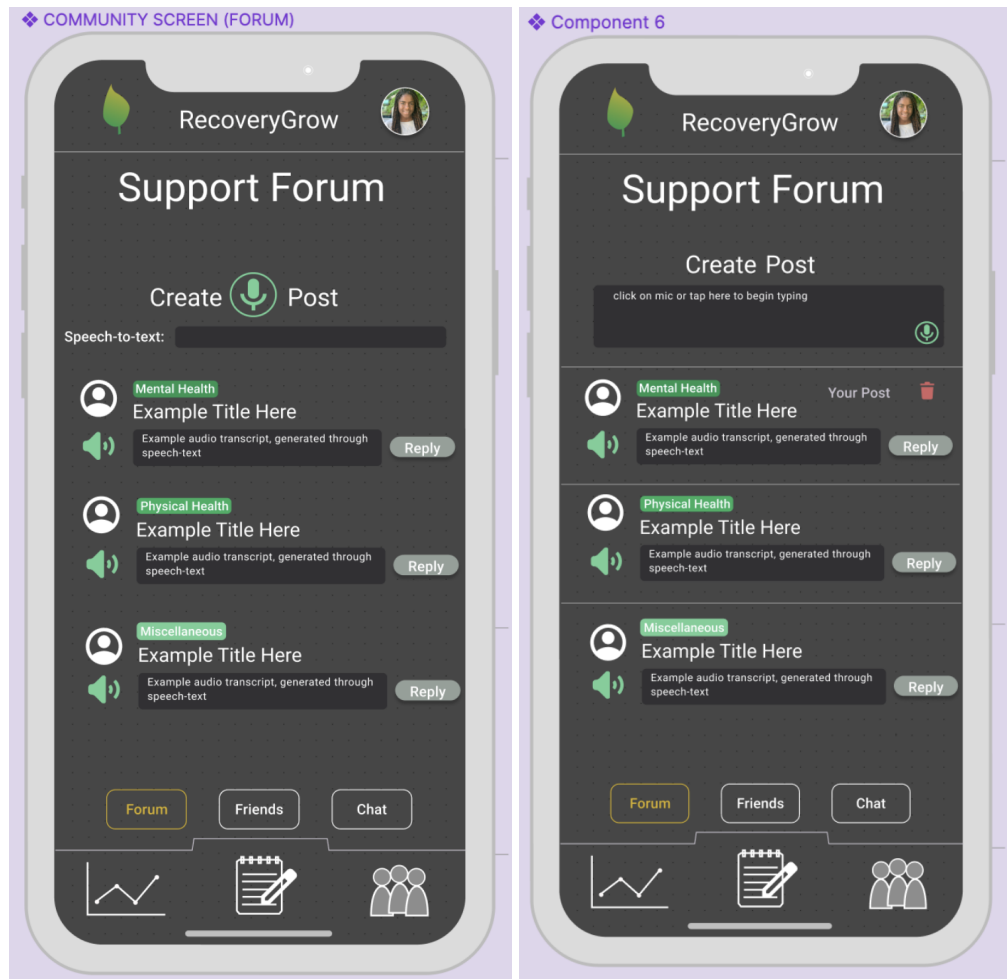


Figure A. Support Forum changes

1. No date when viewing specific journal/photo log entry
 - a. We added a date to update log (see Figure C below)
2. Clicking into an existing update with a photo gives the option of “add photo”
 - a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution
3. It is not entirely clear what happens when the user locks or unlocks the post – whether this makes the post visible to

others/people in their network or whether unlocking the post makes the post visible to just the user.

- a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution
4. No update after filtering
 - a. We added an update after filtering viewing to the updates page
5. No indicator of how many sections, or which section is currently being viewed on the homepage.
 - a. We were not sure that there was a need to focus on how many updates a person had, so we did not pursue the proposed solution
6. Homepage has a "+" icon button but there is no indication of anything users are able to add on the Homepage.
 - a. We added a label to the "+" icon (see Figure B below)
7. The lock icon on top of the Homepage matches the lock icon which indicates 'Public' or 'Private' journal entries on the Your Updates page. There are no Updates shown on the home page, creating an inconsistency.
 - a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution
8. There are two options for updates, "public updates" and "private updates", but these terms seem to reflect the system designers' understanding of the system, rather than a user's understanding of their own posts and sharing opportunities.
 - a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution
9. There are 5 options for a user's mood that may not sufficiently capture the expanse of their emotion. It can also be difficult for users to understand how to label their emotions with these 5 mood terms.

