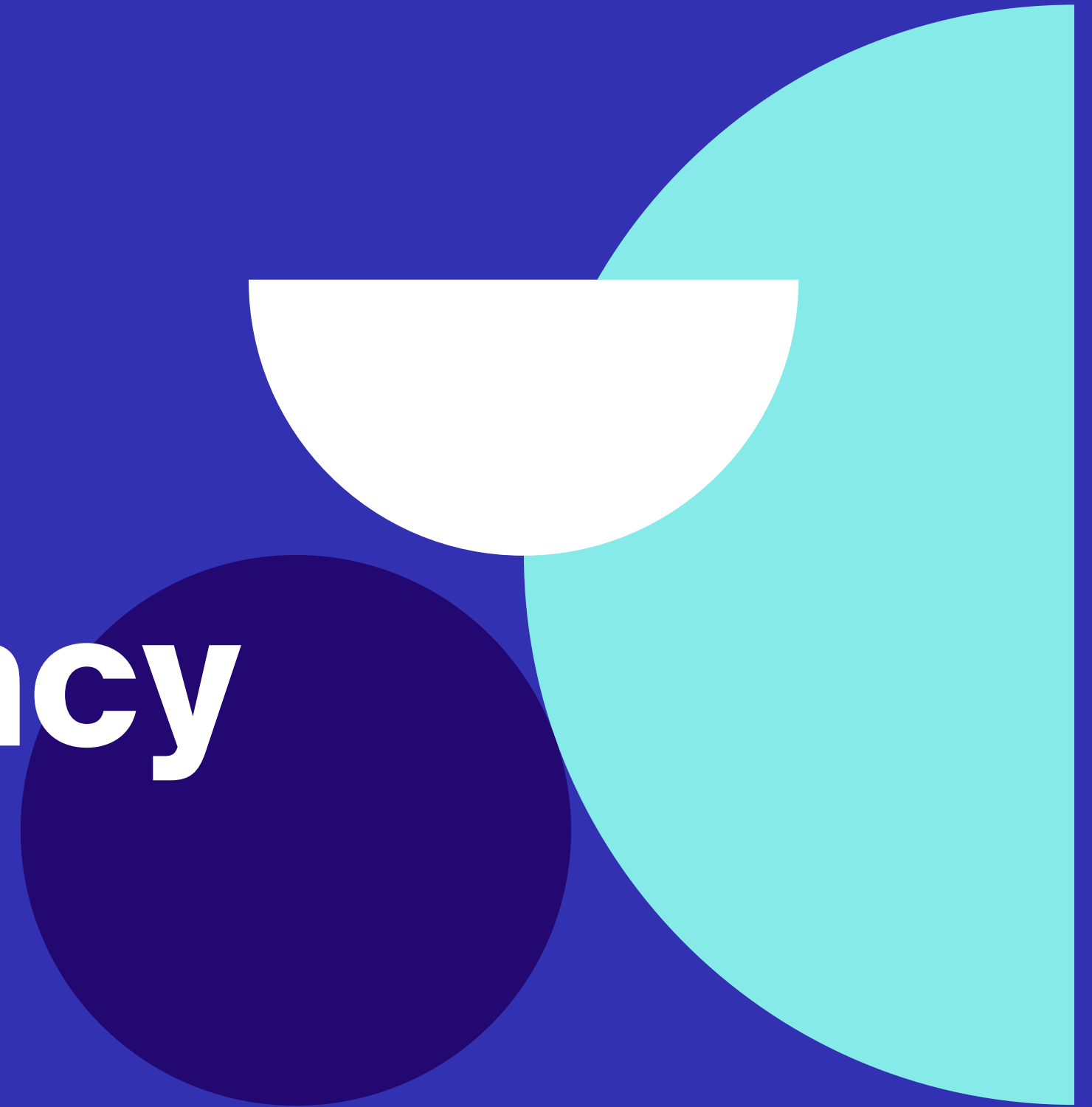


# Prototypes through Pregnancy

Divya Nagaraj, Nadin Tamer, Jessica Yu, Grace Zhang





# Our Team



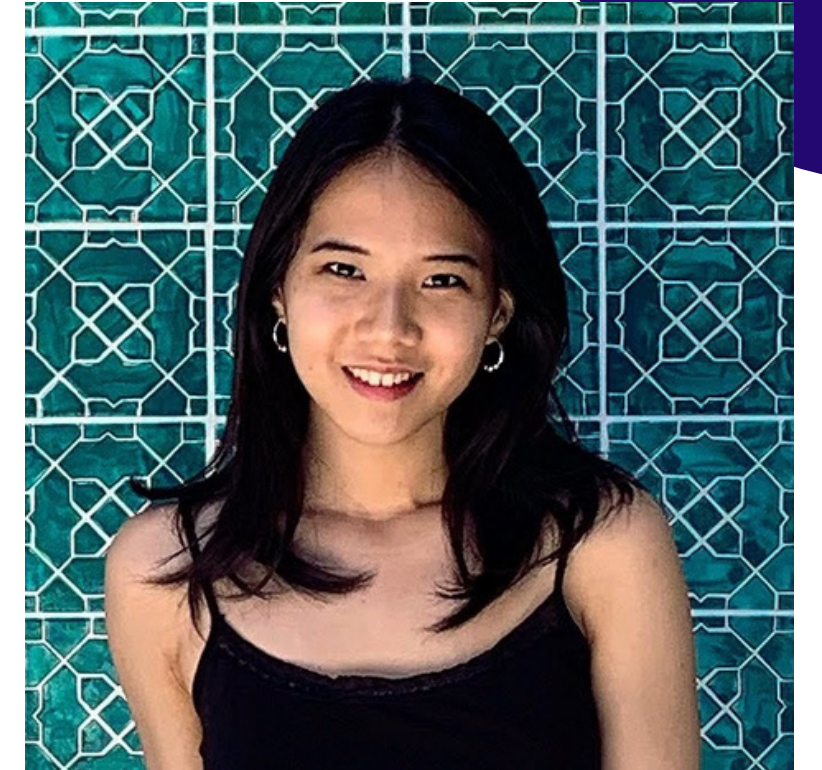
DIVYA NAGARAJ



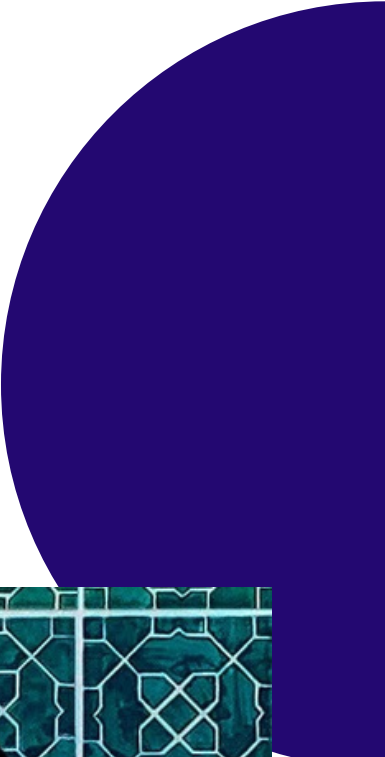
NADIN TAMER



JESSICA YU



GRACE ZHANG



# Our Problem Domain



HEALTH & WELLNESS

Pregnancy

