

**U** RESTART



an interactive explainer about the effects of intergenerational trauma on mental health

Content warning: mental health, war, poverty, bad parenting, forced emigration

Start

# **The History of You**

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#### **Problem Statement**

Nearly 59 million immigrants have arrived in the U.S. in the past 50 years, mostly from Latin America and Asia. In 2020, a near-record 14% of the country's population is foreign-born compared with just 5% in 1965. This number does not include the first, second, and later generations of descendants, who are shaped by their ancestors' cultural traditions and personal histories. Many of these histories, which prompted them to immigrate in the first place, are filled with stories of war, impoverishment, forced emigration, and other difficult events, and these experiences by the first generation can get passed down to future generations in a phenomenon known as intergenerational trauma. [1] [2]

Intergenerational trauma is defined as trauma that gets passed down from those who directly experience an incident to subsequent generations. Intergenerational trauma may begin with a traumatic event affecting an individual, traumatic events affecting multiple family members, or collective trauma affecting a larger community, cultural, racial, ethnic, or other groups/populations (historical trauma).

This mainly gets passed down through direct caregivers (parents) and community members, and the effects are often written on the body (health outcomes).



This sketch combines key insights written on post-its with the overarching themes and their interrelated connections, such as how repression can result from perceiving suffering as "good," even as it causes leads to shame and guilt that may worsen mental health.

#### **Target Audience and Importance**

As the U.S. continues to diversify in race and culture, it is important to examine how such marginalized individuals — particularly those of the later (current) generations — adapt to the mainstream and process their intergenerational trauma.

Our target audience is young individuals from marginalized groups who may be experiencing intergenerational trauma. Our interviews suggest that while our interviewees have some understanding of how familial and cultural contexts affect their mental health, the task of recognizing how trauma can be passed down and shape their perspectives can be confusing because of the complexity and range of lived experiences among generations. While cultural values are often important to our interviewees, it can be difficult to separate the positive and negative impacts of certain familial and cultural traditions on their mental health journey.

Thus, we are especially interested in **how intergenerational trauma affects** people of color descended from immigrants in the past 50 years, and their view on mental health treatments and their relationship to their culture.



This is important because intergenerational trauma has a profound impact on how children will:

- 1. interact with others
- 2. respond to life challenges
- 3. regard themselves and their self-esteem
- 4. parent their own children and potentially continue the cycle

When intergenerational trauma is not identified and addressed, the negative impacts perpetuate and compound through generations.

As trauma psychologist Dr. Elena Cherepanov of Cambridge College in Boston surmises, "Living under such difficult, oppressive circumstances... can lead parents to formulate fear-based 'survival messages' that they pass on to their children and grandchildren ideas like 'don't ask for help—it's dangerous.'" While such messages may have helped the first generation survive, this intergenerational trauma can still leave scars through at least three generations. [3]

#### Goal

Our goal is to create an interactive explainer that explores the effects of intergenerational trauma on later (current) generations' perspectives on mental health and its relationship to their culture.



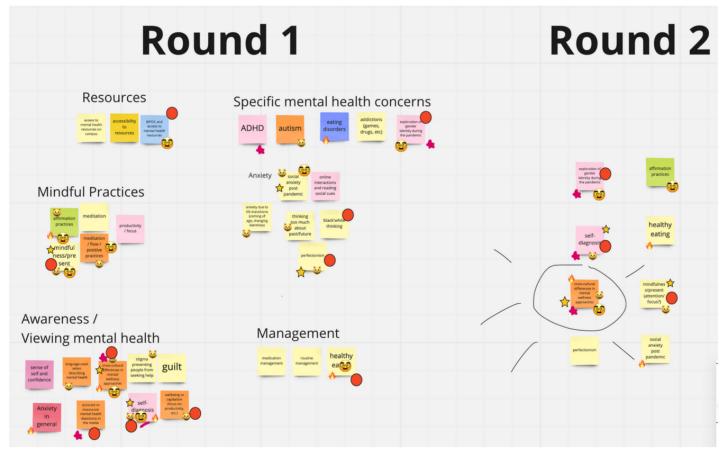
This interactive explainer will:

- 1. identify the components of intergenerational trauma and their corresponding negative effects passed down through parenting
- 2. convey an emotionally resonant story with which readers can potentially selfidentify
- 3. illustrate the complex, often ambivalent decision-making within each generation by asking the reader to make choices, and then showing the outcomes

We hope that by breaking down and identifying the components of intergenerational trauma and their negative effects, young people will be able to be more aware of how this implicit force is affecting their life. While this is not a solution for addressing the trauma, we believe increased awareness is the first step towards breaking the cycle of intergenerational trauma.