- a. With feasibility in mind, we decided to not pursue the proposed solution.
- 10. The titles 'Physical patterns' and 'Mental patterns' may reflect the system's internal model of the user's state.
 - a. We added more context to the labels on the analytics page
- 11. Speech-to-text is used as a label on the forum screen when a user is creating a post.
 - a. We changed the label of the "speech-to-text" inputs (see Figure A above)
- 12. There are no option to delete logs or edit logs for typos
 - a. We added an option to delete entries (see Figure A above)
- 13. Scroll button is not clearly visible on the home (summary) page
 - a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution

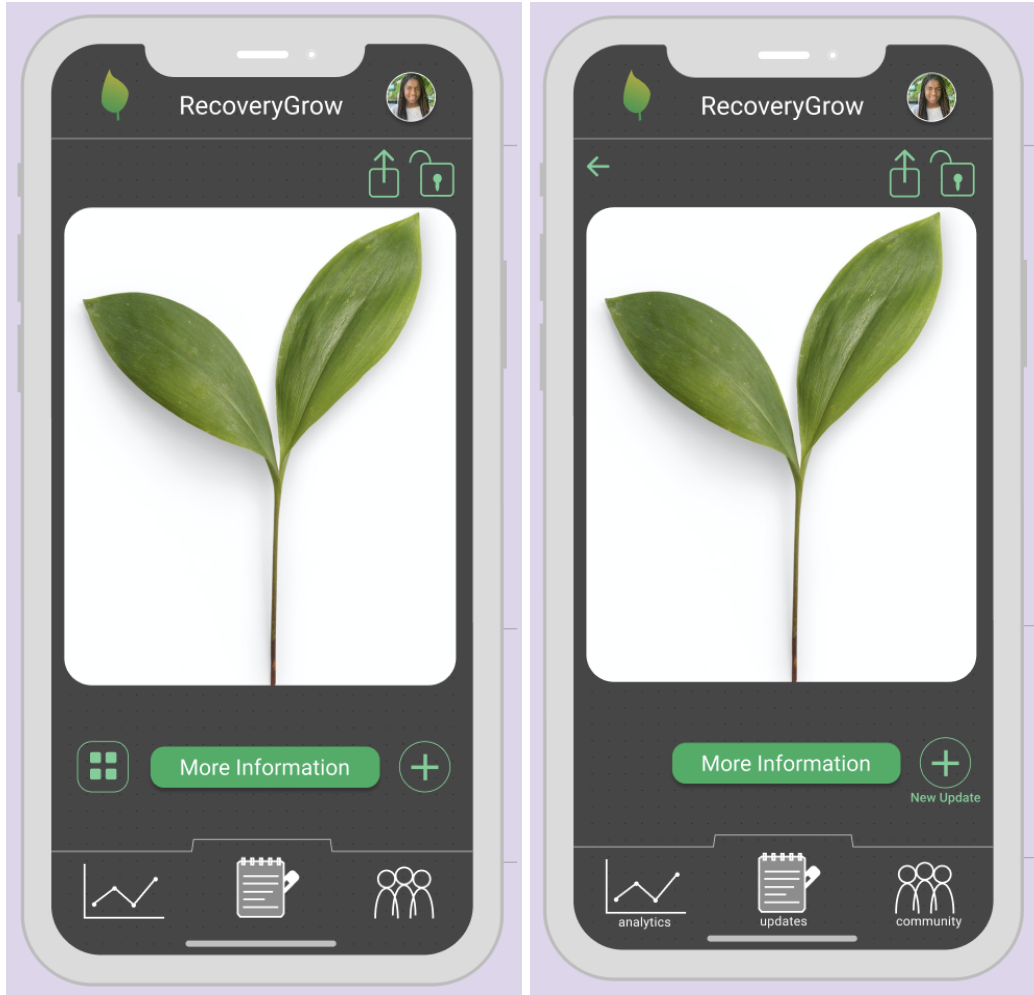
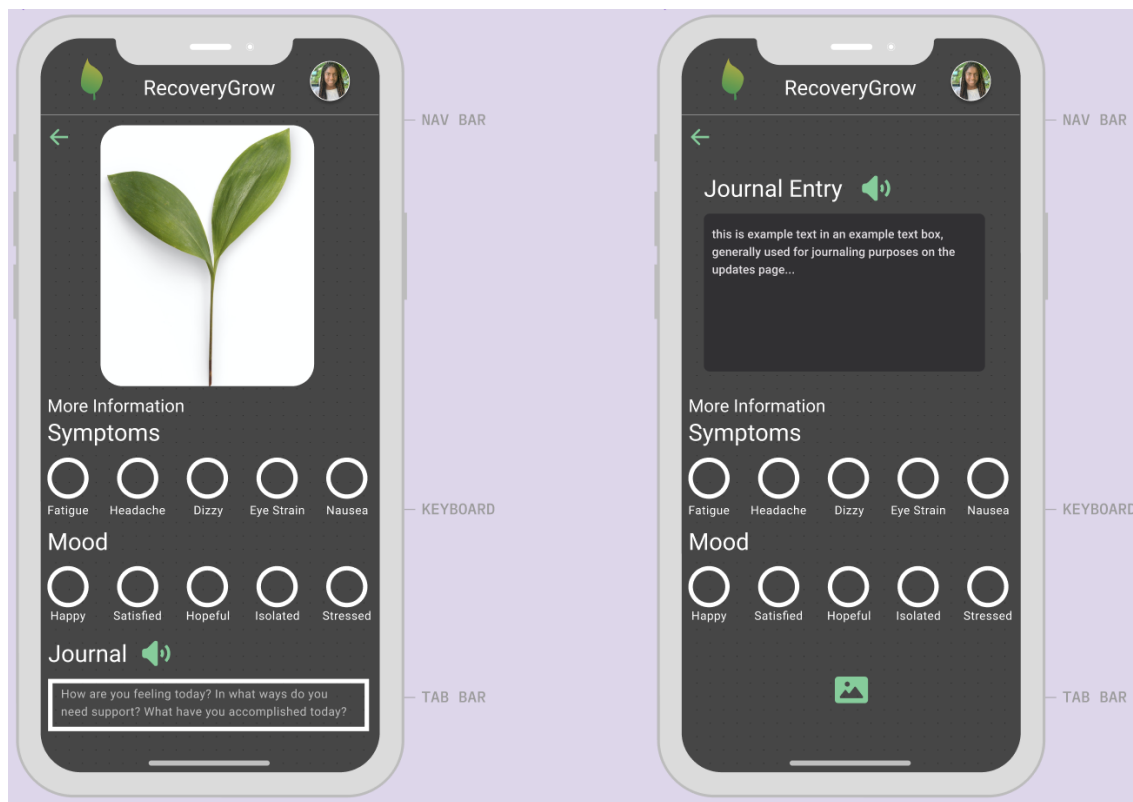


