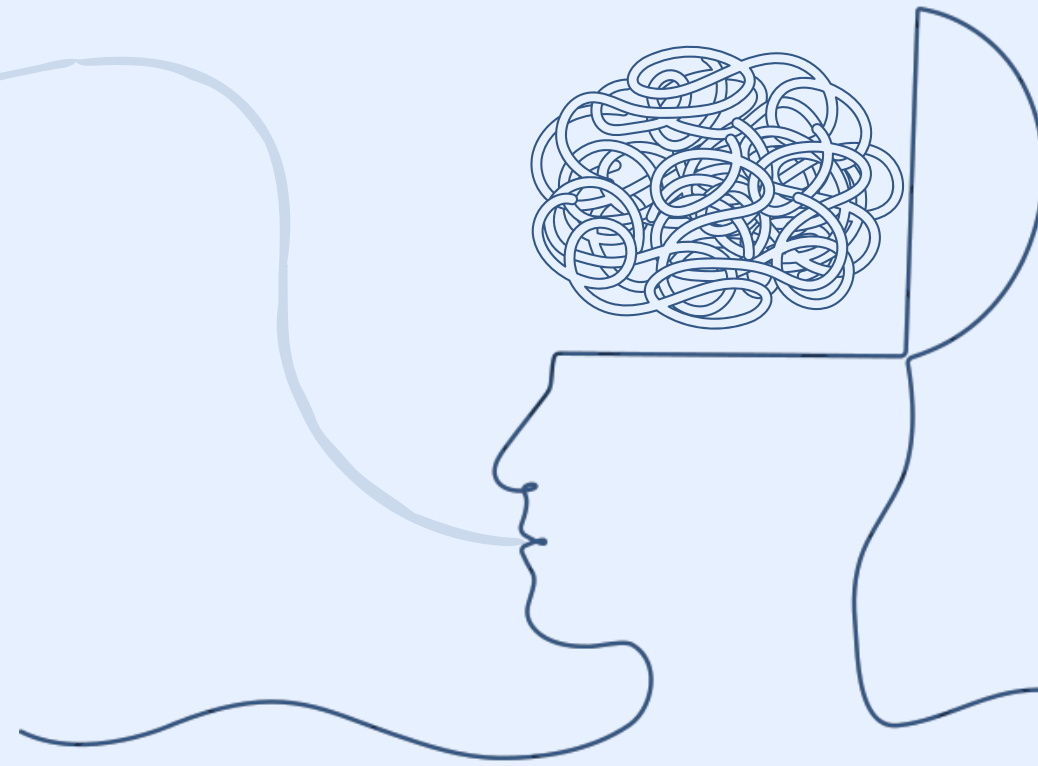


“My Brain is Like Cooked Spaghetti”:



Designing Intelligent Interface with GenAI for Everyday ADHD support in Adults

Moath Erqsous, Victoria Nikolaeva, Liam Roth, Xander Clawson, & Matthew Louis Mauriello

Presented by: Victoria Nikolaeva

September 2nd, 2026

Content

1. Background & Motivation



2. Research Questions



3. Methodology



4. Findings



5. Discussion



6. Conclusion



Why Study ADHD & Mental Health Tech?

ADHD affects millions of adults.

Approximately **15 million U.S. adults** live with ADHD

ADHD commonly co-occurs with anxiety and depression

Barkley's Adults with ADHD experience difficulties with:

- **Task initiation**
- **Planning and prioritization**
- **Working memory**
- **Time management**
- **Sustaining attention**
- **Translating intention into action**

Barkley, R. A., & Barkley, R. A. (1998). Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment(Vol. 2). New York: Guilford press.

Jerica Koh, Germaine YQ Tng, and Andree Hartanto. 2022. Potential and pitfalls of mobile mental health apps in traditional treatment: an umbrella review. Journal of Personalized Medicine 12, 9 (2022), 1376.

Traditional mental health care remains **difficult** to access & current technologies **fall short** due to:

Focus on Children

Adults with ADHD are rarely involved in designing technologies intended for them.

Poor Long-Term Engagement

Adults with ADHD struggle with maintaining long-term user engagement

Too Generic

Current technology lacks the ability to personalize the experience to ensure the user needs.

Features Behind Paywall

Many applications current lock meaningful features behind paywalls that are restrictive

How is Existing Technology Fall Short?

Current ADHD technology has important **limitations**:

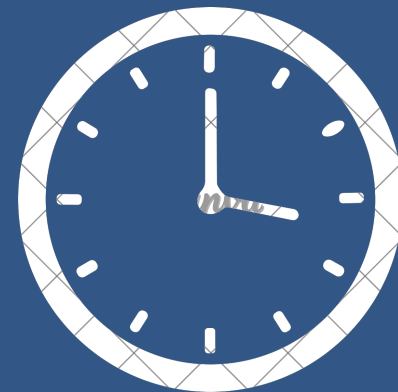
Focus on Children

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Features Behind Paywall

Many applications current lock meaningful features behind paywalls that are restrictive



Research Questions

RQ1

How do adults with ADHD experience & navigate mental health mobile apps in everyday life?