# Ideation, Research, and Models

From the initial formation of our team, we knew we wanted to explore how culture affects mental health, but given the month-long scope for the project, we continued to narrow down our problem space as we conducted research and ideated.



Our initial brainstorm demonstrated that we were most interested in mental health awareness, particularly for cross-cultural approaches to mental health. We conducted interviews with this broad topic, and from our research, we decided to further narrow our scope to intergenerational trauma.

#### **Initial Research**

We conducted interviews with 12 responders to our screener (Appendix 1) who were primarily Stanford students who self-identified as people of color.

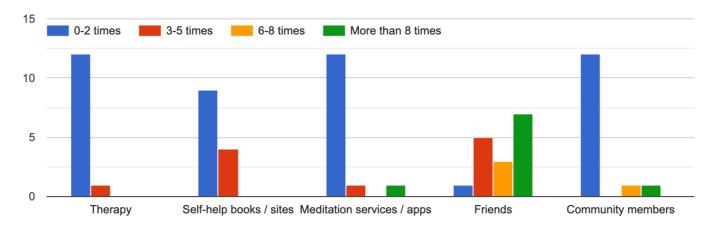
We hoped to hear about these individuals' intersectional experiences with mental health and their cultural traditions. We interviewed our participants with an interview guide (Appendix 2) to ensure we collect similar information from each participant, while also leaving room for follow-up questions to learn more about the problem space.



- 1. Self-identified as a **person of color**
- 2. Currently a student or recent graduate of a highly-ranked university (age 18-24)
- 3. Willing and available to discuss their experiences with mental health resources

Participants recounted their difficulties expressing their mental health concerns to their families and communities, given that so many of their ancestors "survived through worse." This often lead to emotional suppression, shame, and unhealthy coping mechanisms such as perfectionism, and often lead to a fear of discussing their vulnerabilities with others.

How often have you accessed these mental health resources in the past 4 weeks?



This is a data visualization of self-reported access to mental health resources by the 14 POC responders to our screener questionnaire in Google Forms.

#### Quotes

One interviewee noted that in the **second grade**, they heard their parents express: "We're going to disown you if you mess up on an assignment." They later found out that this was meant to be encouraging, but they were "genuinely terrified" for several years they would be put up for adoption, and they always had an escape route planned.

One interview recounted that when they struggled to make friends their freshman year, "I suppressed my sadness and focused on doing really well in school, but when I struggled in my classes and didn't even have that to count on, then I just felt numb."

One interviewee said that even with supportive parents, "before college, I thought of mental health as 'Oh! You have an illness!'" and this made it harder to accept taking "mental health days" since they thought they "didn't have the right" to have one.

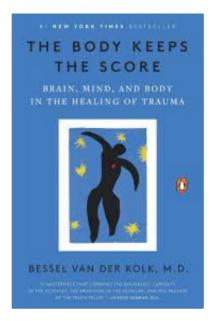
#### **Secondary Research**

We also researched secondary sources from Pew Research, Science, The American Psychological Association, and established trauma researchers to gain a basic understanding of the effects of **intergenerational trauma**, such as how parents' emotional trauma can get passed down into their children's mental wiring. [4-11]

One particularly notable work was "The Body Keeps the Score" by trauma researcher Dr. Bessel Van Der Kolk, who astutely noted:

"The greatest sources of our suffering are the lies we tell ourselves," [Dr. Semrad would] say, urging us to be honest with ourselves about every facet of our experience. He often said that people can never get better without knowing what they know and feeling what they feel."

"We are a hopeful species. Working with trauma is as much about remembering how we survived as it is about what is broken."



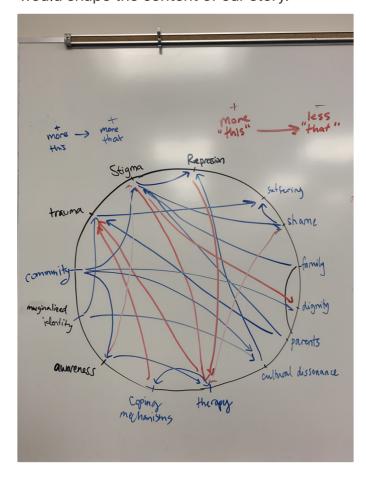
# **Synthesis**

We summarized our primary and secondary research through a timeline (mapping events and emotions to past, present, and future generations) below (See Appendix 3 for interview synthesis).