# INITIAL POV

## WE MET...

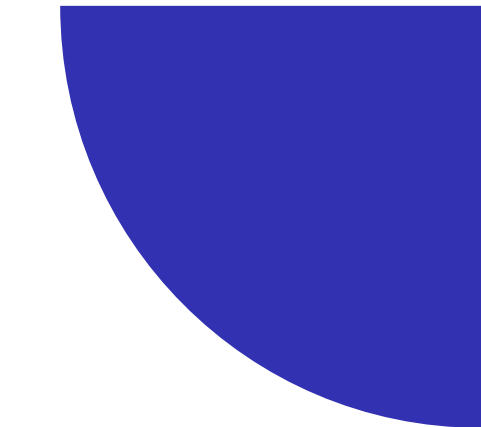
Ashley, a young mother starting IVF this week for her second child

## WE WERE AMAZED TO REALIZE...

Ashley needed to contact multiple different insurance agents before each visit to get her documents approved

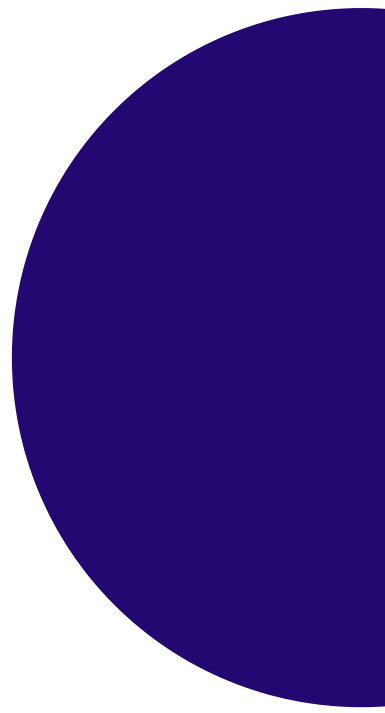
## IT WOULD BE GAME-CHANGING TO...

