Developing a mobile app intervention based on Acceptance and Commitment Therapy for adults with a visible difference affected by appearance distress

Fabio Zucchelli, Olivia Donnelly, Praminda Caleb-Solly, Emma Rush, Heidi Williamson, & the VTCT Foundation Research Team at the Centre for Appearance Research (CAR), University of the West of England (UWE), Bristol.

Background

What is visible difference? \

- > Any physical appearance considered atypical.
- > E.g. cleft lip/palate, scarring, skin conditions.
- > Many describe receiving unwelcome attention.¹
- Some experience social anxiety, poor body image, and/or low quality of life.²

Space saver: currently seeking out photos of people with visible differences



- > ACT targets quality of life by increasing mindfulness, acceptance of experience, and valued behaviour.³
- > ACT offers a pragmatic approach for those with minimal control over appearance or others' initial reactions.4

This project

Why an ACT-based app?

- Some with visible differences favour remote psychological support.⁵
- > Mobile apps may partly compensate for lack of therapist support, via immediately accessible guidance (e.g. during social exposure) and tailored prompts.⁶
- > ACT-based apps show promise in changing health behaviours.⁷

Project objectives

- (1) Design the overview and content of an app, by utilising a wide range of expertise.
- (2) Gain feedback on an app demo from stakeholders, and iteratively re-design the app.
- (3) Show proof of concept, then apply for a grant to build app and conduct a research trial.

The app team

Researchers



Fabio Zucchelli and Dr Heidi Williamson, CAR, **UWE Bristol.**

Manage project; Co-produce app overview and content.

Clinical expert

Photo on its way

- > Dr Olivia Donnelly, **Consultant Clinical** Psychologist, North Bristol NHS Trust.
- Co-produce app overview and advise on content.

User representative



- > Emma Rush, Vitiligo Support UK Founder.
 - > Advise on project material and delivery.

Software developer



dataphiles

- > Advise on app design.
- Build clickable app demo.

App usability expert



- Dr Praminda Caleb-Solly, **UWE Bristol.**
- > Advise on usability element of app design.

The development process

Key app features

Four 'training sessions' App overview completed weekly

Introduction: App information; User chooses avatar & gives data used to tailor some content.

Building Awareness: 'Passengers on a Bus'* introduced; User records their 'passengers' and resulting behaviour.

Charting a course: User clarifies their values; User makes simple action plan; Mindfulness training.

Getting social: Building on social skills; Further mindfulness training.

Training in action: User makes an action plan;

Optional resources (e.g. on intimacy difficulties).

*Passengers on a bus refer to all internal experiences

(thoughts, feelings etc.)



Appearance-related charity representatives

February 2018: Public involvement workshop.

- Focus group on topic of app.
- Feedback on clickable demo (version 1).

Clinical experts

July-September 2018: Individual sessions with psychologists with relevant expertise (target n = 5).

- > Feedback on app (a) overview and (b) demo.
- Interview on the suitability of app, and any points of consideration.

24-hr quick access to key resources (e.g. action plans, guided audio recordings).

User-set reminder notifications.

Interactive features (e.g. selecting values).

Design app

Iterative process

Stakeholder involvement

> Adults with visible differences

June-August 2018 (target n = 7) Following workshop:

Usability testing of demo

Workshop including:

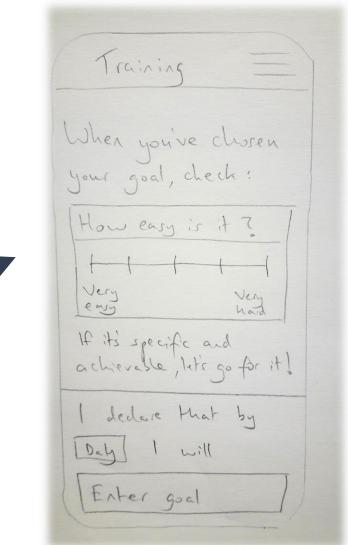
- (version 2).
- Focus group on app preferences and ideas.
- Remote usability testing of updated demo (version 3).

Build app demo

Individual interviews gaining feedback on the app.