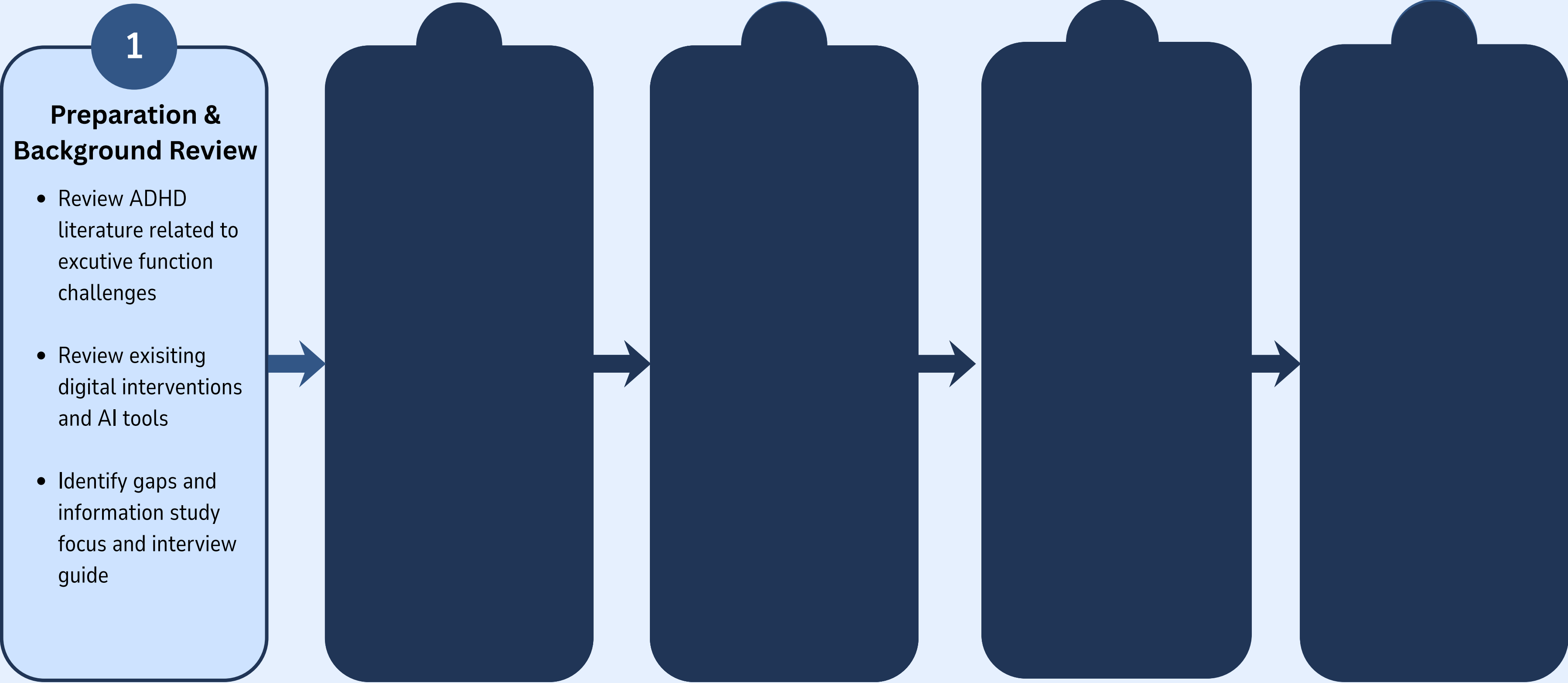
RQ2

What factors shape trust & sustained engagement in ADHD mobile app design?

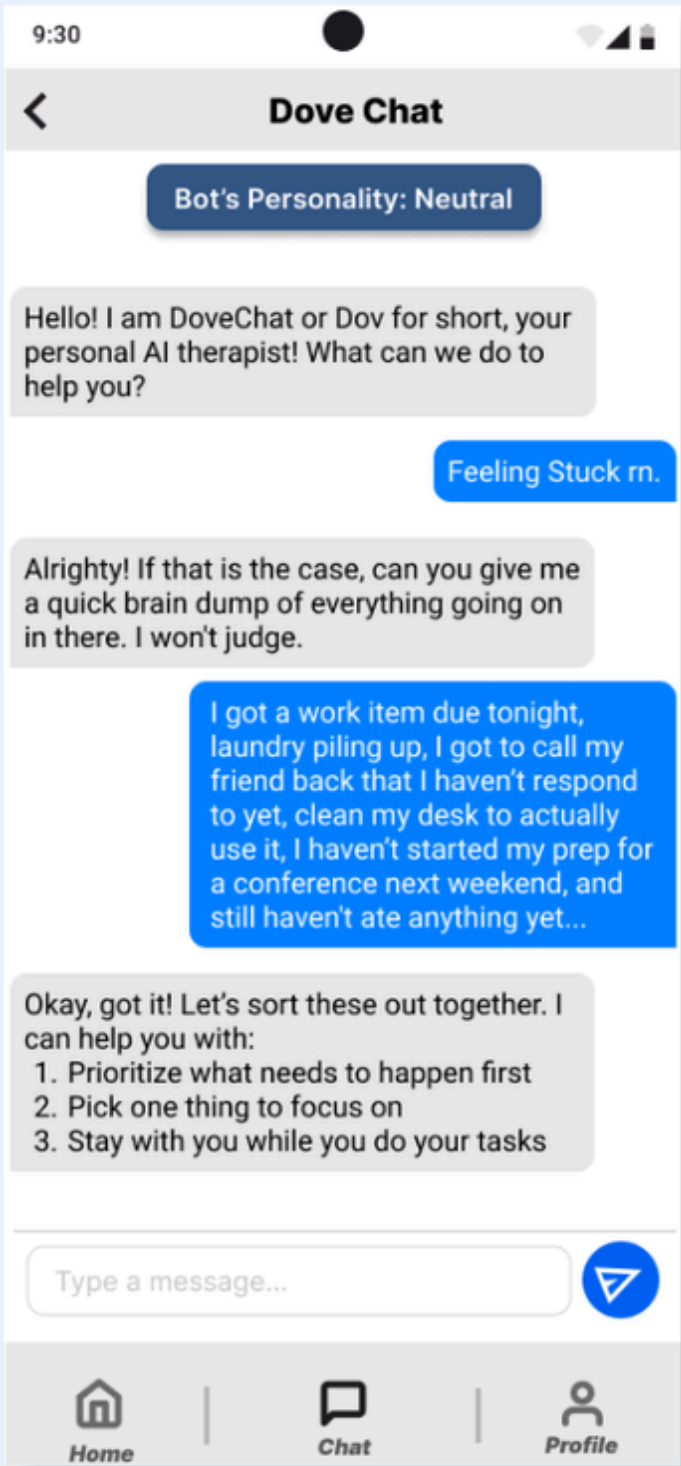
RQ3

How do adults with ADHD perceive GenAI mental health applications?

