

The co-production of a digital intervention to support young people
with depression waiting on the psychotherapy waiting list

Tamsin Ford, Professor of Child and Adolescent Psychiatry



Principal Investigator



Inventors of BPI



NHS Clinicians



Mental Health
Charity



Prof Tamsin Ford

Prof Ian Goodyer

Dr Raphael Kelvin

Dr Nima Leffler Dr Julia Gledhill

Researchers



App
Developer



Statistician



Norwich CTU



Dr Anne-Marie
Burn

Dr Rasanat
Fatima Nawaz

Dominique
Grohmann

Lauren
Hitchcock

Dr Simon White



Background and rationale

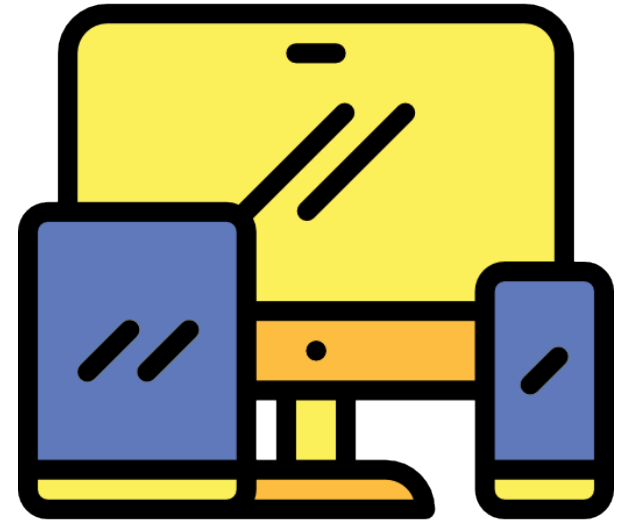
- Increasing waiting lists for Children and Young People's Mental Health Services (CYPMHS) are a major barrier for young people trying to access mental health care.
- Referrals increased by 47% in 2021-2022 (Children's Commissioner, 2023).
- Evidence to support the use of some digital interventions for adolescent depression e.g. Hollis et al., (2017)



Digital Brief Psychosocial Intervention (BPI)

WaitLess – Aims to create an online version of BPI.

- Project running from March 2024 to March 2027
- Bite-sized self-led sessions lasting between 5-10 minutes.
- Can be used on phone, tablet, or computer.
- Visually engaging – uses audio and video.



The Emergence Of BPI

Traditional BPI:

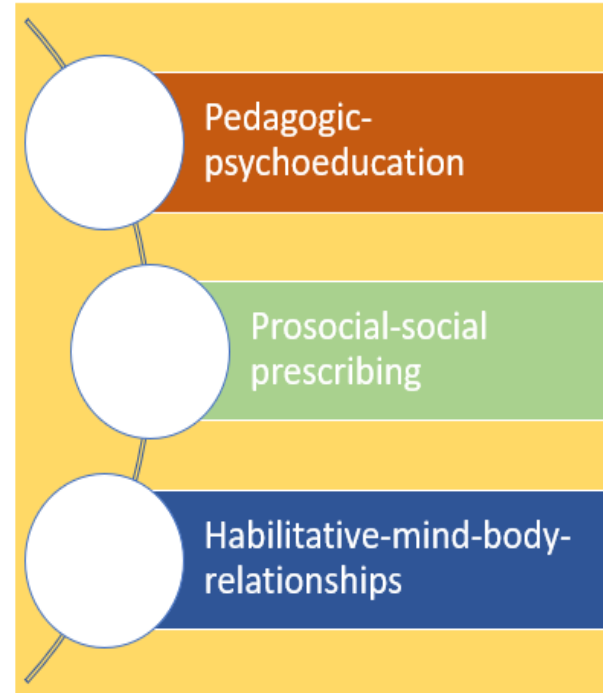
- A NICE approved talking therapy
- Emerged from pragmatic experiences of treating depressed and anxious adolescents
- Involves active learning and intervention principles