We collated our 60+ insights and key words and grouped them into topic clusters, organized on the y-axis by generation 1, 2, or 3.

We consolidated our findings from across the interviews into several mental models (Appendix 4) which clarified how topics like "cultural dissonance" and "family" intertwine, and how these would shape the content of our story.

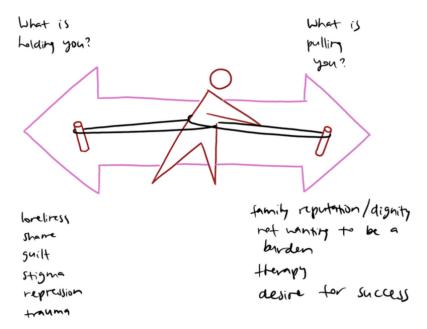


#### **Connections-based Model**

The **connections-based** mental model shows the **interconnected web** of trauma, stigma, family, and dignity can intersect and influence outcomes.

For example, family and cultural pressures can prevent an individual from seeking professional mental health resources in fear of social stigma on them and their loved ones.

#### **Rubber band Model**



Drawing on the connections-based mental model, the **rubber-band** model focuses on directly illustrating **a single concept**: a marginalized person of color **may be held back** from or **propelled** towards seeking help for several reasons, which may be interconnected.

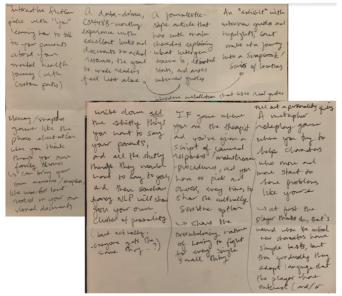
For example, while someone may want to seek help for their mental health crisis so they are not a burden on their families and they can be more successful, they may still be afraid of the social stigma on their families if their mental health concerns become publicly known.

#### **Ideation and Storyboarding**

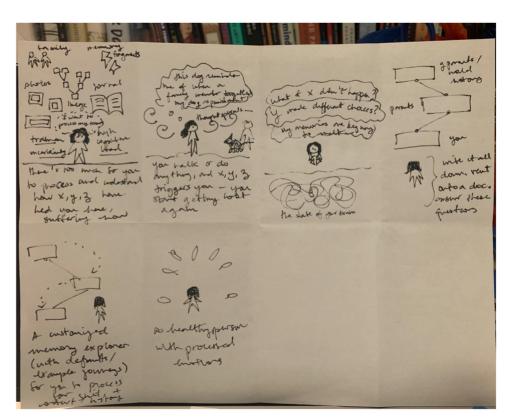
After our 12 interviews and secondary research that reiterated the importance of confronting one's full personal history to understand one's instinctive mental models, we were inspired to focus on storytelling for understanding. This was especially suited to our interests and specialities in game design, creating writing, and art practice.

We **generated over 60+ ideas** on this theme as a team (Appendix 5A), using the crazy 8s and dark horse methodologies.

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An example of several crazy 8s to generate ideas, with another set of "dark horse" concepts.



A quick illustration of the desired impact on a user, to read this story and be inspired to process their own personal traumas.

function to

change choices.

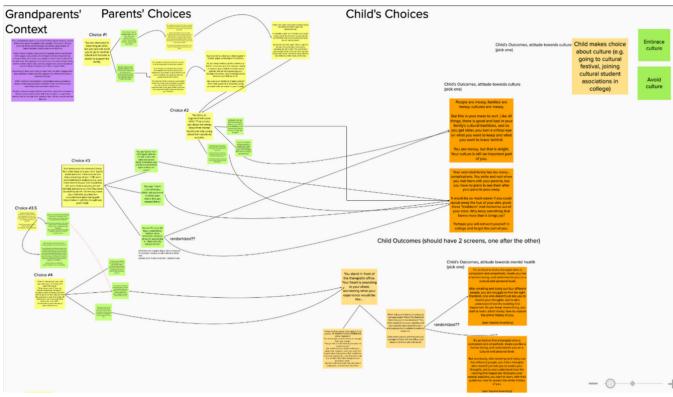
We decided to create an interactive explainer that allowed readers / users / players to explore a fictional personal family history — and make choices as if they were living in each generation — as a way to process and understand the lingering effects of intergenerational trauma.

# **Iterations**

We engaged in 3 rounds of usability testing with approximately 18 users.