Seamlessly communicate between multiple stakeholders (doctors, partners, support network, insurance agents) through the pregnancy journey





# New Interviewees





# Georgia

Caregiver from Rockland, CA

- 23 Weeks pregnant
- Fiance recently had heart surgery
- Uses online forums like reddit, whattoexpect for information
- Favorite topic is what's going on with her baby ie “eyelids growing, taste buds forming”





**"I need more info,  
less opinions. Like  
professionals telling  
me: 'at this point in  
your pregnancy, this  
is normal.'"**

**- Georgia**

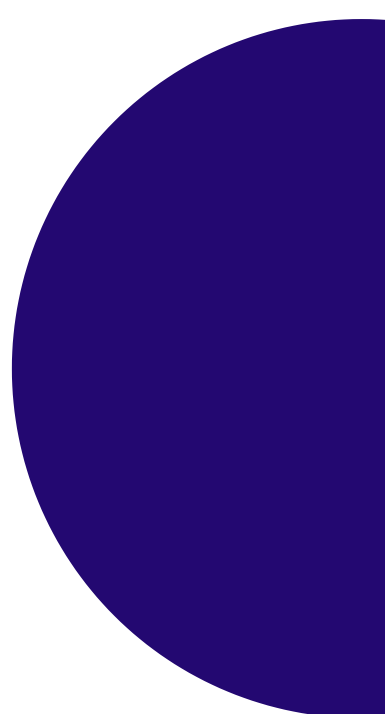




# Linda

## Engineer

- 31 years old
- Has OCD and autoimmune disorders
- IVF due to diminished reserve of eggs







**"It's like extortion  
for medical pain -  
what did I do to  
deserve this?"**

**- Linda**



# Updated POVs and Results



# POV

## #1

### WE MET...

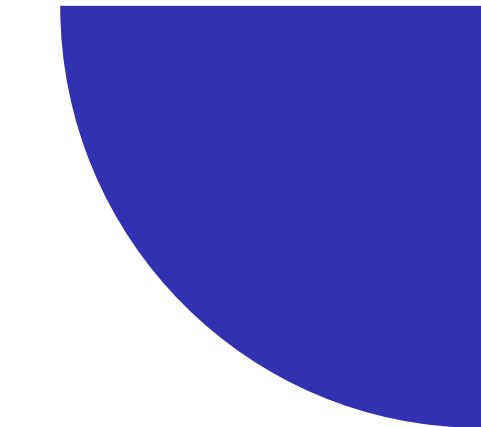
Sarah and Dan, a couple trying to conceive through their third round of IVF after having a miscarriage last year

### WE WERE AMAZED TO REALIZE...

Because he finds the process overwhelming, Dan struggles to proactively find information on IVF from sources besides Sarah, despite her explicit frustration towards loves ones not doing their own research

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

Help Dan support his wife by motivating him to more independently learn about IVF



# POV

## #2

### WE MET...

Emily, a waitress and grad student of advanced maternal age currently 12 weeks pregnant with her first child

### WE WERE AMAZED TO REALIZE...

Emily turns to online communities for information/support because she feels she doesn't get enough from her doctor and pregnancy apps but she worries about the reliability of non-medical sources

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

Help Emily reap the combined benefits of community support and the reliable information she receives from doctors



# POV

## #3

### WE MET...

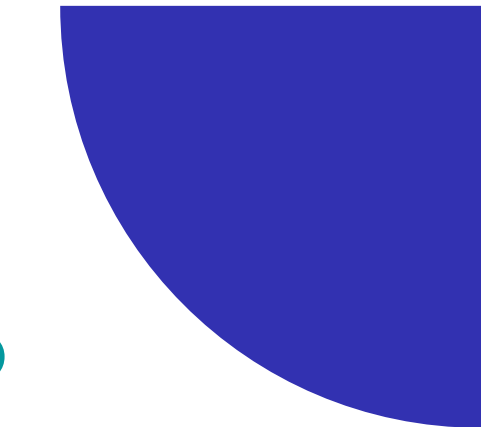
Laura, a translator currently 10 weeks pregnant with her second child after her first was born with serious heart complications

### WE WERE AMAZED TO REALIZE...

Laura's old coping mechanisms were rendered ineffective due to the added stress and unfamiliarity of her pregnancy, but multiple psychologists could not provide new adequate methods

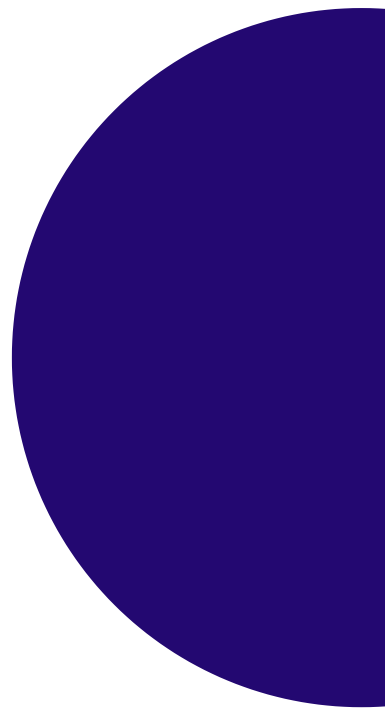
### IT WOULD BE GAME-CHANGING TO...