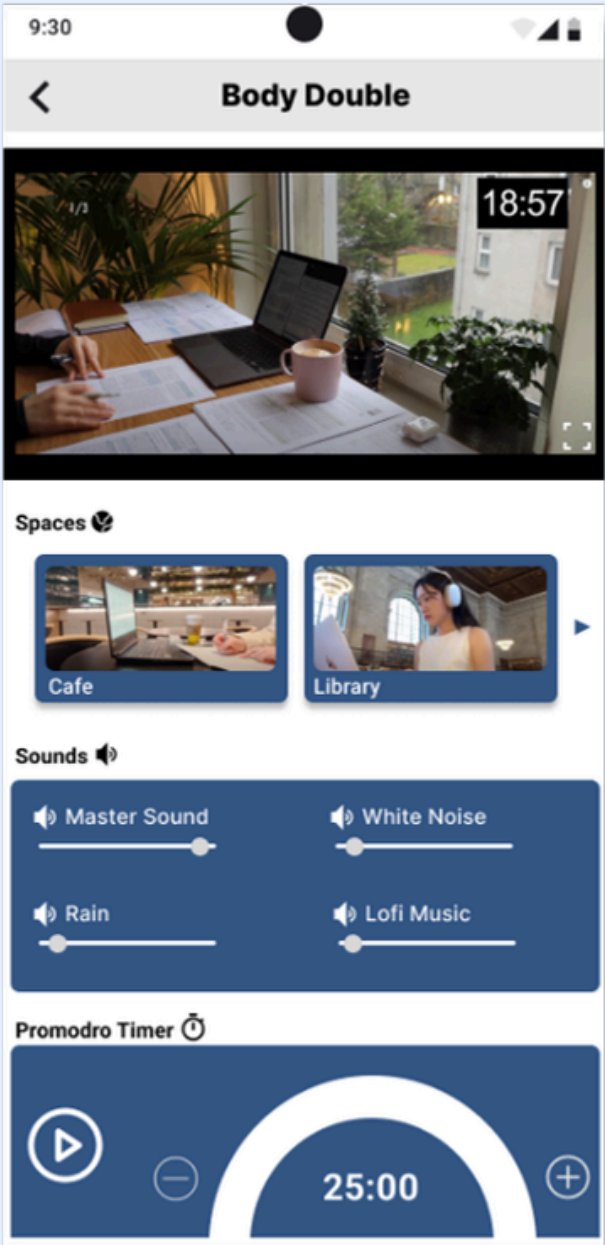
Study Design



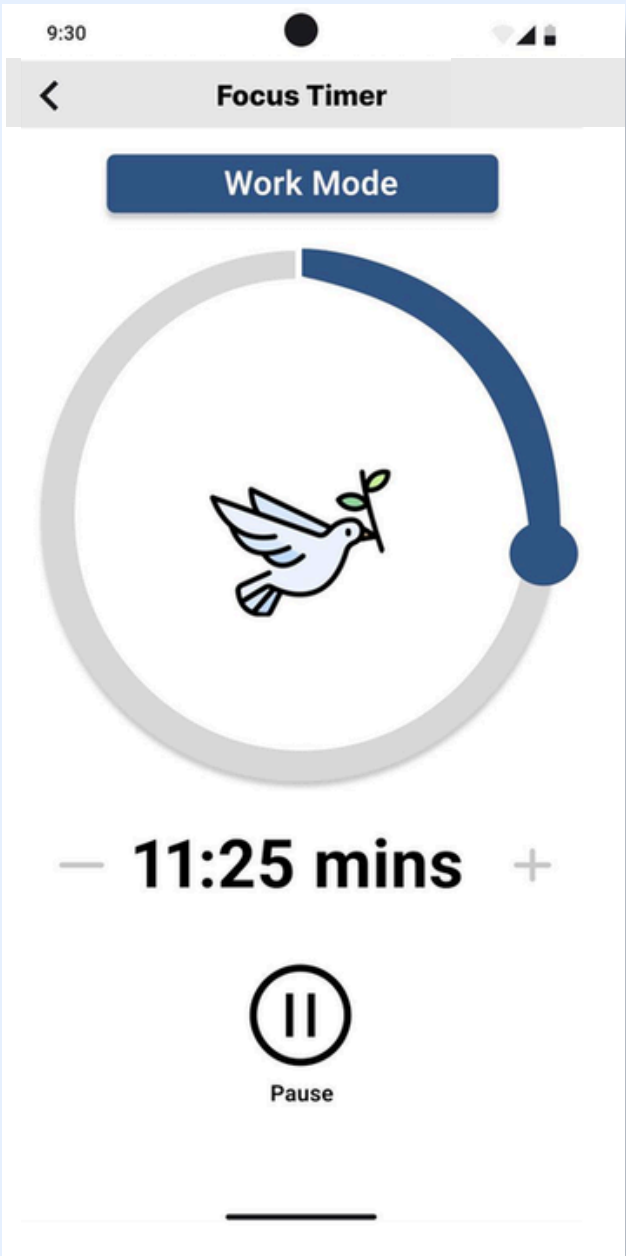
Mid-Fidelity Prototype



Prototype AI Chat



