

# Cognitive Blob Therapy

A mobile application to  
guide users in applying  
cognitive behavioural  
therapy techniques.



# Intro and motivation

- CBT is a popular type of therapy for treating symptoms of mental illness eg. depression and anxiety
- Patients fill in worksheets to practice techniques, sometimes without a therapist due to barriers to accessing care
- Personal experience with therapy highlighted accessibility and motivational problems with paper worksheets – mobile app proposed as a solution
- Review of existing CBT apps found lack of motivational features and underutilisation of mobile features



# Design process

- Primary stakeholders/ app users are between 18 –25 and experiencing mild symptoms
- User personas constructed to help identify requirements
- 3 exercises based on existing resources (right) chosen for potential of adapting to phone and personal preference

THOUGHT		
1. Situation Who? What? When? Where?	2. Moods a. What did you feel? b. Rate each mood (0–100%).	3. Automatic Thoughts (Images) a. What was going through your mind just before you started to feel this way? Any other thoughts? Images? b. Circle or mark the hot thought.

FIGURE 6.1. Sample Thought Record. Copyright 1983 by Christine A. Padesky.



# Implementation

- Utilised agile methodology to plan 2 week sprints with tasks based on requirements
- Discontinued features (eg. Journal, mood selection) due to time constraints
- Redesigned home page and motivational features
- Ensured code correctness by using robust functional testing

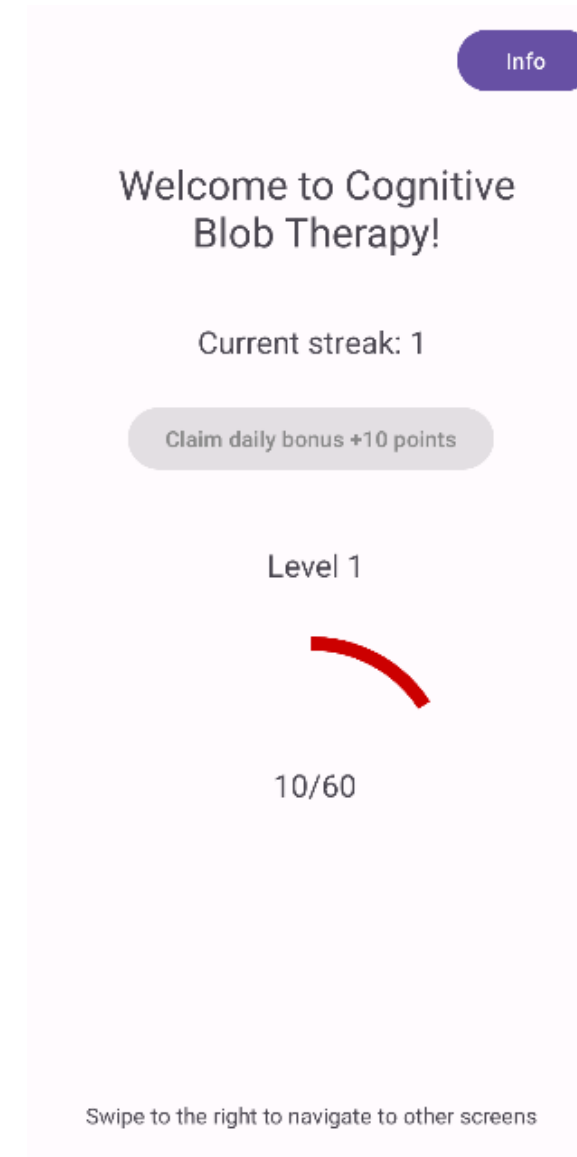
ID	MoSCoW	Description	Size
1.3	MUST	Implement 'Thought Record' exercise (carried over)	3
2.1	SHOULD	Store and view completed exercises	4
APP1	COULD	Sidebar menu navigation	2
5.1	MUST	Points for completing exercises	2

1.3	1.3	1.3	1.3						
2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
APP1	APP1	APP1	APP1	APP1	APP1	APP1	APP1		
5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
12/2	13/2	14/2	15/2	16/2	19/2	20/2	21/2	22/2	23/2