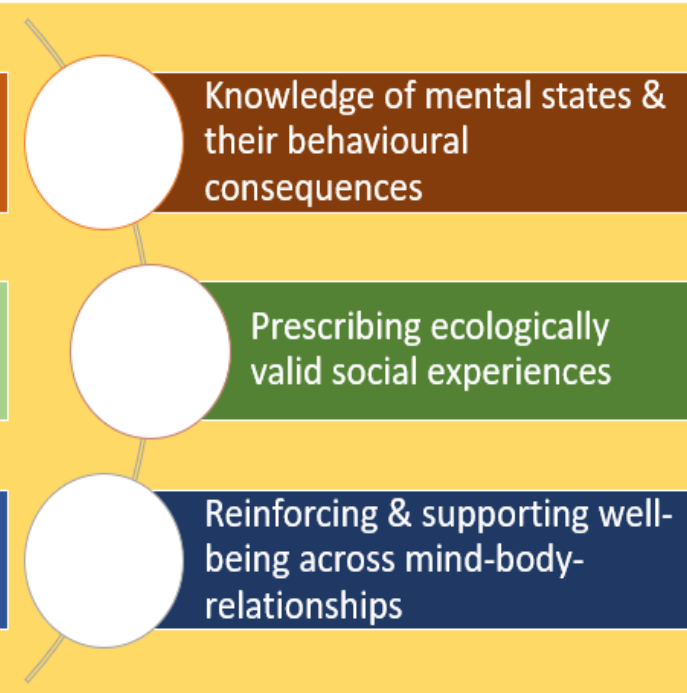
Translating BPI into a self-service digital format:

- Four visual strategies through online video
- Animation, storytelling and information giving
- Films of two BPI-trained mental health professionals discussing the value of using BPI through the online method

BPI Driving Themes



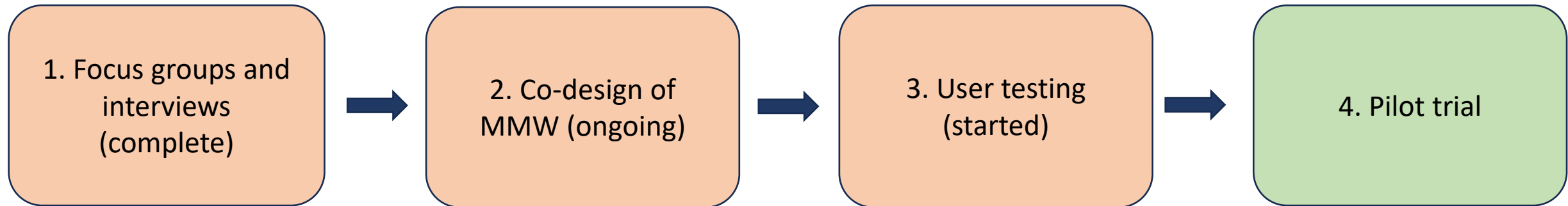
BPI Method



The model emerges from psychosocial methods used in CYPMHS

The Wait Less Study (March 2024 – March 2027)

We are co-designing a digital version of Brief Psychosocial Intervention, a digital program within an electronic BPI (eBPI) portfolio.



WAIT LESS Study Strategy for Ensuring Translational Success

Methods

Outcomes

Readiness for Medical Device
Conformity

WaitLess Data Gathering
Framework

Recommendation in
NICE Guidance

Conform to NICE
ESF
21 Standards

RCT MHRA Registration
ISO 14155 GCP Clinical
Investigation Plan (CIP)