### **Initial Prototype**

For our interactive fiction piece, we decided to use the application **Twine**. However, as Twine does not have built-in collaboration, we collaboratively worked on the branching narrative using a **Mural board to map out key events**, **choices**, **and outcomes**.



As Twine does not support cross-collaboration, we mapped out key events, choices, and outcomes using Mural.

#### **Story Threads**

"You" the reader / player / user make choices as if you are the grandparent (Generation 1), parent (Generation 2), or child (Generation 3) in a POC immigrant family.

The main story threads:

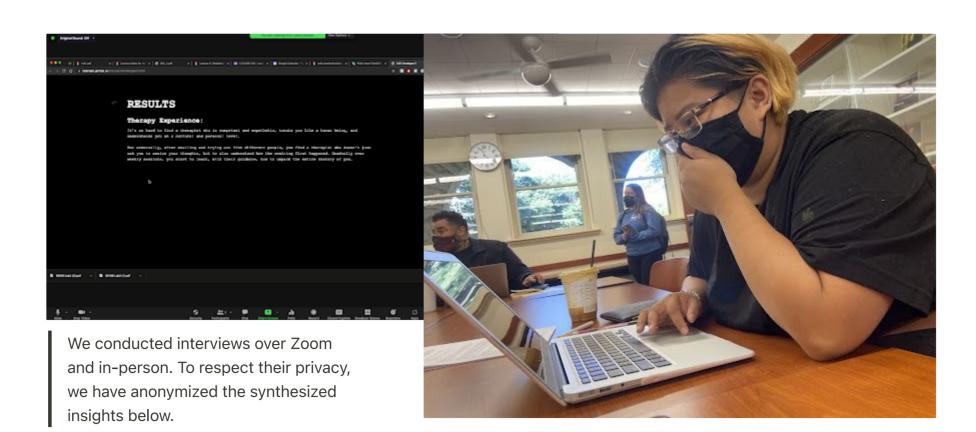
**Generation 1:** After living in poverty and being displaced from your home, you are determined to ensure that your children will have a better life. Even if it means sacrificing all your health and energy, you need to save as much money as possible to give your children the best education they can have.

**Generation 2:** You grew up sharply aware of how your parents have overworked themselves to provide for you and your siblings. Your parents heavily encouraged education as a source for social mobility, and as they could only afford to send one child to college, this child *had* to become successful and support the rest of the family.

**Generation 3:** You are conflicted with the cultural practices of your family and your new surroundings, and with new exposure to the importance of mental health in the Western tradition, you wonder if you should seek therapy to help you process the conflicting cross-cultural messages and increased pressure on you to succeed academically as the "most fortunate generation."

## Usability Testing, Round 1 & 2

We conducted Round 1 with 4 classmates in CS 247I, and Round 2 with 4 participants who are not taking CS 247I.



We primarily directed our questions to ask for critiques, and we synthesized our user testing into 3 key insights. The number in parentheses refers to the number of users reporting the issue.

Overall, every user found the story engaging and well-written. At least 2 users left teary-eyed

#### Issue 1



Options are **phrased too abrasively and not sympathetic** enough, and that there was "one right answer." Users report not feeling motivation to choose the other options. (4)

One such choice is below:

and thanked us for the experience.

Do they know what you have sacrificed to afford to raise them, and support your parents at the same time? If they think you are not being supportive by giving them a roof over their heads, then fine. You tell them they can leave your house anytime if they think they know better.

One choice that several readers pointed out was when the parent, upset that their child thinks they are not supportive, vents about their many sacrifices they have made.

While this anecdote is based on an interviewee's true story, the lack of contextualization — that the parent's own trauma with their unsupportive parents has been triggered, and their vent is an instinctive response — reduces reader sympathy.



Solution: We rephrased and added additional context to such choices, and overall tried to balance the text length and emotive content to make our choices more realistic.

You intend to explain that to make it as an immigrant, you have to focus on your education, but your long-festering resentment against your own parents rises to the surface. You ask seriously, "Do you know what my parents and I have sacrificed to afford to raise you in a home where you can grow up healthy without hearing your father loudly coughing through the night, or your mother worrying about food? So that your main worry is getting an A on an essay?" As soon as you start, you cannot stop, even though you know this will cut through them. "If you still think I'm not being supportive, then fine. The front door is open if you want to find new parents."

