

# Concussions ■

dealing with transitions, uncertainty, & lasting effects.

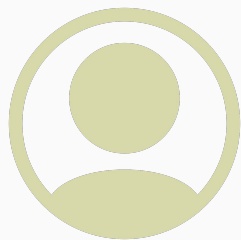
## the why ■

- Exploring the transitory period of short-term disabilities and potential long term effects to health
- Most people will be disabled at least one point in their lives
- Invisible disabilities present a unique design opportunity

# 1.6– 3.8M

concussions happen in the US each  
year.

## the why ■



20% of children are  
affected by a concussion  
by the age of 16



80% of concussions  
don't seek medical  
attention



30% of concussions have  
ongoing symptoms

# participants\* ■

**Jamie**

Ex-firefighter/  
paramedic student  
1+ year of symptoms

**Tina**

South African  
government official  
6 mo+ of symptoms

**Rose**

Stanford MS Student  
1+ year of symptoms

**Nadia**

Waiter and part-time  
student  
1+ year of symptoms

**Charlotte**

Stanford junior  
6 months of symptoms

**Kady**

Architect/ Urban  
designer  
Pending

**Katrina**

Occupational therapist  
Pending

**Chloe**

PM at zoom  
Pending

\*names have been changed to provide anonymity

# what we asked .

Actions/feelings surrounding their injury

Relationships with friends and family

Workplace accommodations

How their life has been affected by their injury, how they deal with symptoms

How they view and track their health journey

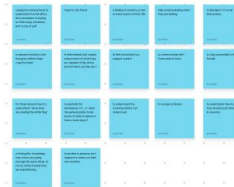
How others perceive their disability



# empathy map



PEOPLE WITH BRAIN TRAUMA NEED...



## INSIGHTS





# meet Jamie ■

**Jamie is a 37 year old paramedic student currently on disability leave living in the Bay Area.**

**They injured their head in a non head contact bike accident where they also broke their tailbone.**

“I did a lot of not talking for a long time... because I couldn’t get the words out fast enough to respond in the moment it was happening”

“I haven’t talked to my friends in almost a year, because I couldn’t remember their names for almost 6 months.”

“And then you add loss of sense of self loss of identity, loss of the parts of you that are valued by society, loss of connection to friends, inability to describe your experience and therefore connect with others and be understood, it is a gnarly experience.”

# meet Tina ■

**Tina is a horseback-riding enthusiast who's passionate about her work for the South African government**

**She injured her head falling off their horse, which has caused many of her previous concussions.**

"Psychologically I actually needed to get out and start doing things again"

"I'm 100% confident i'll recover, the only question is how long will it take"

"I don't feel like i'm less of a person... but i do worry... there's going to be a mistake [in my work]"

# meet Rose ■

**Rose is a 24 year old engineering graduate student, taking part time classes and working as a teaching assistant.**

**She injured her head at a summer internship last summer walking into a glass door, she also cared for her partner while she suffered a concussion at the beginning of their relationship.**

“And it was almost a little bit wild because Cam would want to say something and she make a sound and a hand motion. And I would have to figure out what she meant. It’s like you’re playing charades all the time... but there was always this level of frustration from Cam because she couldn’t say she wanted to say.”

Like for me, so much of whether I have a good day or not is related to like how many symptoms I am having... if I feel better I can do more.... the worst part about having a concussion you can’t distract yourself from it... When I am having these symptoms, I just get so defeated and you are just in your head.

# Meet Charlotte ■

**Charlotte is a high achieving CS student, highly involved in her classes and extracurriculars.**

**She fell off her bed and hit her head during the end of Winter quarter.**

“As a CS major, I couldn’t look at my screen for more than 2 minutes”

“I hit a mental low”

“The physical repercussion sucked, but they improve over time. The biggest impact on me was mental.”

“It was hard for people who don’t know me that well, whereas my friends and professors who are seeing me struggle to get through my days, it’s more visceral.”