NHS Commissioning
DTAC Compliant

Conform to NHS
DTAC Standards

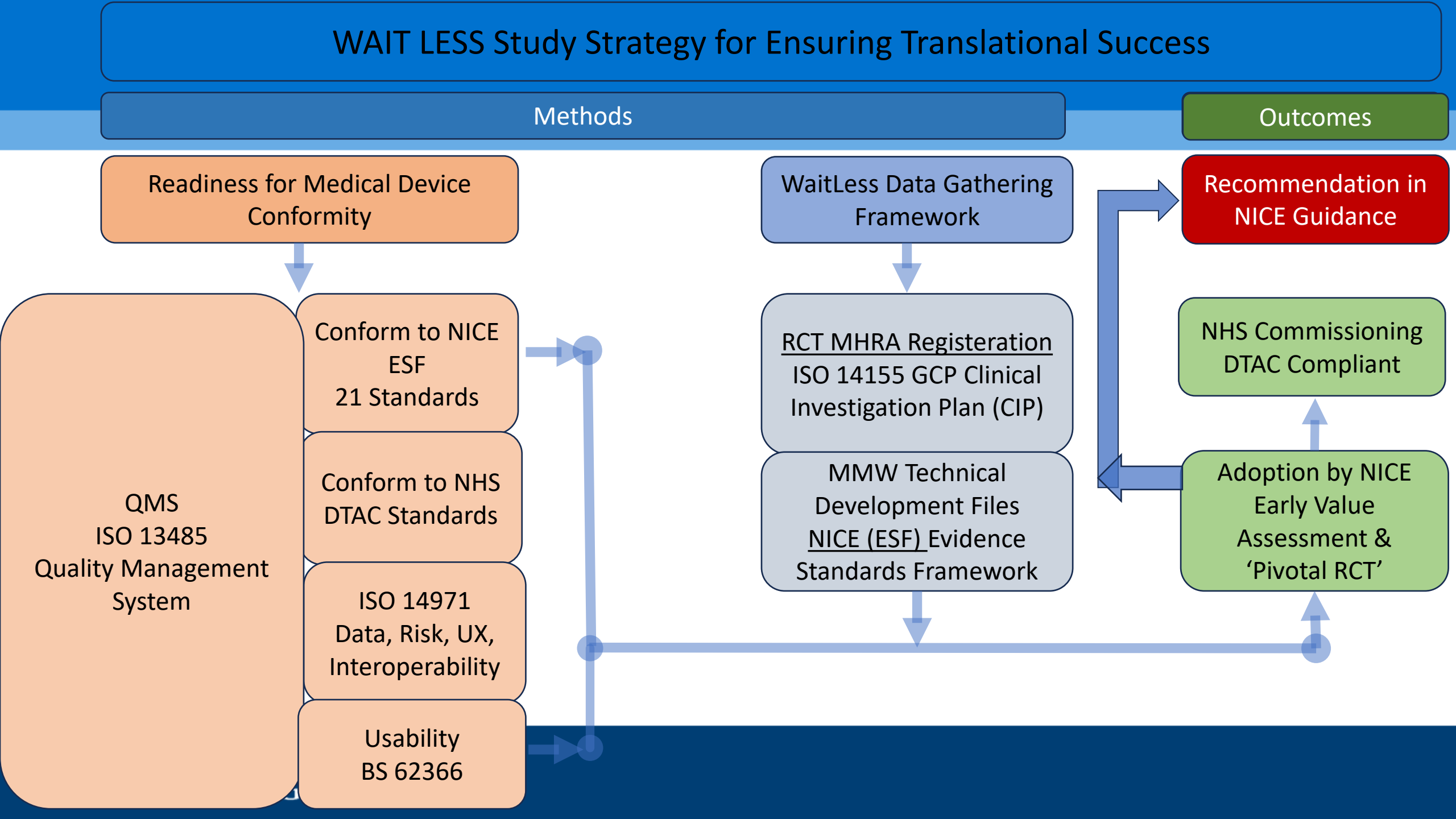
MMW Technical
Development Files
NICE (ESF) Evidence
Standards Framework

Adoption by NICE
Early Value
Assessment &
'Pivotal RCT'