# Demo time

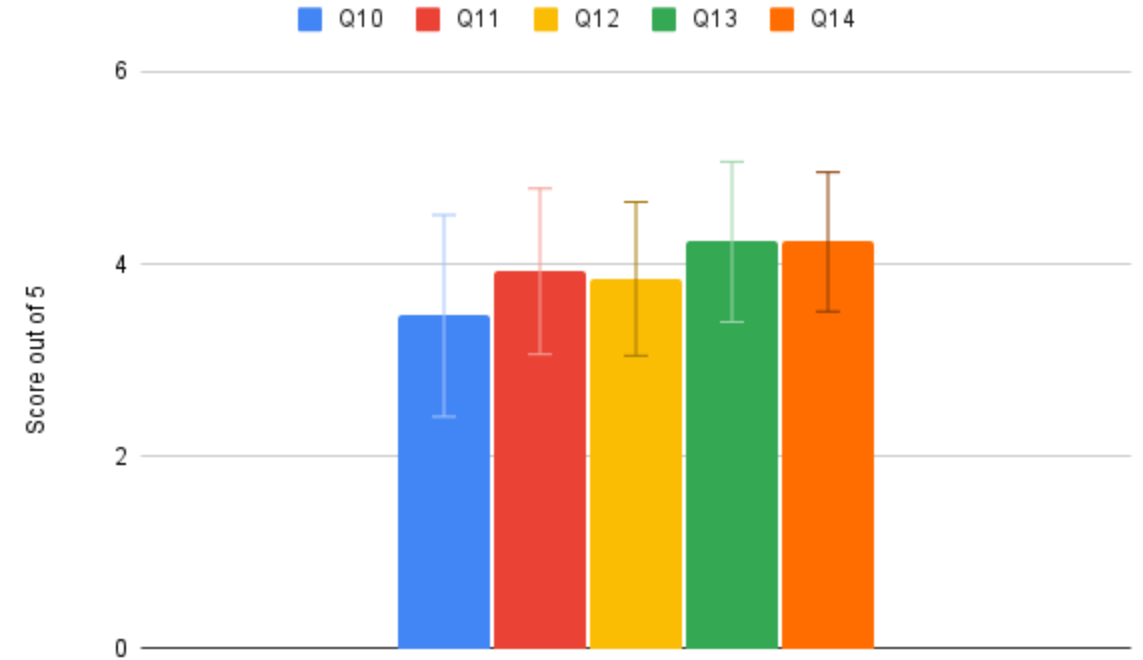
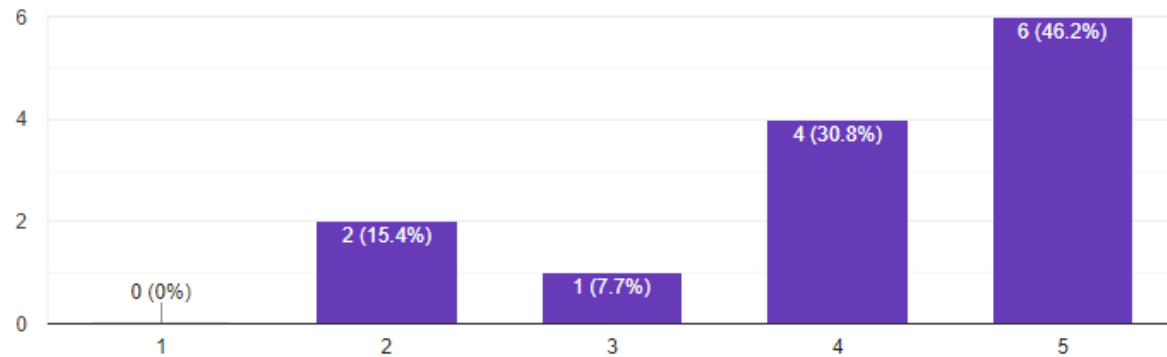
Scenario given to study participants: "Pretend you are extremely anxious about an upcoming exam and are finding it hard to focus on revision due to the anxiety"



# Evaluation results

On a scale of 1 to 5, how likely would you be to use the mobile app over a pen-and-paper worksheet?

13 responses



> 75% of participants said they were more likely to use the app over pen-and-paper worksheets (left). Positive responses to other features and good perceptions of usability (right)



# Conclusion

- Developed app for CBT exercise adaptations which most testers rated highly. Motivational features well received.
- Longer study and study involving experts would be beneficial
- Exercises can be improved by adding tutorial and more built-in suggestions to help complete exercises
- Possible future expansion: expand into platform to connect therapists and patients, allowing therapists to easily view and comment on completed exercises