# meet Nadia ■

**Nadia is a college student and restaurant worker, hoping to one day become a therapist**

**She has suffered three concussions within the past year (on a deck, at a football game, and at work).**

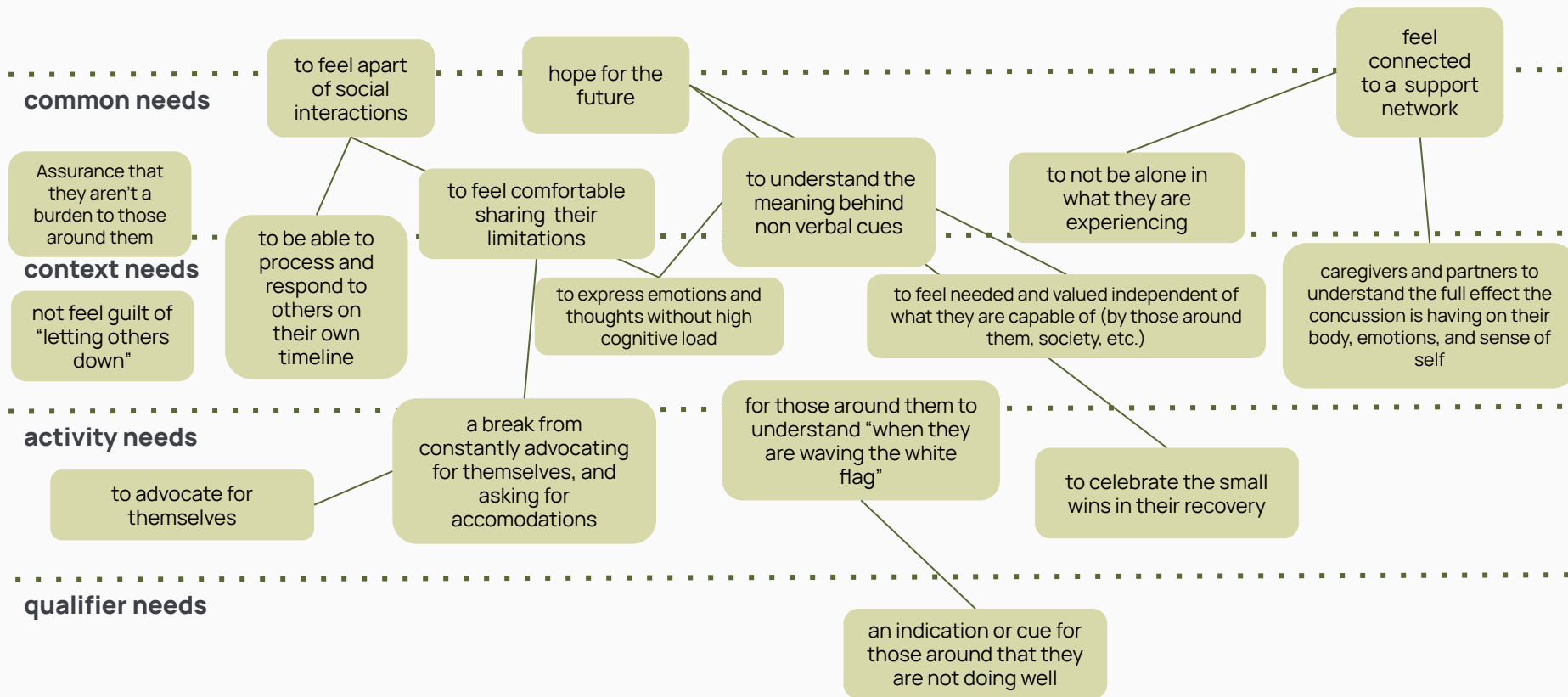
“going to the grocery store felt like, like an achievement. I remember... that’s when I was like, okay, I am like getting better.”

“[My bosses and coworkers] weren’t being all that nice before I got a doctor’s note. ”

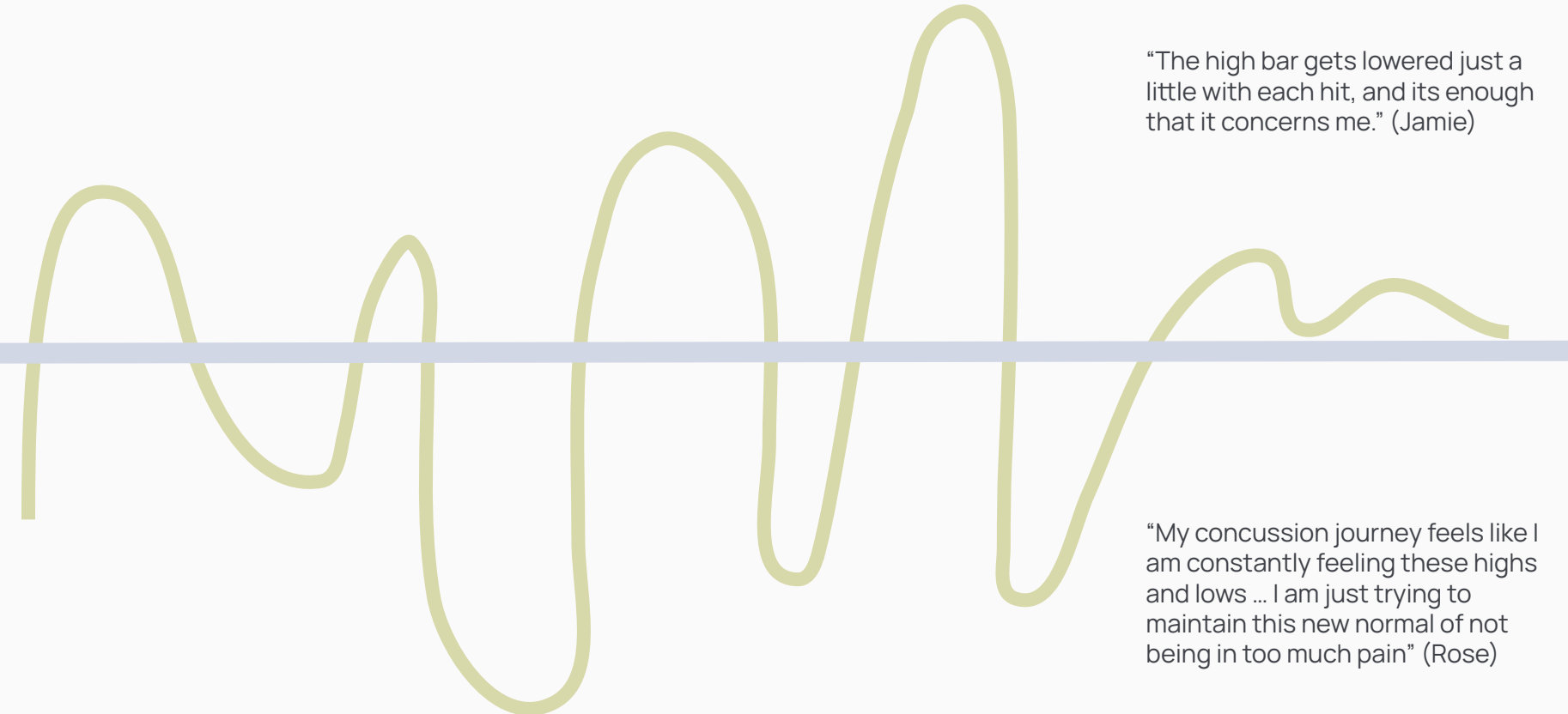
“when you explain to people how bad it is, you feel like you’re like trying to get people to feel sorry for you, which is not really what I want.”