Option: Body Double

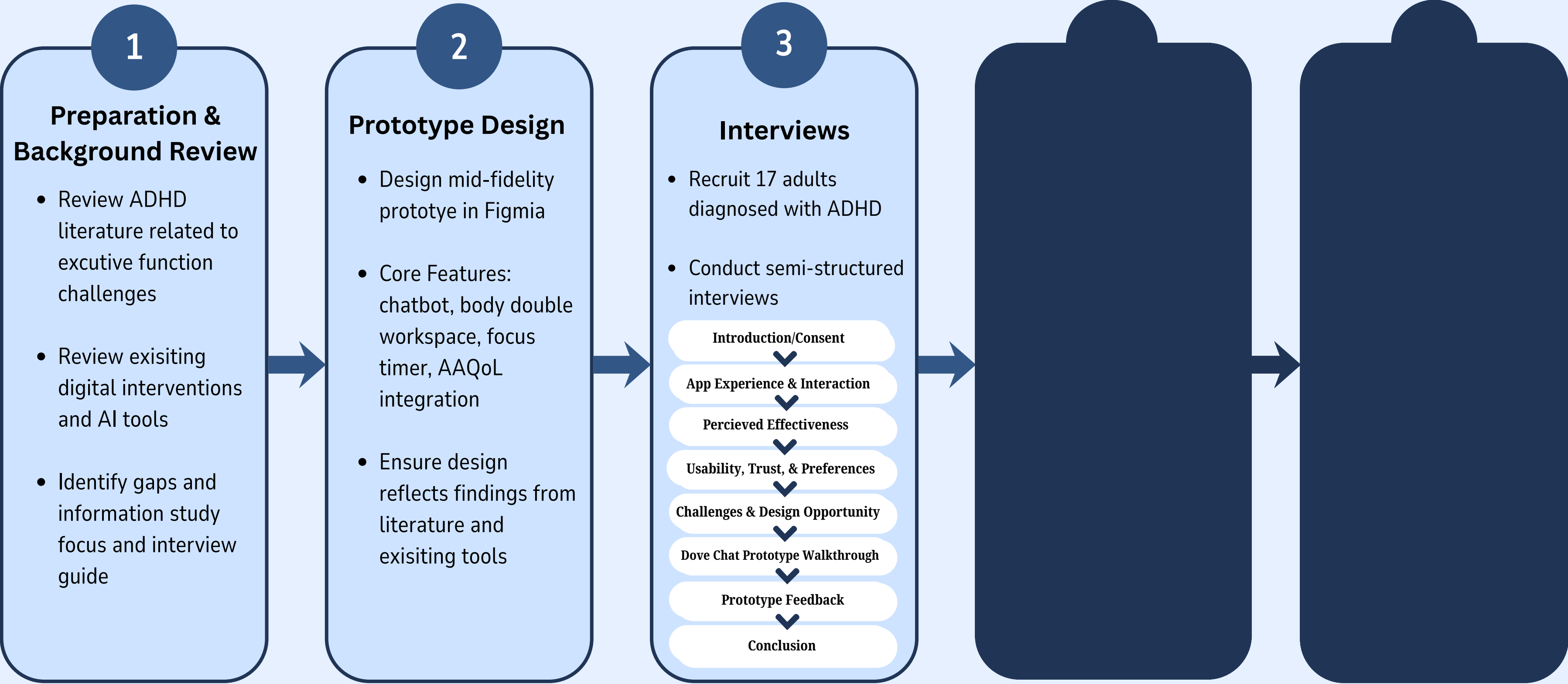


Option: Focus Timer

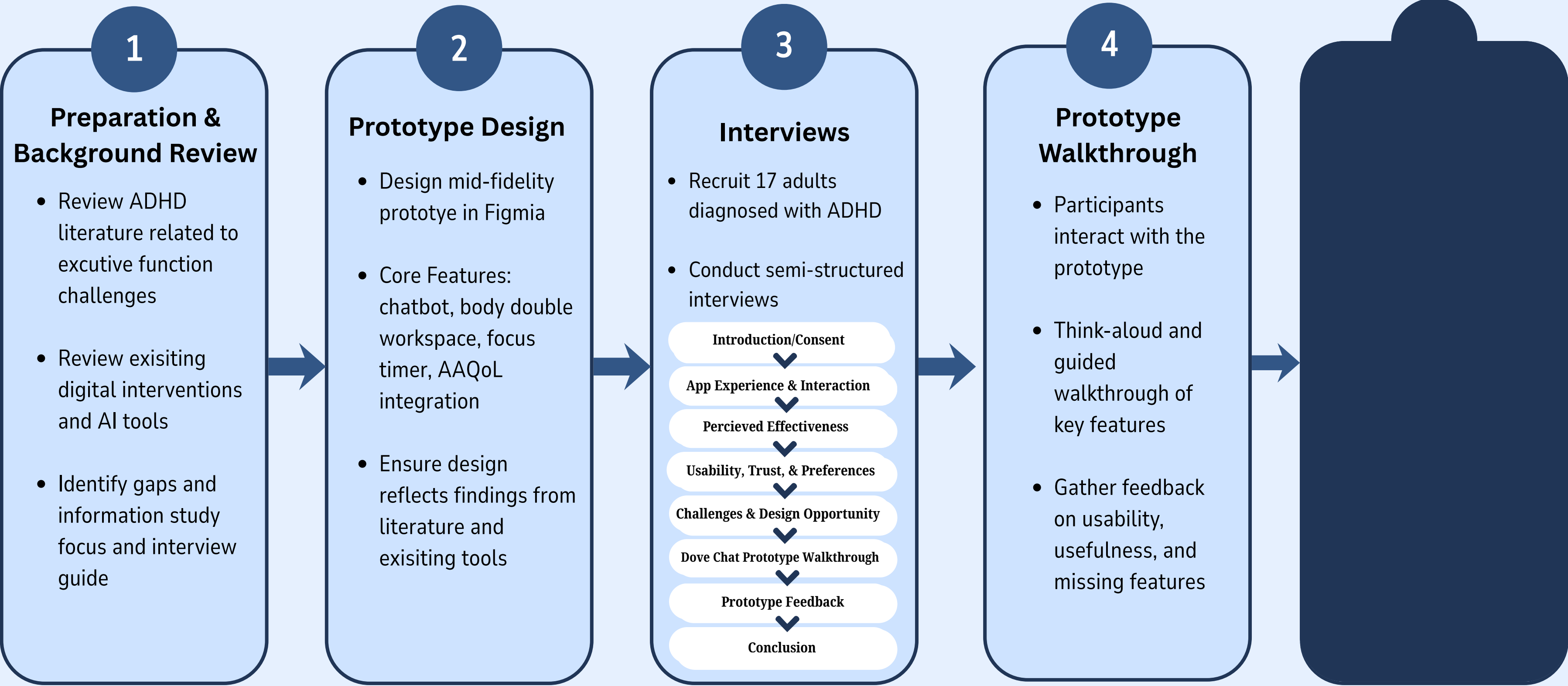


Assessment (ft. AAQoL)