Equip Laura with actionable strategies catered to pregnancy that she can independently practice to support her mental health and emotional wellbeing





**How Might We's**



POV #1

**It would be game-changing to**

Help Dan support his wife by motivating him to more independently learn about IVF

**How might we...**

**Make researching pregnancy/fertility as a partner engaging instead of overwhelming?**

POV #2

**It would be game-changing to**

Help Emily reap the combined benefits of community support and the reliable information she receives from doctors

**How might we...**

**Augment trust and increase the flow of verified information on online pregnancy/fertility support communities?**



POV #3

**It would be game-changing to**

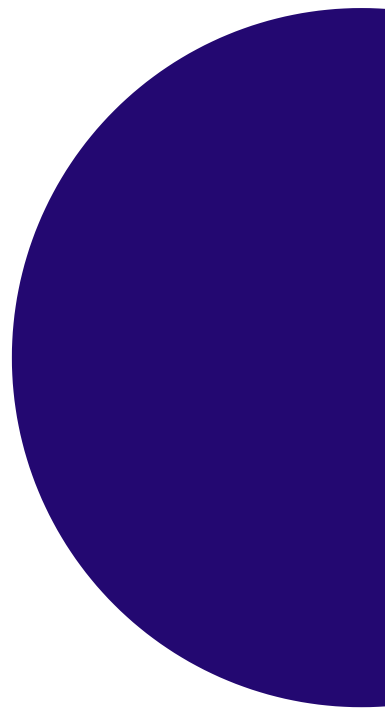
Equip Laura with actionable strategies catered to pregnancy that she can independently practice to support her mental health and emotional wellbeing