# Issue 2



Users want to have more choices in Generation 1 and 3. (2)



Solution: We intentionally confined decision-making in Generation 1 to show how severe trauma, such as impoverishment and forceful displacement, leads to people having limited choices, and we maintained this artistic decision.

However, to better contrast the options in Generation 1, 2, and 3, and illustrate how later generations have more mobility, we added additional choices in Generation 2 and 3 that directly related to the themes introduced in Generation 1.



A visual from Generation 1 that depicts how "you" are determined to sacrifice your health to give your children the opportunity at a better life, because your trauma prevents you from "taking it easy."

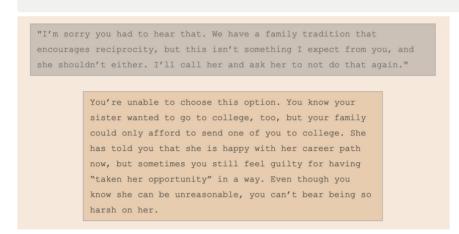
#### Issue 3



Users wanted to directly understand how their choices shaped their current path. (3)



Solution: We added more disabled choices (greyed-out) toggled by player choices, and added an explanation when clicked to show the player how their past choice led to this choice becoming unavailable.



In this example, the family could only afford to send one child to college, and the parent chose to attend and become a doctor, which "took away" the sister's opportunity. Even when the elder sister guilt-trips their child, they cannot call her out because they also still feel guilty.

# **Usability Testing, Round 3**

We conducted Round 3 at the CS 247I science fair. We received feedback from ~10 classmates.

#### Issue 4



Users had difficulty keeping track of their path in the branching, multi-chapter story, and they wanted to be able to view the main events and previous choices.



Solution: We added summaries of key events and choices after each generation.

# **GENERATION 2 SUMMARY** You grew up being sharply aware of how difficult your parents have worked to provide for you and your siblings. Despite your love for art, you decided to go to college and become a doctor to support your family. When your child accused you of not caring about their mental health and only about academics, you tried to explain to them the sacrifices your parents and you have made, and how important academic success is for immigrants like

We added a summary page in-between Generation 1 and 2, and Generation 2 and 3, which includes childhood development and their ensuing choices at each scenarios.

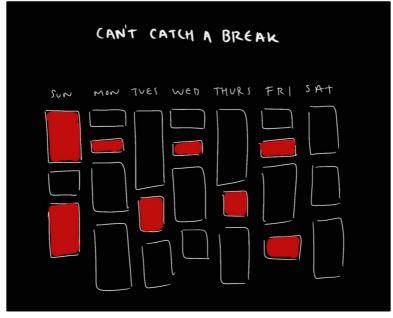
#### Issue 5



Users thought it was a text-heavy story without any visuals, and they wanted more aesthetic variation.



Solution: We separated the paragraphs of text onto different screens, and added interspersed the story with visuals at key moments.



This visual uses a simple red, black, and white color palette to add some aesthetic variation while directing attention to the text and interactions.

# **Additional Changes**

We added introduction and conclusion screens. The intro has content warnings to warn people of the difficulty of the material, and the conclusion has citations, acknowledgments, and further resources.

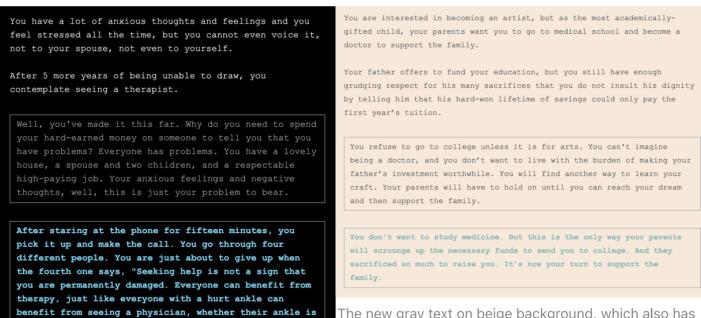
Content warning: mental health, war, poverty, bad parenting, forced emigration

The intro screen's content warning helps users decide whether to continue, and if so, to mentally prepare.

# Resources What is Generational Trauma? - health.com Breaking the Chains of Generational Trauma - Psychology Today Intergenerational Trauma: What It Is & How to Heal - Choosing Therapy

The resources included on the conclusion page help users who have finished the experience continue onwards for more understanding.

As white text on black backgrounds can be difficult to read, for accessibility reasons we changed our color scheme to gray text on beige background.



The original white text on black background color palette with blue selected text, which could get tiring to read.

broken, sprained, or shattered."