Figure B. Home screen changes

14. Buttons on the bottom navigation bar are not clearly labeled.
 - a. We labeled the buttons on the navigation bar (see Figure B above)
15. The user is unable to take back a post on the Support Forum they have just made.
 - a. We added a delete option for forum posts (see Figure A above)
16. No option to delete an asset or photo that is uploaded.
 - a. This problem was previously addressed

17. The 'back' button on creating a journal entry is the Multi-Square icon, which is not consistent with the left arrow back button used on other pages.
 - a. We made all back buttons identical (see Figure B above)
18. The page compiling all journal entries is called 'Your Updates', yet creating a new entry on this page brings up a title saying 'New journal Entry'.
 - a. We made all labeling harmonious (see Figure C below)
19. 'View most recent log' button is the same format as the the 'add log' button
 - a. "View most recent log" was removed from bottom left corner (see Figure B above)
20. Post reply button is grayed out
 - a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution
21. There is no error checking on whether 'Mood' or 'Symptoms' are selected by the user before creating a Journal post.
 - a. With feasibility in mind, we decided not to pursue the suggested solution
22. Clicking dizzy selects 'Headache' and 'Eye Strain' instead
 - a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution
23. In the updates overview page, it is not clear that "Your Updates" is a button.
 - a. We made the "Your Updates" button selection more obvious
24. The prompt for the journal entry is currently within the textbox. The text is helpful but I assume that it disappears when a user starts typing their response.
 - a. With feasibility in mind, we decided not to pursue the suggested solution

25. The current date is not easily visible to the user, nor is the date of the journal entry from a month ago.
 - a. We adjusted the dates to make them clearly visible (see Figure C below)
26. Other forum comments are displayed while user types replies or makes new posts
 - a. With feasibility in mind, we decided not to pursue the suggested solution