**How might we...**

**Help Laura repurpose her former coping strategies to better fit the new set of struggles she faces in pregnancy?**



# Solutions and Prototypes

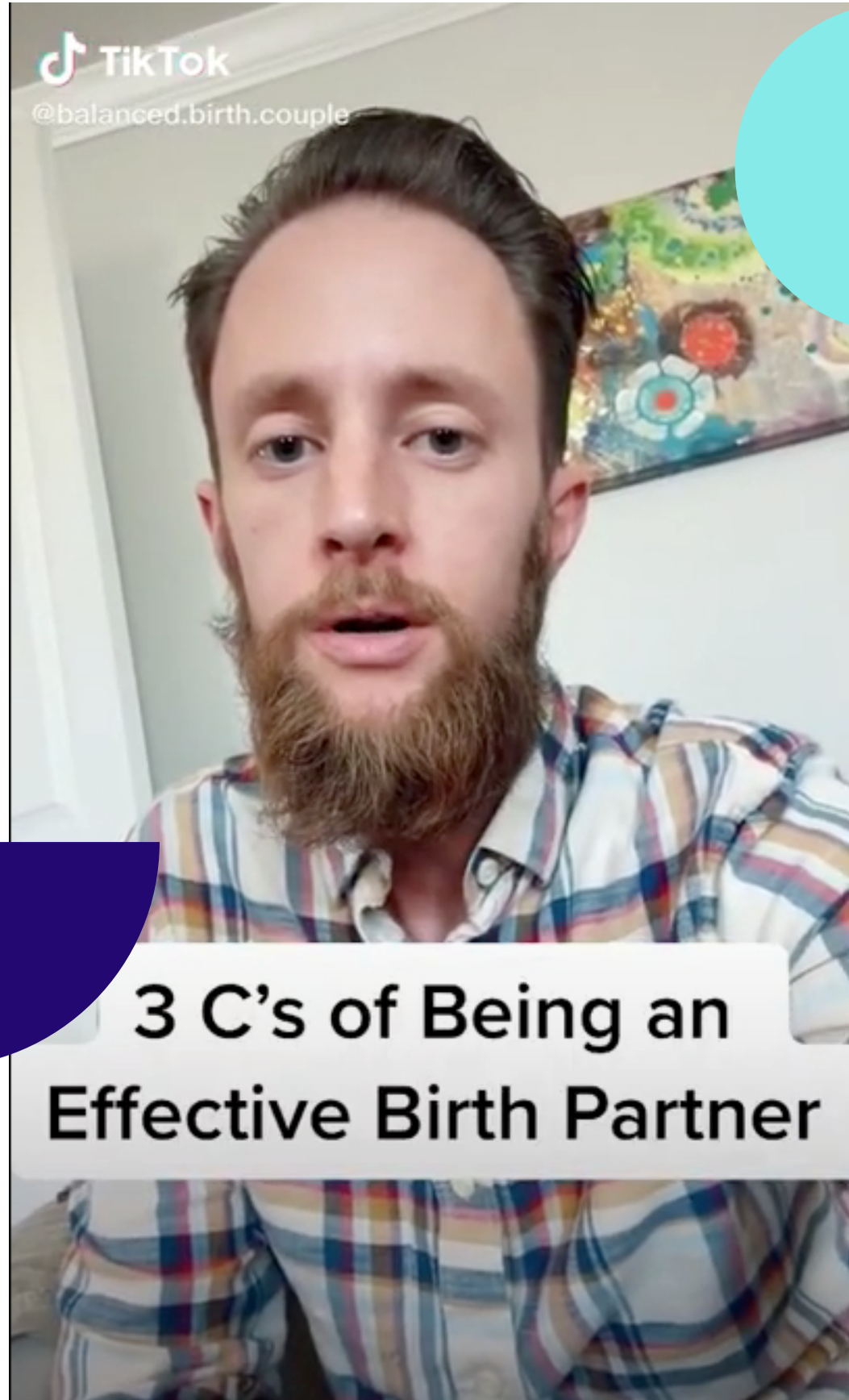


POV #1

How might we make researching pregnancy/fertility as a partner engaging instead of overwhelming?

**Solution:**

Deliver information in bite-sized chunks via a gamified format (ie: Tiktok or Duolingo for pregnant people's partners)



# Prototype 1

## ASSUMPTION

Individuals learn effectively from educational pregnancy content that is short-form & engaging

## DESCRIPTION

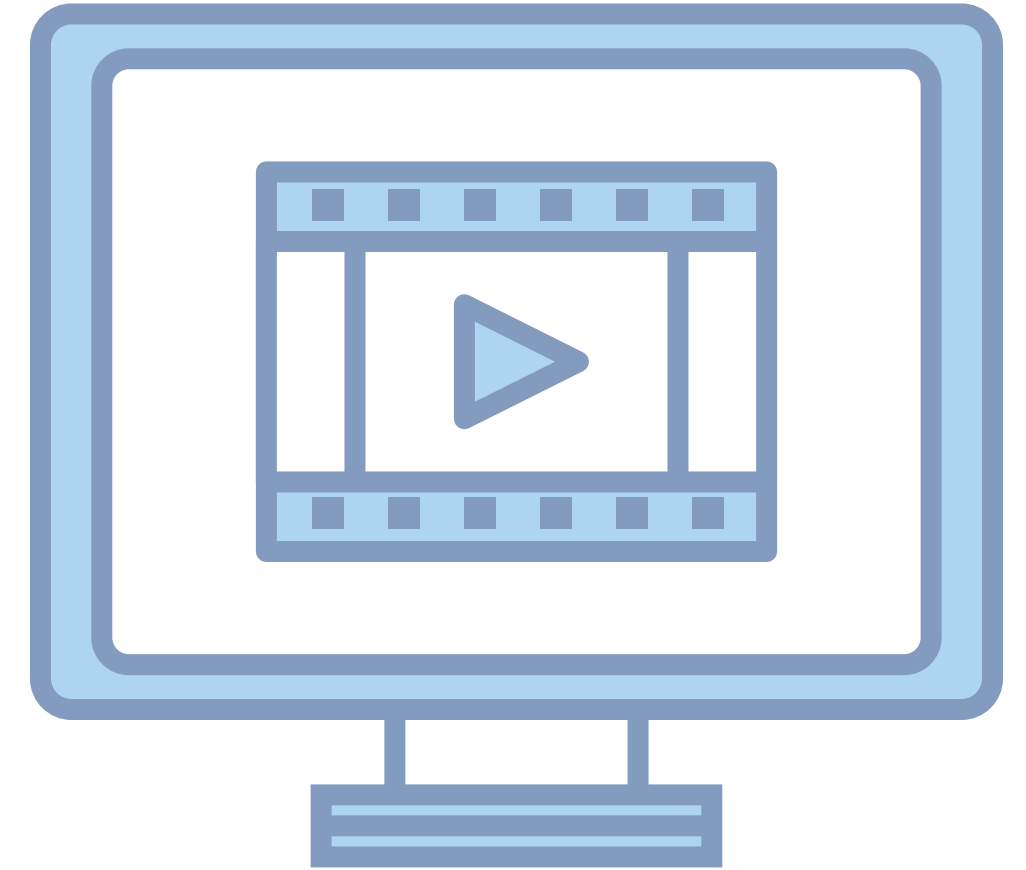
Participants watched a series of educational Tiktoks on pregnancy and were asked to write down what they learned and their level of interest