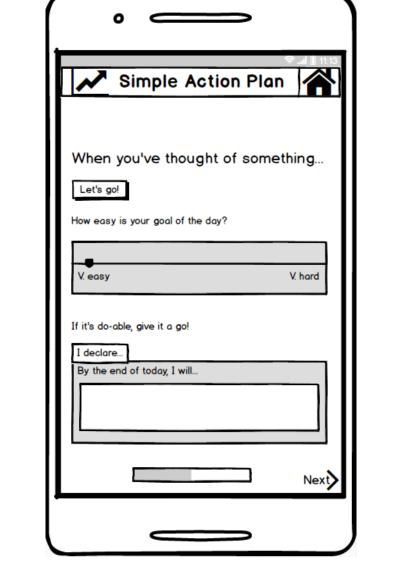
App content

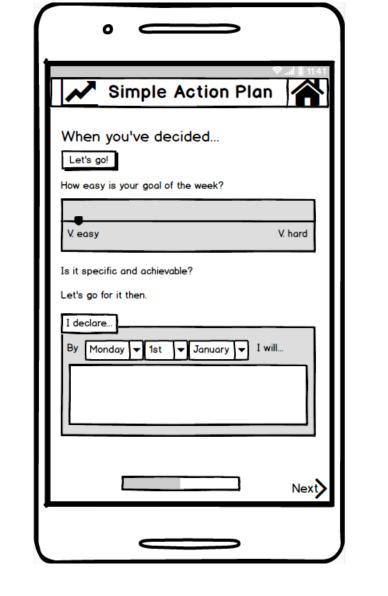
(1) Sketch out screens



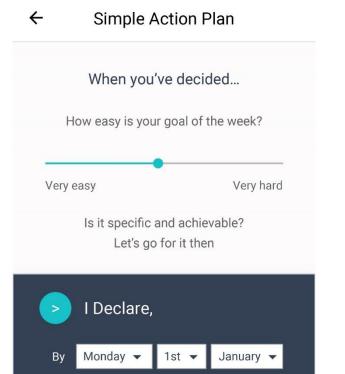
Training We'll seed you prompts of your week's goal You choose when you Send Daily lonce / twice daily at 21:00

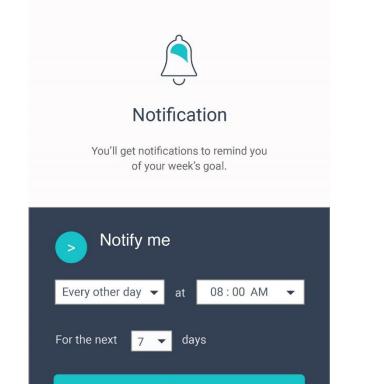
2 Create wireframe (Balsamiq©)



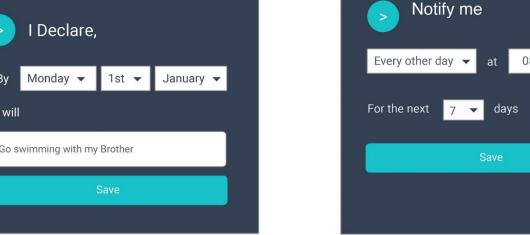


(3) Dataphiles produce clickable demo (Adobe XD©) ▼ ▲ 12:30





Simple Action Plan





UWE Dristol University of the West of England



Appearance

Research

References

1. Roberts, R. M., Neate, G. M., & Gierasch, A. (2017). Implicit attitudes towards people with visible difference: findings from an Implicit Association Test. Psychology, Health & Medicine, 22(3), 352-358. 2. Norman, A., & Moss, T. P. (2015). Psychosocial interventions for adults with visible differences: a systematic review. *PeerJ*, 3, e870.

3. Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. Behavior Research and Therapy, 44(1), 1-25.

4. Zucchelli, F., Donnelly, O., Williamson, H., & Hooper, N. (In press). Acceptance and Commitment Therapy for people experiencing appearance-related distress associated with a visible difference: A rationale and review of relevant literature. Journal of Cognitive Psychotherapy 5. Bessell, A., Clarke, A., Harcourt, D., Moss, T. P., & Rumsey, N. (2010). Incorporating user perspectives in the design of an online intervention tool for people with visible differences: Face IT. Behavioural and Cognitive psychotherapy, *38*(5), 577-596. 6. Ivanova, E., Lindner, P., Ly, K. H., Dahlin, M., Vernmark, K., Andersson, G., & Carlbring, P. (2016). Guided and unguided Acceptance and Commitment Therapy for social anxiety disorder and/or panic disorder provided via the Internet and a smartphone application: a randomized controlled trial. Journal of anxiety disorders, 44, 27-35.

7. Levin, M. E., Pierce, B., & Schoendorff, B. (2017). The acceptance and commitment therapy matrix mobile app: A pilot randomized trial on health behaviors. Journal of Contextual Behavioral Science, 6(3), 268-275.