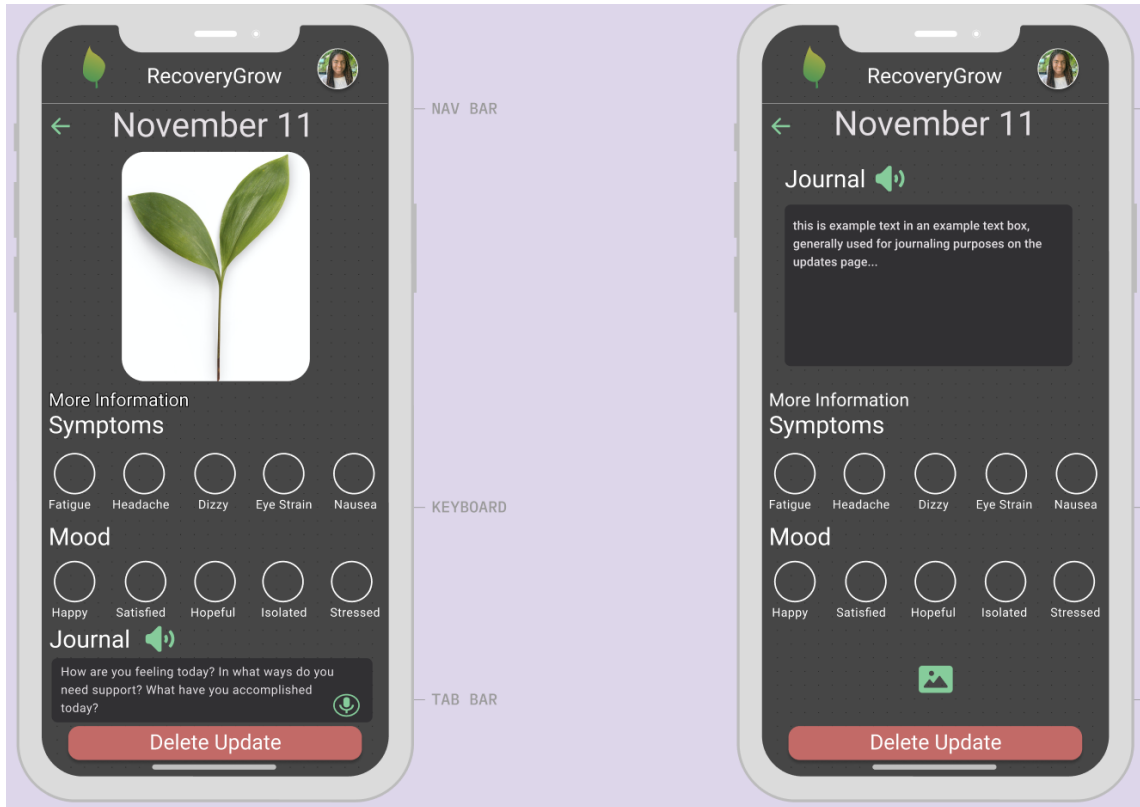


Figure C. Symptom tracking/Journaling changes

27. The headers on the insights screen are often separated by inconsistent spacing. The distance between the 'one month ago' and 'you said' heading is larger than the distance between the end of the journal entry and the 'you felt' heading.
 - a. We fixed the
28. The post preview contains the title, tags, the post transcript, and a button to listen to the post-recording.
 - a. We disagreed with the nature of the problem, so we did not pursue our evaluators proposed solution
29. The Support Forum page does not prompt users when they forget to insert an attachment for a speech text functionality or give an error message

- a. With feasibility in mind, we decided not to pursue the suggested solution (but there is potential to add this feature in the high-fi)
- 30. If a user posts an empty post or forgets to fill out any required portion of the entry, there is no visual indication that this is an error.
 - a. With feasibility in mind, we decided not to pursue the suggested solution (but there is potential to add this feature in the high-fi)
- 31. Recording a post is missing error handling if the audio is inaudible or empty.
 - a. With feasibility in mind, we decided not to pursue the suggested solution
- 32.No help/documentation for how the app works
 - a. Will be addressed with onboarding (potential high-fi feature)
- 33.There are no instructions or documentation about how to log or edit journal entries.
 - a. Will be addressed with onboarding (potential high-fi feature)
- 34.There are no instructions about how to create or reply to posts.
 - a. Will be addressed with onboarding (potential high-fi feature)
- 35.Bottom navbar buttons unlabeled
 - a. Already addressed previously
- 36. In the “Physical Patterns” and “Mental patterns” graph, similar colors are used between graph lines representing concussion symptoms. The lines are also very thin.
 - a. With feasibility in mind, we decided not to pursue the suggested solution (but there is potential to add this feature in the high-fi)