## METHOD

Through a Zoom interview and survey

# Prototype 1: Results

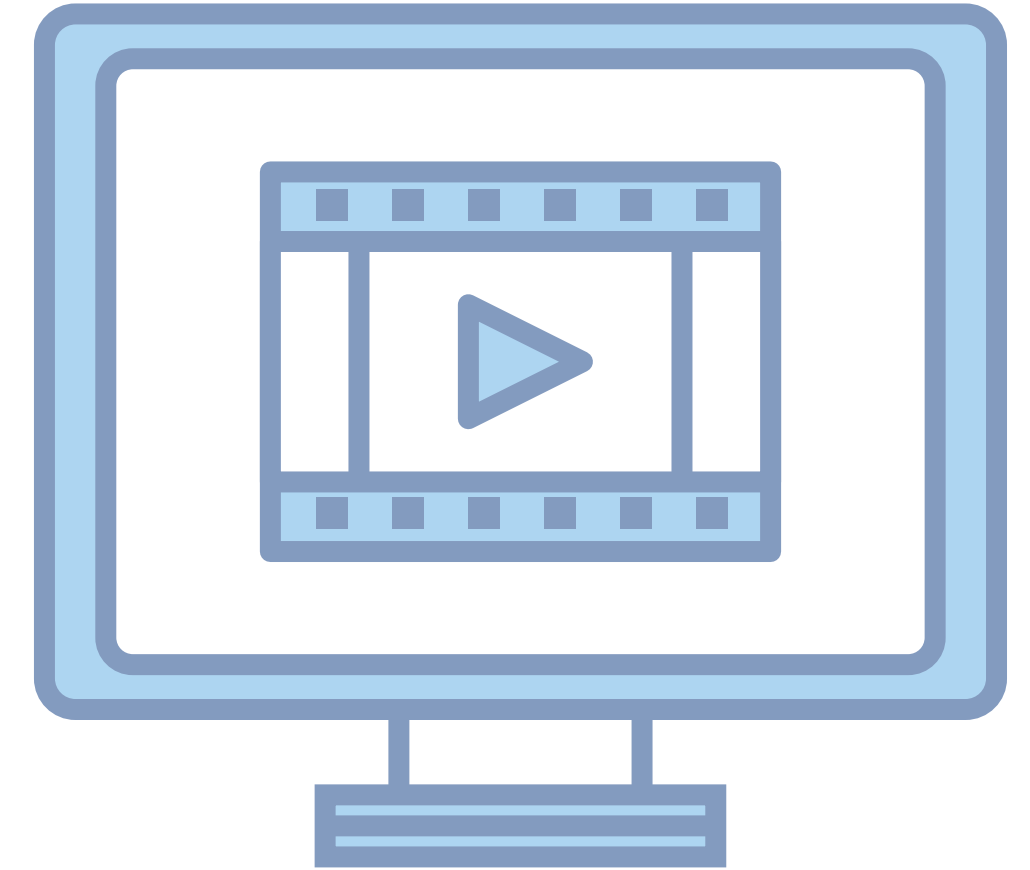
People find it easier to absorb new information when it's presented in engaging ways & accompanied by visual aids



- ✓ VISUAL AIDS HELPED PARTICIPANTS UNDERSTAND TERMS THEY HAD BEEN CONFUSED BY IN THE PAST
- ✓ WHEN GIVEN THE OPTION TO STOP OR CONTINUE WATCHING, PARTICIPANTS CHOSE TO **CONTINUE**
- ✗ PARTICIPANTS WERE **SKEPTICAL** OF INFORMATION IN VIDEOS FEATURING PEOPLE WHO DIDN'T LIST THEIR CREDENTIALS

# Prototype 1: Results

People find it easier to absorb new information when it's presented in engaging ways & accompanied by visual aids



PARTICIPANTS **RECALLED** INFORMATION BETTER IN THE VIDEOS THEY **LAUGHED ALONG WITH**



IT IS IMPORTANT TO STRIKE THE BALANCE BETWEEN **ENGAGING** AND **DISTRACTING** BACKGROUND MUSIC AND VISUAL AIDS



POV #2

# How might we augment trust and flow of verified information on online pregnancy/fertility support communities

**Solution:**

**Create a filterable, data-driven community for pregnancy/fertility**

2 → How trustworthy would you rate the following posts if you saw it on an online forum?>

◆ "If your morning sickness symptoms persist, your health care provider may recommend vitamin B-6 supplements (pyridoxine), ginger and over-the-counter options such as doxylamine (Unisom) for management. If you still have symptoms, your health care provider may recommend prescription anti-nausea medications." - drjill (verified doctor).