The new gray text on beige background, which also has the added benefit of being more comforting as the player goes through this difficult topic..

In service of the story, we added further descriptive details and more childhood experience anecdotes to enrich the reading experience for Generation 2 and Generation 3.

**GENERATION 2** All of your early family memories have a faint sepia overlay, but you can

pickled vegetables, the gossamer-light touch from when she ruffled your hair after you outgrew the feeding chair and could pick up your own utensils.

remember your mother's steady hands when she fed you steaming hot rice with

Add more descriptive details of Generation 2's childhood and increase player emotional investment.

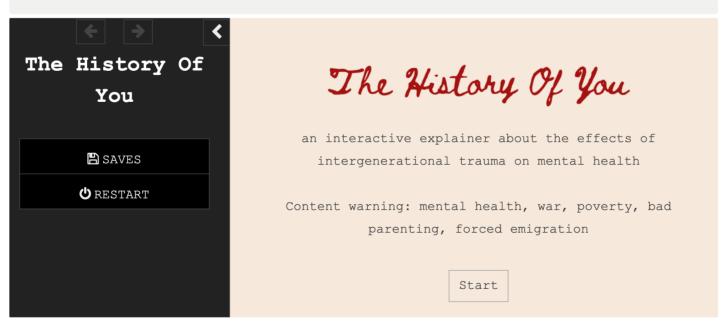
GENERATION 3

You took your first steps, first bike ride, and first drive in a bland, massproduced suburban neighborhood of little beige boxes, where your large home looked like every single one down the block. Inside, besides a few precious photos, cultural figurines, and traditional dishes still infused with the rich spicy flavors from their youth, the decorations would match a department store

Add more descriptive details of Generation 3's childhood and increase player emotional investment.

# **Final Product**





Thank you for playing! <3

# **Summary and Next Steps**

Unidentified and unaddressed intergenerational trauma (trauma that gets passed down from those who directly experience an incident to subsequent generations) can negatively impact mental health outcomes for later generations.

We created an interactive explainer in the form of interactive fiction told through the perspectives of three generations to help users recognize components of intergenerational trauma, emotionally identify with a story portraying this experience, and illustrate the complexity of decision-making while living in trauma, and how this affects later generations. Our next steps would involve:

- 1. **Testing** our "final prototype" with new users to get fresh insights, and also testing it out with our past interviewees to ensure we have respectfully fictionalized their anecdotes and experiences.
- 2. **Enriching the story** with more descriptive details, scenarios and choices, and accompanying visuals to increase player immersion and potential self-identification, which will help increase retention.
- Researching additional supporting material and potentially partnering with cultural
  organizations and experts in intergenerational trauma to improve the piece's content, and
  potentially reshaping the narrative to more directly inspire players to seek mental health
  resources as necessary.

## **Works Cited and Consulted**

- [1] https://www.pewresearch.org/fact-tank/2020/08/20/key-findings-about-u-s-immigrants/
- [2] https://www.facinghistory.org/resource-library/my-part-story/shifting-demographics-united-states
- [3] https://www.apa.org/monitor/2019/02/legacy-trauma
- [4] https://www.science.org/content/article/parents-emotional-trauma-may-change-their-children-s-biology-studies-mice-show-how
- [5] https://www.brainpickings.org/2016/06/20/the-body-keeps-the-score-van-der-kolk/
- [6] https://pubmed.ncbi.nlm.nih.gov/27659490/
- [7] https://www.tandfonline.com/doi/abs/10.1080/15325020600662757
- [8] https://psycnet.apa.org/record/1998-07925-016
- [9] https://www.researchgate.net/publication/262608802\_Rethinking\_Historical\_Trauma
- [10] https://pubmed.ncbi.nlm.nih.gov/25931287/
- [11] https://www.tandfonline.com/doi/abs/10.1300/J039v09n02\_02

# **Appendix**

#### **Appendix 1: Interview Screener**

Mental Health Screener.pdf 38.3KB

#### **Appendix 2: Interview Guide**

U InterviewGuide.pdf 48.7KB

### **Appendix 3: Interview Synthesis**

U InterviewSynthesis.pdf 85.2KB

# Appendix 4: All Model Sketches

U models.pdf 6722.7KB

# Appendix 5A: 1st Round of Ideation

OJ ideas.pdf 22484.4KB

# Appendix 5B: Top 2 Ideas

U topidea.pdf 927.5KB

## Appendix 6: User Testing Report (Round 1 & 2)

U usertesting.pdf 2142.6KB