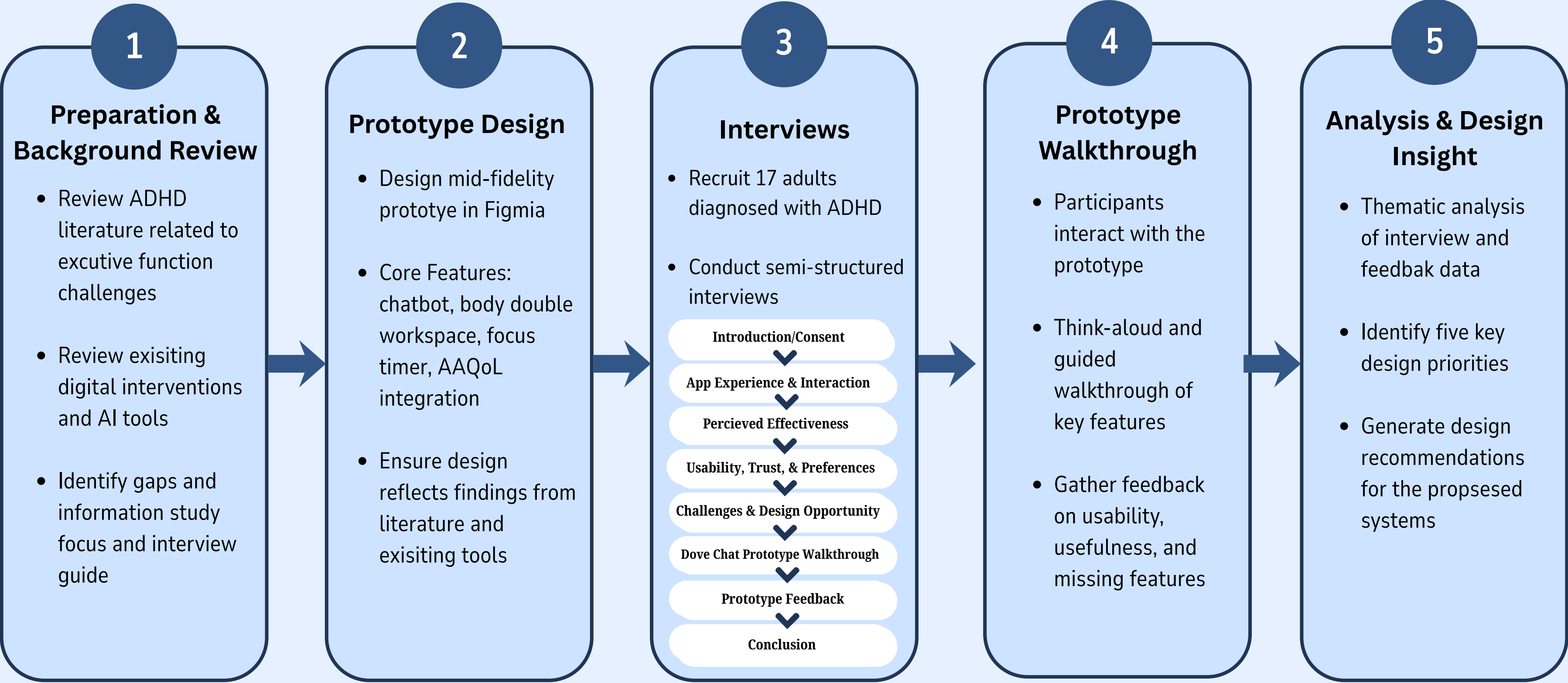
Study Design



Study Design



Study Design



Participants & User Semi Interview Design

Participants

- 17 adults with ADHD
- Age 18+
- Resided in the United States
- Prior experience using mental health apps

Recruitment

- ResearchMatch
- Social media

Interview duration

- 30–60 minutes
- Conducted remotely via Zoom



User Semi Interview Design

Intervention Foundation from ADHD Literature

Intervention	Targeted Symptoms	Supporting Literature
Chatbot Support	Emotional dysregulation, inattentiveness, task initiation	Chen et al. [1]
Body Double Workspace	Task initiation, sustained attention, isolation, emotional regulation	Eagle et al. [2]
Focus Timer	Procrastination, time mismanagement, inattentiveness	Nakashima et al. [3]
AAQoL Integration	Longitudinal quality-of-life monitoring	Bord et al. [4]

1. Yirong Chen et al. Soulchat: Improving llms’ empathy, listening, and comfort abilities through fine-tuning with multi-turn empathy conversations.

2. Tessa Eagle et al. “it was something i naturally found worked and heard about later”: An investigation of body doubling with neurodivergent participants.

3. Misuzu Nakashima et al. Efficacy of group cognitive behavior therapy targeting time management for adults with attention deficit/hyperactivity disorder in japan

4. Meryl Bord et al. Validation of the adult attention-deficit/hyperactivity disorder quality-of-life scale (aaqol): a disease-specific quality-of-life measure.