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all trustworthy

Very trustworthy

◆ "Ginger and ginger ale helped me. Saltine crackers when you can manage help as well. You can find these things at shoppers called Seabands that use pressure points to help with nausea, they don't work for everyone but I found it helpful." - user newmom2021

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all trustworthy

Very trustworthy

# Prototype 2

## ASSUMPTION

Users would be more open to sharing personal details when anonymous and would be more likely to trust answers linked to a verified user.

## DESCRIPTION

Users filled out a form to rate how trustworthy different mock posts were and were then asked to create posts for various privacy settings

## METHOD

Through 5 survey respondents & a Zoom interview including a reddit *moderator* of r/infertility



# Prototype 2: Results

Participants found it easier to ask questions anonymously and were significantly more likely to trust responses from verified medical professionals.



- ✓ PARTICIPANT **HIGHLIGHTED** THE "DR. JILL" USERNAME AND RATED IT **2X** AS TRUSTWORTHY AS OTHER POSTS
- ✓ PARTICIPANTS INDICATED **GREATER WILLINGNESS** TO ASK PERSONAL QUESTIONS ANONYMOUSLY
- ✗ PEOPLE WERE **JUST AS LIKELY** TO SHARE DETAILED AND RELEVANT RESPONSES WHEN THEY HAD THEIR NAMES ATTACHED AS ANONYMIZED

# Prototype 2: Results

Participants found it easier to ask questions anonymously and were significantly more likely to trust responses from verified medical professionals.



PARTICIPANTS PREFERRED TO **POST ANONYMOUSLY** BUT DID NOT NEED ANONYMITY TO RESPOND WITH **RELEVANT ANSWERS**



PARTICIPANTS **VALUE ONLINE FORUMS** AS A RESOURCE FOR **FACTUAL INFORMATION** IN ADDITION TO EMOTIONAL SUPPORT

POV #3

How might we help Laura repurpose her former coping strategies to better fit the new set of struggles she faces in pregnancy?

**Solution:**

Develop a tailored coping strategy recommender based on strategies the user already gravitates towards  
(ie: suggest art if user can no longer dance)

## Pregnancy Coping Strategies Questionnaire

- ◆ What coping strategies did you use to deal with stress before you got pregnant?
- ◆ What coping strategies did you use to deal with stress while you were pregnant?
- ◆ How effective would you say your coping strategies are compared to your pre-pregnancy strategies?

3 → How effective would you say your coping strategies are compared to your pre-pregnancy strategies?

1	2	3	4	5
---	---	---	---	---

Not at all effective

Much more effective

# Prototype 3

## ASSUMPTION TESTED

It is easier for people to stick to mental health habits that resemble what they're used to, especially when navigating an uncertain landscape such as pregnancy

## DESCRIPTION

Users filled out a form rating effectiveness of pre-pregnancy and current pregnancy coping strategies and were asked to reflect on their feelings about each

## METHOD

Through 6 survey respondents

# Prototype 3: Results

Pregnant individuals prefer pre-pregnancy coping strategies and struggle to find new ones that adequately support their mental and emotional health.



- ✓ AS PREDICTED, ALL PARTICIPANTS INDICATED THEIR NEW COPING MECHANISMS WERE **LESS COMFORTING** THAN THEIR PREVIOUS ONES
- ✓ PARTICIPANTS WHO WERE ABLE TO PRESERVE **MORE OF THEIR PREVIOUS STRATEGIES** INDICATED **HIGHER OVERALL SATISFACTION**
- ✗ PARTICIPANTS **CONTRADICTED** THEMSELVES IN THEIR RESPONSES, INDICATING POTENTIAL **CONFUSION** AROUND MANAGING THEIR EMOTIONAL HEALTH

# Prototype 3: Results

Pregnant individuals prefer pre-pregnancy coping strategies and struggle to find new ones that adequately support their mental and emotional health.



PARTICIPANTS **ATTEMPTED** TO RETURN TO USING THEIR OLD COPING MECHANISMS EVEN AFTER **GIVING THEM UP** DUE TO THEIR PREGNANCY



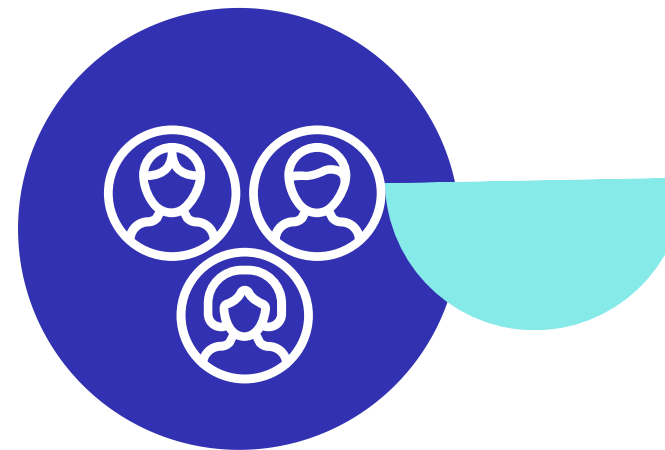
MANY PEOPLE **PRIORITIZED** SELF CARE MORE DURING PREGNANCY BECAUSE THEY FELT THEY WERE ALSO **CARING FOR THEIR BABY**