37. Low color contrast between Add Contacts button text and button background.
 - a. Color contrast was changed with the “Add Contacts” button
38. Users are able to add speech input to forums, but in personal chat messages speech input is not allowed.
 - a. Speech-to-text options were added to chat
39. There are no alt-text for photos in updates from community updates
 - a. In the interest of time, we were not able to implement this solution, but will prioritize in next steps.

d. Values in design

To guide our design, we decided on three values that we wanted to uphold. The first of these was **balance**. The purpose of this value is to bring attention to the emotional toll of concussion recovery and emphasize mental health as a priority alongside physical health. The way this value would be implemented would be through a logging of both physical symptoms and emotional states. The second value was **empowerment**. The purpose of this value is to overcome feelings of inadequacy that users might feel while recovering. This would be done through reflection prompts that promote positivity. Last of the values was **community**. The purpose for this value is to ensure that users do not feel alone during the recovery process. This will be implemented by having users able to connect with one another and interact with each others' progress updates.

These values work harmoniously together and do not seem to clash with one another, neither in their aims nor their execution. The one main issue with the solution that would be in conflict with our values is that it is a mobile app and many people recovering from concussions can only tolerate minimal amounts of screen time. To address this, an implementation of screen time reminders within the app, more efficient

task flows, and an accessible interface (i.e. dark mode) can help make efficient use of our user's screen time.

7. Final Prototype Implementation

Tools

To implement our final prototype, we utilized React Native, as well as Expo and Xcode. In addition, we also used many of the components and styles that we had already created in Figma in order to maintain the design system that we worked on during our medium-fidelity prototyping. Github was also extremely helpful as it allowed for collaboration between the developers.

We found Expo and Xcode to be extremely useful for testing our app. However, we all ran into issues with using the ExpoGo app and were only really able to test effectively using one of the simulators offered through Xcode. This restricted us from getting a sense of what the app would look like on our different iOS devices in-hand.

Our group used Supabase for the basic backend functionality that we were able to implement. With information provided from CS 47 lectures, we were able to set up the sending of data to the Supabase database, which occurs when a user logs their symptoms and journal entry for the day. However, it was a bit outside of our technical capabilities to retrieve the data and have it repopulate in the app as there was less documentation available for this.

Wizard of Oz and Hard-Coded Implementation

The analytics were generated by Wizard of Oz, specifically the graphs showing the tracking of a user's Mental Patterns and Physical Patterns.

Because we were not able to implement full backend functionality under the time constraint, we hardcoded multiple features in our app. When a user logs their symptoms and journal entry under the Updates Tab, the data is saved to a Supabase database. In a completely functional app, the data would be populated in a new post on the grid, which currently contains posts that are all hard-coded. In addition, the posts on the community tab, as well as the replies, are hard-coded. We also hard coded the “flashback” journal entry that shows a user’s post from one month prior.

Limitations:

Due to time constraints, there were some features of the final app that were not implemented in the prototype. These include:

1. Functionality for creating and responding to posts
2. Speech-to-text and text-to-audio functionality
3. Adding friends and viewing community updates
4. The creation of a user profile

8. Reflection and Next Steps

In reflecting on the testing aspect of the design process, our team found that clarifying our interpretation of the design with the interpretation of potential users to be a super insightful and very necessary step in the process. We also found that providing and expanding the options for accessibility to be a very important part of design. Up until the end of our design process, there were always more ideas brought up about how to make the interface more inclusive and accessible for potential users. All in all, referring back to the user interviews, POVs, and relying on user

feedback through testing helped us to stray from making a 'generic' or 'unguided' application.

In terms of next steps, there were many aspects of the implementation that time didn't allow for during this initial design of the app. We would prioritize accessibility features (auto-dimming of the display brightness, alternative text for photos, etc.) as well as implementing a database to store user data (which would enable functionality across our currently hard-coded elements).

Acknowledgements

In conclusion, we would like to thank our CA Emily Yang, Maya Srikanth, Professor James Landay and the rest of the CS147 teaching team for all the guidance and support throughout this design process.