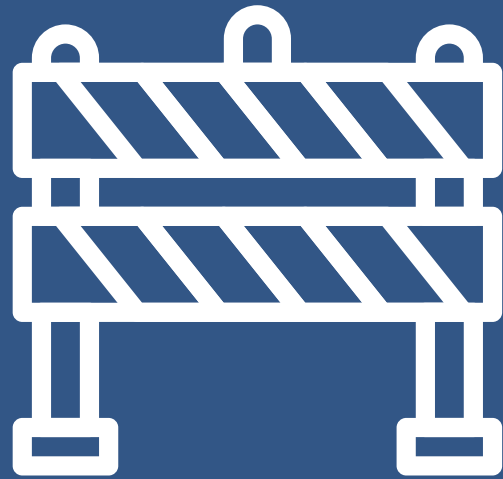
Result Overview

1



Motivations for
Using Mental
Health Apps

2



Barriers to
Sustained
Engagement

3



What Makes
Apps Feel
Helpful

4



Participants-
Identified
Design
Opportunities

5



Use of
Generative AI

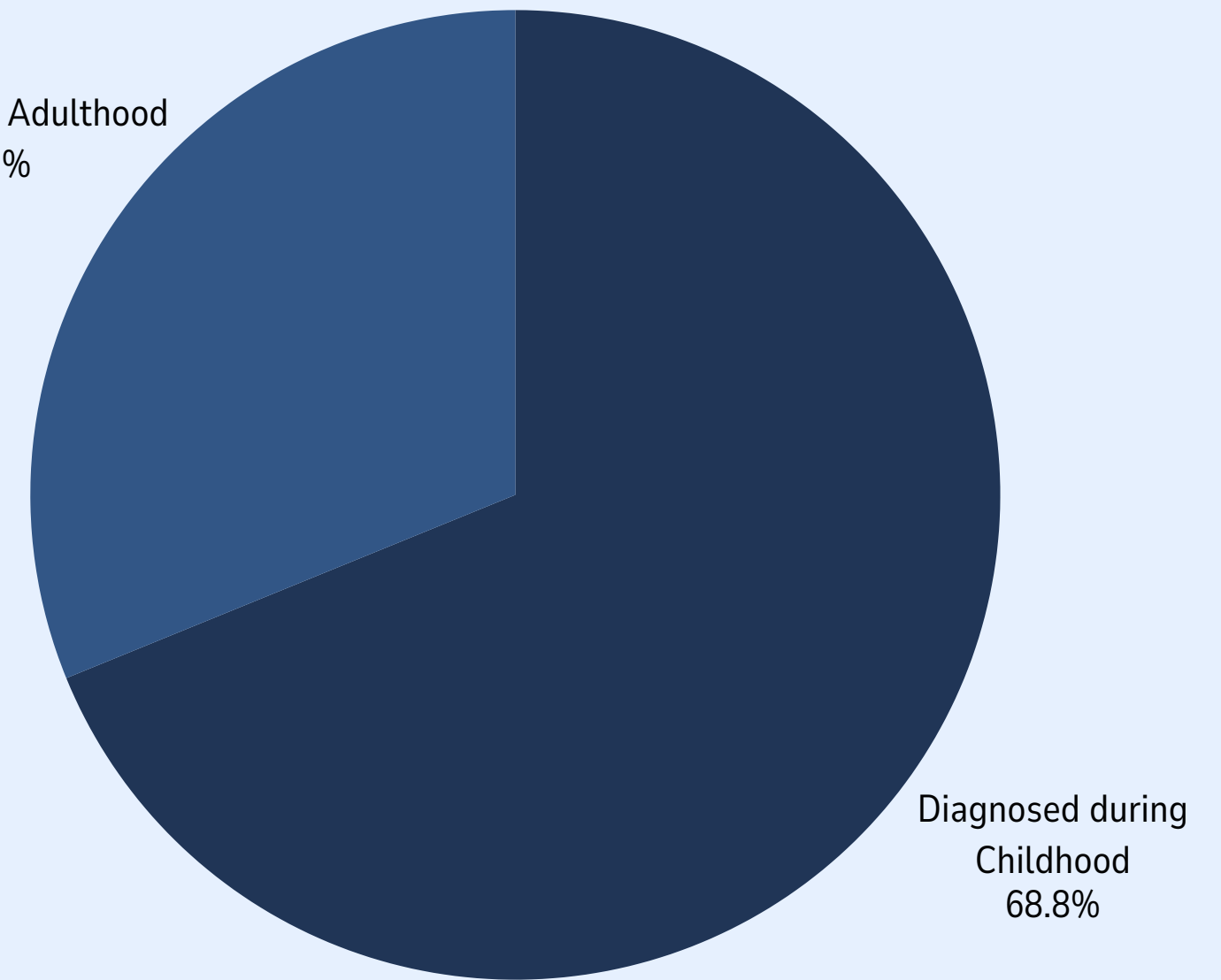
Motivations for Using Mental Health Apps

Why do Adults with ADHD seek Mental Health Apps?

Common Motivations:

- Managing ADHD symptoms
- Improving Organization
- Supporting Emotional Well-Being
- Building Healthier Routines