# Summary

## Solutions



Short-form  
Engaging  
**Visuals**



Data-Driven  
Filterable  
**Community**



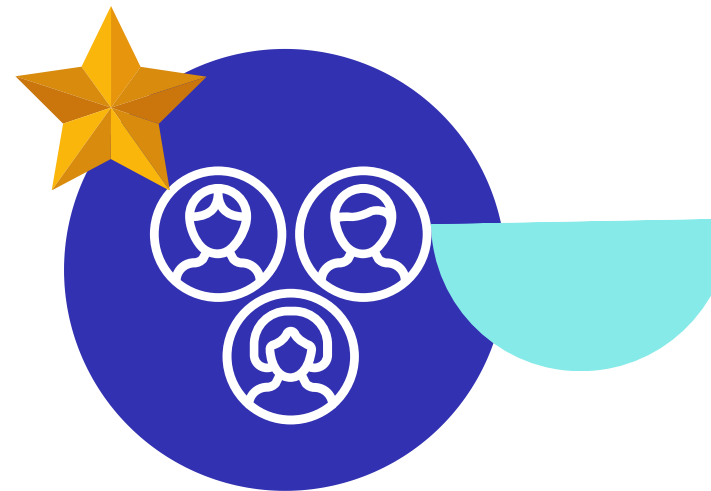
Tailored  
Coping Strategy  
**Recommender**

# Summary

## Solutions



Short-form  
Engaging  
**Visuals**



Data-Driven  
Filterable  
**Community**



Tailored  
Coping Strategy  
**Recommender**



**Thank you :)**  
**Questions?**



# Appendix

# POV #1

## HELP DAN SUPPORT HIS WIFE BY MOTIVATING HIM TO INDEPENDENTLY LEARN MORE ABOUT IVF

- How might we help the non-pregnant partner feel more involved in IVF/pregnancy-related healthcare, especially during the COVID pandemic?
- How might we provide more resources for people to learn about fertility and pregnancy?
- **How might we make researching pregnancy/fertility as a partner engaging instead of overwhelming?**
- How might we combat stereotypes found in family planning apps?
- How might we clearly and effectively deliver relevant information for the partner?
- How might we make the pregnancy/fertility research process like a game?
- How might we make it easier for partners to filter through misinformation about pregnancy/fertility?
- How might we encourage Dan to take the initiative to gather information on his own?
- How might we empower the non-pregnant partner to learn about IVF without relying as much on the pregnant partner?
- How might we help the non-pregnant partner better support and help their pregnant partner?

# POV #2

## HELP EMILY REAP THE COMBINED BENEFITS OF COMMUNITY SUPPORT AND THE RELIABLE INFORMATION SHE RECEIVES FROM DOCTORS

- **How might we augment trust and increase flow of verified information on online pregnancy/fertility support communities?**
- How might we make pregnancy communities more tailored to an individuals' needs?
- How might we use online communities to supplement pregnant individuals' potential unmet needs in their personal network?
- How might we help Emily feel supported in her pregnancy healthcare journey by ensuring she has enough information at each step?
- How might we help doctors provide their patients with more emotional support?
- How might we connect doctors with online pregnancy/fertility communities?
- How might we facilitate the flow of information about pregnancy/fertility in local communities?
- How might we encourage people to share personal information that would help others?
- How might we deter toxicity and shaming in online pregnancy/fertility communities?
- How might we ensure online support communities are moderated?

# POV #3

EQUIP LAURA WITH ACTIONABLE STRATEGIES CATERED TO PREGNANCY THAT SHE CAN INDEPENDENTLY PRACTICE TO SUPPORT HER MENTAL HEALTH AND EMOTIONAL WELLBEING

- How might we give Laura more of an outlet for her frustrations?
- How might we allow pregnant individuals to build their own methods for emotional support?
- **How might we help Laura repurpose her former coping strategies to better fit the new set of struggles she faces in pregnancy?**
- How might we make emotional wellbeing practices for pregnant people more accessible?
- How might we better connect Laura to an attentive support network for help?
- How might we leverage a support network to help pregnant people develop coping strategies?
- How might we allow people to share coping strategies that helped them during pregnancy?
- How might we develop effective coping strategies for pregnant individuals?
- How might we adapt emotional wellbeing practices to be able to be practiced independently?
- How might we alter Laura's environment so that she feels less stressed?