

# Concussions.

Invisible, not-so-temporary illnesses

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## Problem Domain

Initially interested in providing accessibility for **temporary injuries**, but eventually landed on the invisible, not-so-temporary injury of **concussions**

# Additional Interviews

## Alexander

- Confirmed the notion of risks that are associated with going back to hobbies
- Provided powerful insight towards the need for support group and reliable online resources
- Made unique mention of healthcare costs

## Randall

- Brought to mind the situation of workplace injuries and the challenge of regulations
- Highlighted a perhaps common progress tracking method: trial and error
- Emphasized the uncertainty around duration of recovery as well as severity of limitations



**KEEP CONNECTED**

**WE MET...**

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

**WE WERE SURPRISED TO REALISE.**

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 daily feelings (symptoms, etc.) more exciting



### **WE MET...**

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

### **WE WERE SURPRISED TO REALISE..**

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 that 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 & safe



## **WE MET...**

Charlotte, a busy and involved student who had another head injury before the concussion

## **WE WERE SURPRISED TO REALISE.**

how much mental weight they have to bear with little to no professional help

## **WE WONDER IF THAT MEANS..**

how much specialized professional help from different aspects (physical, mental, speech...) help recovery process

## **IT WOULD BE GAME-CHANGING TO..**

connect suitable professional help that fits their specialized need



**WE MET...**

Charlotte, an ambitious, highly involved Stanford Student

**WE WERE SURPRISED TO REALISE..**

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..**

to provide adequate mental health resources to individuals in concussion recovery.



## HOW MIGHT WE

Make the individual feel empowered during their recovery

# Solution 1

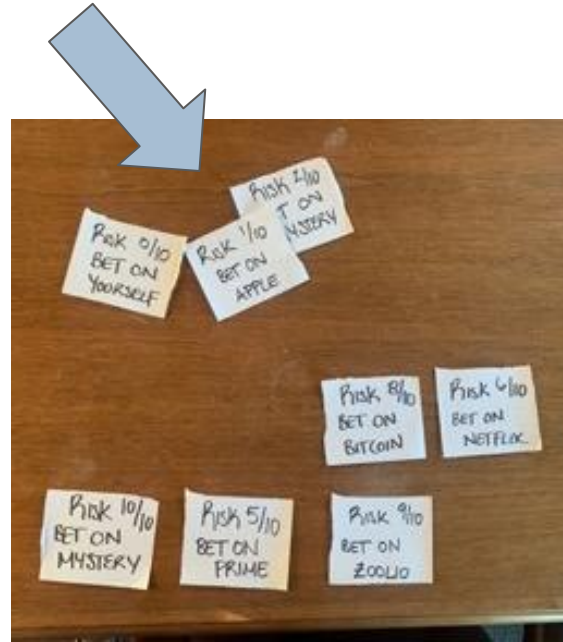
Build an app that shows those recovering from a concussion how safe an activity is

## Assumptions

- Users listen to/follow labels
- **Users try to avoid risk**
- Users have the time to check the safety of an activity before actually doing it
- Users are unaware of what activities are safe or not
- Using the phone doesn't hurt them

# Experience Prototype 1: Owen

**Able** to bear consequences



**Unable** to bear consequences

## Solution 2

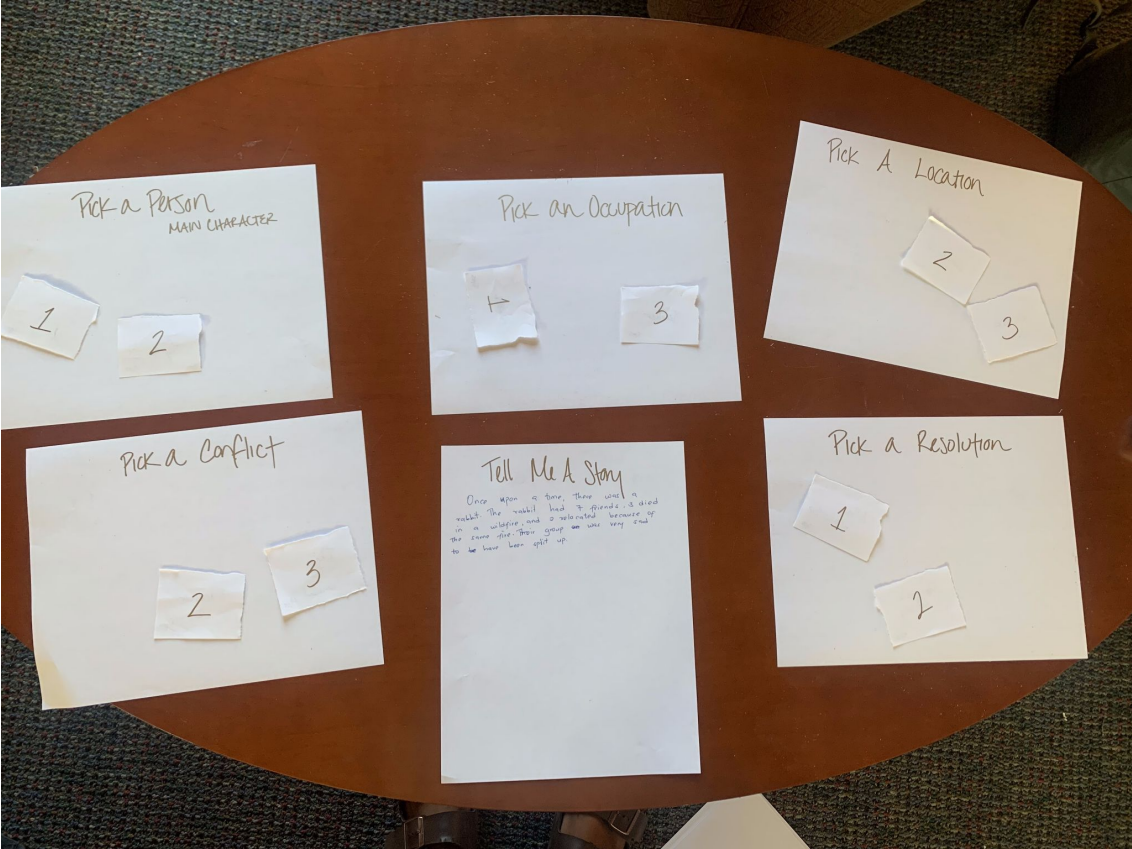
Build an app that makes a game of sharing symptoms