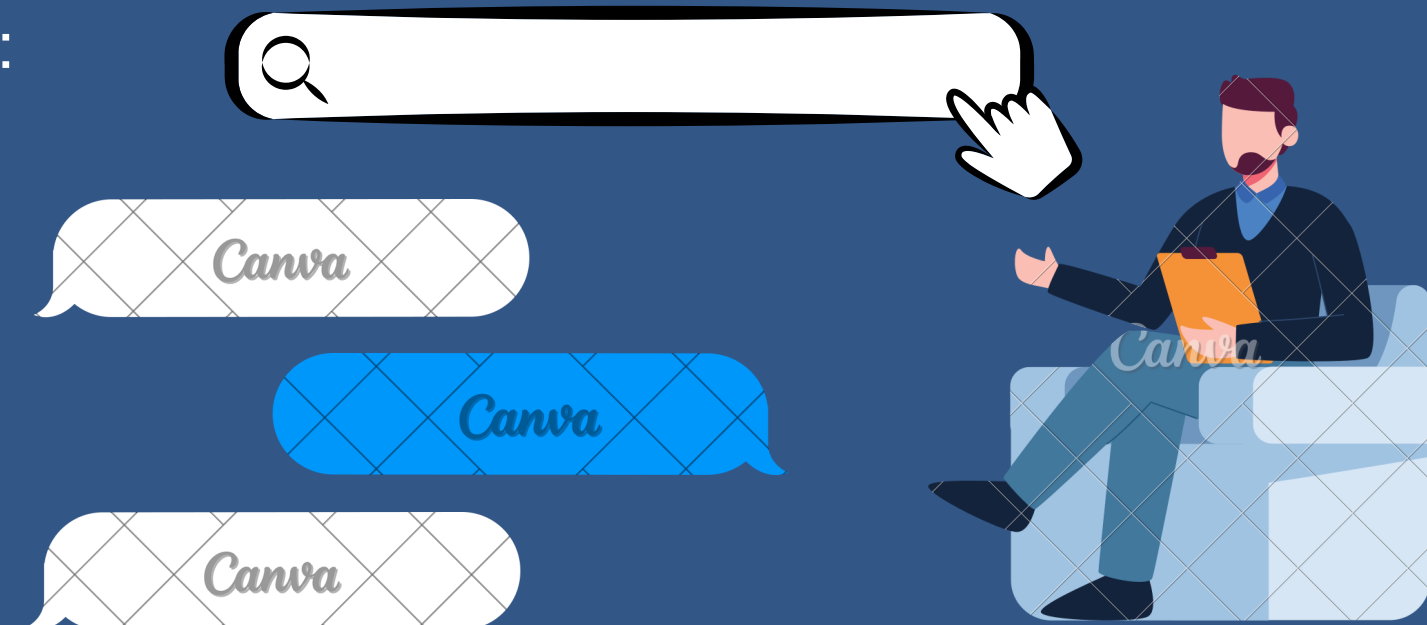
Diagnosed in Adulthood
31.2%



Diagnosis Background

Participants found apps through:

- Google Search
- Social Media
- Therapists
- Friends & Family
- Reddit



Barriers to Sustained Engagement

Why Do Users Stop Using Mental Health Apps?

Financial barriers (53%)

Subscription costs and locked features discouraged continued use.

Generic experiences (29%)

Apps often failed to address ADHD-specific needs.

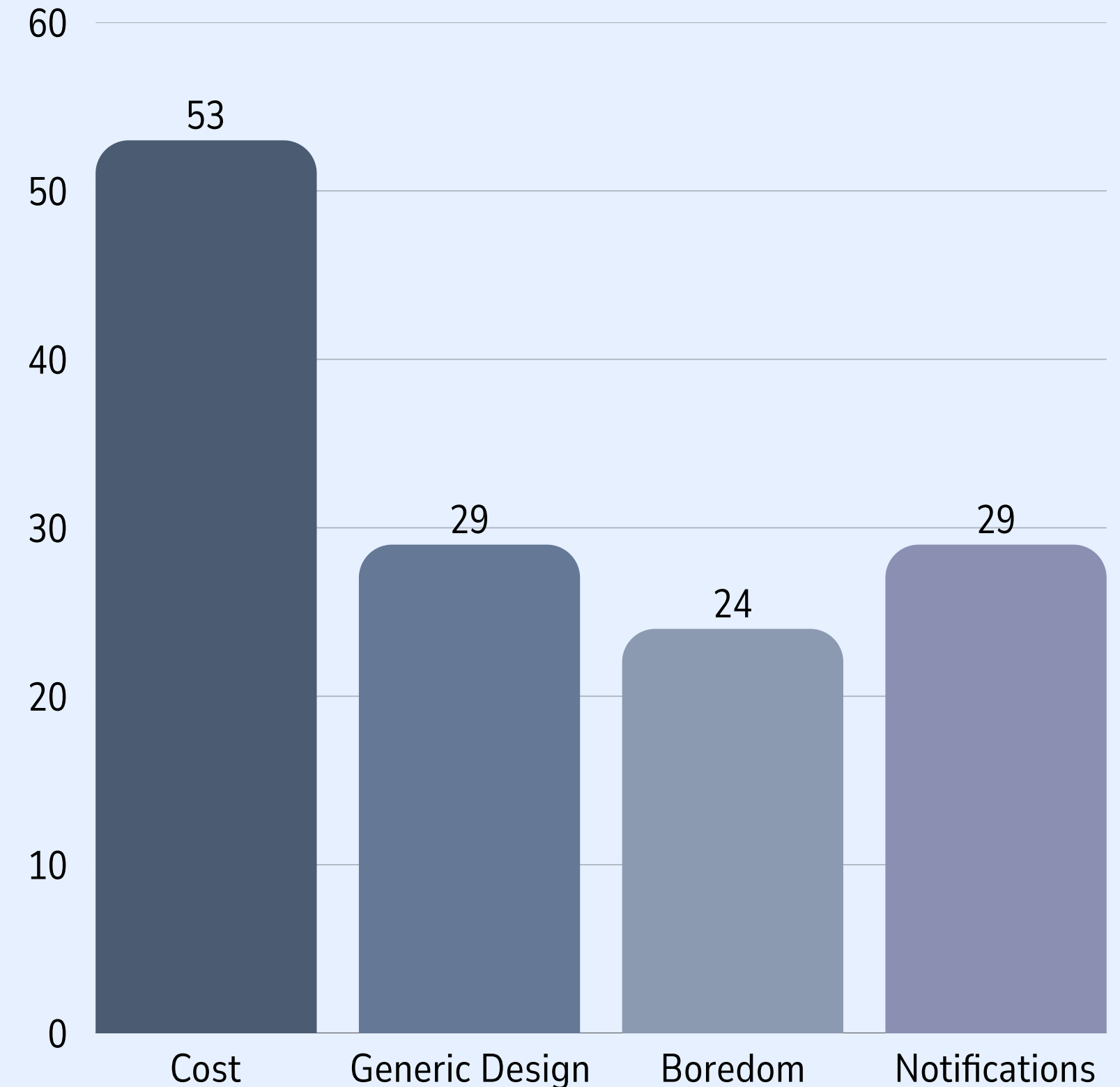
Notification fatigue (29%)

Frequent reminders became frustrating.

"Don't tell me what to do, App." (P13)

Loss of interest (24%)

Participants described repetitive experiences that became boring over time.