“I don’t think I’ve ever felt more down than I did when I’ve had [concussions]”

# key needs



# recovery journey ■



"The high bar gets lowered just a little with each hit, and its enough that it concerns me." (Jamie)

"My concussion journey feels like I am constantly feeling these highs and lows ... I am just trying to maintain this new normal of not being in too much pain" (Rose)

# key insights ■

Without a caretaker(s) that understand the depth of the concussion symptoms and journey, it is easy for a breakdown in the relationship to occur

Having something tangible to work on and feel a sense of confidence/mastery in helps regain some sense of self

People with brain trauma are constantly worried about how they are perceived by others since they often don't feel like themselves

People with brain injuries can feel isolated in social contexts because they are unable to process conversations as quickly as they are happening around them

Each low point or bad day in your concussion journey often spirals because of the overwhelming weight of the fear and uncertainty of how long it will last

Every moment in each day feels like "you are crawling in the desert trying to find water"...where you are only able to be focused on getting through each task



## next steps ■

Conduct more interviews with  
those with less extreme stories  
+with the caregiver/partner of  
those experiencing concussions

Construct HMW and POV  
statements based on the  
interviews

Design experience prototypes  
to test our current insights and  
proposed needs

**Thank you ■**

# Appendix ■

# what we asked ■

- Walk me through the day you received a concussion.
- How did you let your school/workplace know about your concussion and the accommodations you need(ed)? Did you experience any pushback?
- How do you track your symptoms?
- How do you deal with particularly bad symptom days?
- What has helped you most in adapting to your concussion?
- How helpful do you feel like these support groups are? What do you get out of them?
- How do you wish you would have been able to communicate with your friends ?

- What hindrances or steups do you notice in your daily life that weren't there before? What could you do before that you can no longer do?
- Is there anything that you couldn't do before that you can do now?
- How have you changed as a person since the onset of your concussion?
- How have your family and friends reacted to your concussion?
- How do you think other people perceive your disability?
- What do you wish people knew about living with a concussion?
- What makes you hopeful for the future?

# interview details ■

Jamie (extreme user)	Tina	Rose	Charlotte	Nadia
<p>Found on Meta's Post-Concussion Syndrome Support Group</p> <p><b>Fractured their skull at 5 years and has had 4 concussions in total</b></p> <p>Interviewed in-person by Kyra, Sadorian as notetaker</p>	<p>Found on Meta's Post-Concussion Syndrome and Brain Injury Support Group</p> <p>Chosen due to having 10+ concussions over their lifetime</p> <p>Interviewed over Zoom by Kyra, Sadorian as notetaker</p>	<p>Chosen due to having had concussive symptoms for 1+ year</p> <p>Interviewed in-person by Kyra, Sadorian as notetaker</p>	<p>Chosen due to having concussive symptoms for 6+ months</p> <p>Interviewed in-person by Hong, Crystal as notetaker</p>	<p>Found via Facebook Group</p> <p>Chosen due to having had concussive symptoms for 1+ year</p> <p>Interviewed over Zoom by Crystal, Hong as notetaker</p>

# empathy maps link ■

<https://www.figma.com/file/zTqqDxz7MpzgctMmN3l9Je/empathy-maps-%2Finterview-breakdown?node-id=0%3A1>