### Assumptions:

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



# Experience Prototype 2: Sam



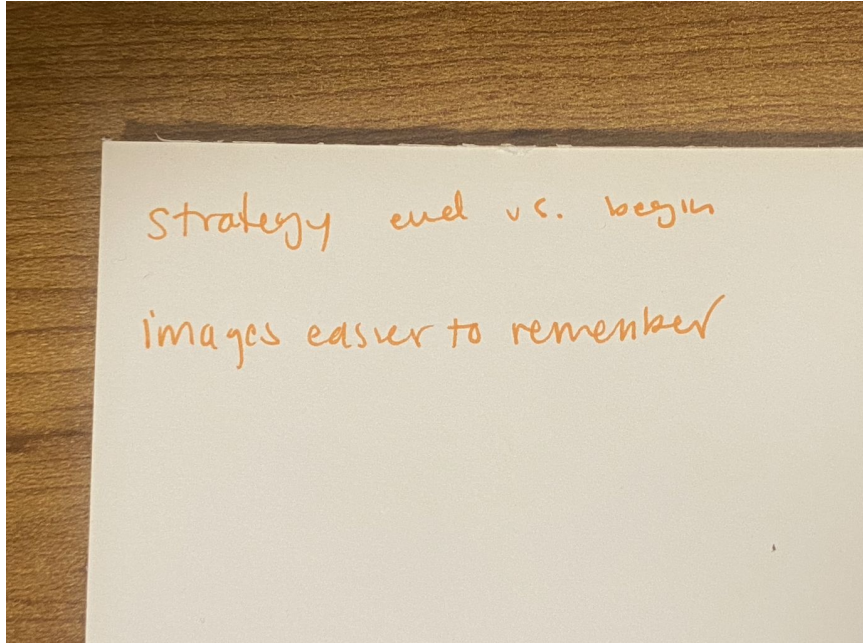
## Solution 3

Build an app that allows users to create a recovery storyboard

### Assumptions:

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

## Experience Prototype 3:



At first hesitant to log experiences, but later utilized the notepad.

carriage	x	stem	x	method		writing	x
certain		water	x	parrot	x	stop	x
box		rest		worry		expansion	
doorknob		napkin		song		alley	x
egg	x	correction		surprise	x	rain	
jungle		quality		boring		root	
late		scarf		answer		statement	
pursue		study	x	harvest		toe	
january		confuse		nonsense	x	rate	
rapid		fashion		error		station	x
scene		siren		touch	x	scene	x
traffic		riverbed		tractor	x	rub	
woe		wool		home		pot	x
zipper		timely	x	portrait		rock	x
ham	x	signal	x	survive		oatmeal	x

Reflected upon strategy and displayed improvement

# Recovery Storyboard



(Long shot)

# Risks and Implications

Who this solution **is** for:

- People in the recovery process who are looking for support / uplifting ways of expressing their current state

Who might this solution **exclude**:

- People with severe symptoms (no screen time)
- Those without capacity/time to track progress closely

Risks and Ethical Implications

- Privacy and Data Storage (HIPAA)
- Pressure to always show progress
- Over-reliance on social networks instead of medical professionals

# Thank you.

Appendix located in the following Slides

We met JAMES,

A 37-yr old

Make sharing how they  
are feeling daily  
(Symptoms, etc.) more exciting

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Mimes  
Have others read my  
mind

Gaming  
↳ pts. w/ ea.  
update

Having health  
prof. talk  
instead  
(AMPHAR)

Give money w/ ea. update

Personal Robot to read  
mind & communicate for you

Receive a positive reinforcement (a smiley face, a cookie, a compliment...)

- Write  
Self-Encouragement  
abt others

Have celebrities/  
someone they admire  
be there whenever they  
need to talk

- draw/make art/dance to how  
they're feeling instead of talking

- pigeonmail

# fun & safe

Simulation of  
the activity

Dance for  
monitoring  
sobriety %

Leverage hobbies  
to encourage  
activities

Concussion-safe  
items  
(similar to child-safe  
locks, etc.)

Have a companion  
to go through/watch activities  
with you

Eliminate potential  
for re-injury  
(magic cone)

System that  
corrects your execution  
of activity  
(walking, driving, etc.)

A tag, label, score...  
that shows how safe activity is

Performance enhancing drugs

Have someone do  
their daily tasks  
(ones they don't feel  
confident with)

Show progress of  
recovery

Celebrity educate  
benefits of activity