Participant-Identified Design Opportunities

What did participants want future apps to include?



Use of Generative AI

88% of participants reported using Generative AI as Everyday ADHD Support

Most Common **Uses**:

- Structure their schedules,
- Create actionable to-do lists
- Break deadlines into smaller steps
- Externalize planning demands

“ChatGPT really helps me organize my thoughts... My brain is like cooked spaghetti, and ChatGPT helps me put things back in order.” (P6)

Most Common **Concerns**:

- Privacy
- Trust
- Emotional dependence
- Distraction

“I’ve seen a couple news stories about ChatGPT feeding into people’s delusions... I don’t like the idea of AI.” (P13)

Prototype Evaluation

Participants left feedback on the prototype with variety of opinions:

AI Chatbot

Participants appreciated

- Task organization
- Prioritization
- Accountability
- Simple interface

Requested

- Greater personalization
- Human oversight
- Increased transparency

Body Double

Positive

- Accountability
- Ambient environments
- White noise

Concerns

- Potential distraction
- Simulated environments

Focus Timer

Helpful for

- Structuring work
- Managing breaks

Participants also requested reminder functionality.

AAQoI Assessment

Mixed opinions

Some valued reflection.

Others questioned

- Necessity
- Timing
- Integration

Key Findings Summary

1. Adults with ADHD **frequently rely** on technology for **everyday support**.
2. **Existing mental health apps** often **fail** to address ADHD-specific needs.
3. **Built-in phone tools** frequently **outperform dedicated ADHD apps**.
4. Generative **AI is already being used** as an informal productivity and organizational tool
5. **Future technologies** should **prioritize**:
 - a. Personalization
 - b. Simplicity
 - c. Trust
 - d. Integration with everyday workflows

Discussion Key Insights

Adults with ADHD seek technologies designed for their needs.

Four key insights emerged:



1

Social media recommendations often misrepresent app usefulness.

2

Adults with ADHD need tailored, adaptive technologies.

3

GenAI currently fills gaps left by existing mental health apps.

4

Adults already create their own digital support systems.

Falsification of Social Media Recommendations

Participants frequently discovered apps through:

- Social media
- Search engines

However!

Many reported these recommendations failed to meet ADHD-specific needs.



Falsification of Recommendations

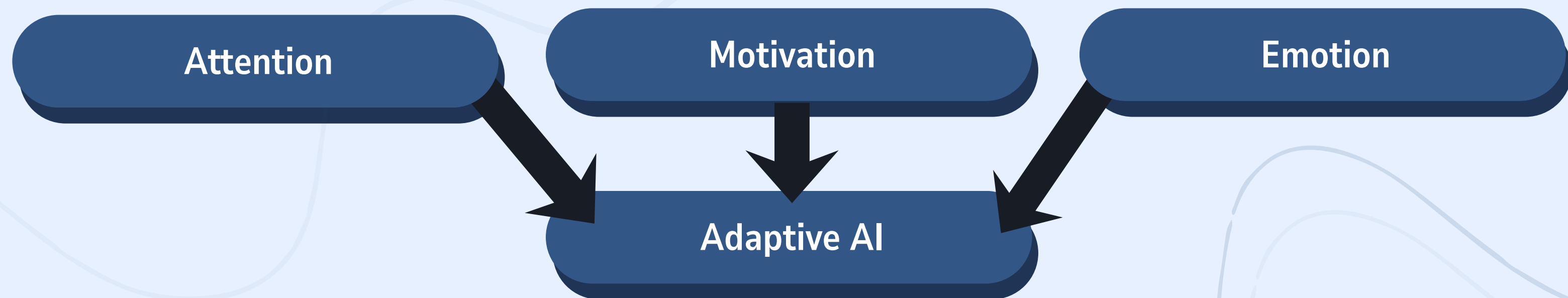
A mismatch between how apps are promoted and how useful they are for adults with ADHD

Adults Need ADHD-Specific Personalization

Participants consistently requested:

- Adaptive reminders
- Personalized organization
- Calendar integration
- Flexible timers
- Minimal interfaces

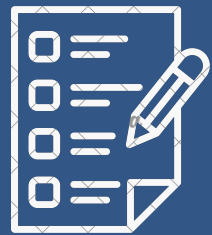
Personalization should **adapt** rather than simply user preferences.



GenAI as a “Stopgap”

Participants described ChatGPT as:

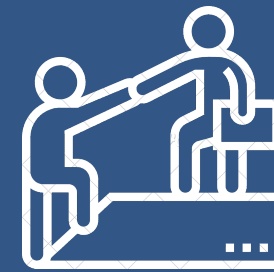
Organizational
Support



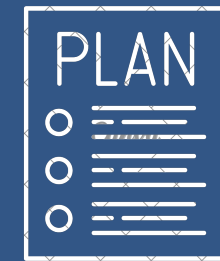
Brain Dump



Accountability
Partner



Planning
Assistant



GenAI currently **fills gaps** where existing ADHD technologies fall short
However, the **current limitations** of GenAI **causes skepticism** and reveals both potential and the current shortcomings of it.

Design Recommendations

Five Major Design Priorities:

1

Agentic AI
Support



2

Simplicity &
Customization



3

Affordable
Pricing



4

Transparent Safety
& Crisis Routing



5

Strong Privacy
Control



Limitations & Future Work

Limitations

Several limitations:

- Small sample size (17 participants)
- Self-selection through ResearchMatch and social media
- Mid-fidelity prototype
- Moderated walkthrough rather than real-world deployment
- Rapidly evolving GenAI landscape

Future Works

Future research include:

- Larger and more diverse participant groups
- Longitudinal evaluations
- Interactive deployments
- Clinical and community recruitment
- Continued evaluation as AI evolves

Conclusion

Acknowledgement

SENSIFY LAB

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DELAWARE



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August 31st – September 3rd, 2026



Moath Erqsous



Victoria Nikolaeva



Alexander Clawson



Meaghan Roth



Matthew Louis Mauriello

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