QMS
ISO 13485
Quality Management
System

ISO 14971
Data, Risk, UX,
Interoperability

Usability
BS 62366



Alpha Phase Development and Testing: WP1 & 2

- Design requirements as a result of feedback:
 - Easy to assimilate, variety of formats of delivery – video, animation etc
 - Youth friendly
 - Diverse and inclusive
 - Easy to navigate, to repeat & not prescriptive in how to use
 - Not reminders of NHS brandings – avoid blue and white combination
 - More visual, not text heavy
- Content requirements:
 - Evidence based, trustworthy
 - True to BPI
 - Practical and engaging
 - Short as possible but long enough to be meaningful

Work Package 1 – Interviews and focus groups

Speaking with **young people, parents/carers** and **mental health professionals** to understand:

1. Experiences of waiting lists and treatment expectations

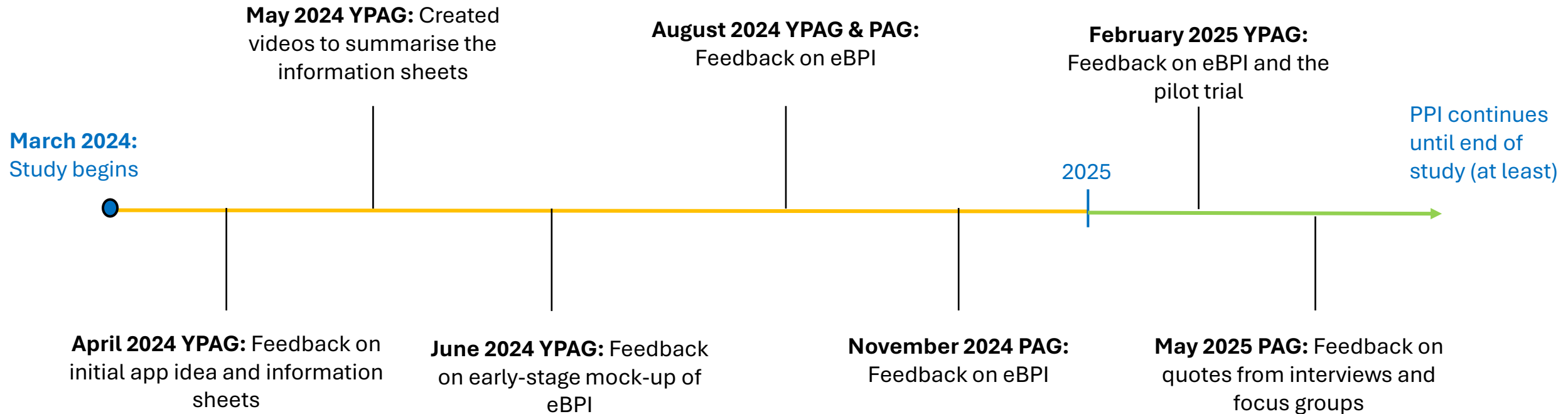
Qualitative paper on waiting list experiences



2. Opinions on eBPI and its implementation into services

Useful information for app improvement and integration into services

PPI Timeline



Co-design of eBPI

- Iterative Process with our Advisory Groups
 - Young Peoples Advisory group (YPAG)
 - Parent and Carers Advisory Group
 - Clinical advisory group
- Working with developer



Patient and Public Involvement (PPI)

Two advisory groups set up specifically for the study:

- ❖ **Young person advisory group (YPAG)** – lived experience of waiting lists, subset of Cambridge Youth Panel
- ❖ **Parent and carer advisory group (PAG)** - parent or carer of young person with lived experience, 5 members

Involvement:

- ❖ YPAG (2023) - provided feedback on initial ideas of MMW and protocol prior to funding NIHR application, and one young person edited the Plain English Summary
- ❖ YPAG and PAG (2024-now) - ongoing feedback and suggestions to improve MMW
- ❖ PAG (2025) – provided views and opinions on quotes collected in WP1 around waiting list experiences

PPI Outcomes

Inclusive as possible



Limited exclusion criteria e.g. include ADHD, Autism, self-harm

Don't use actors or AI



Two real clinicians are in the videos, and the voiceovers are a young person – already positive feedback

Be flexible with data collection



Offered focus groups AND interviews, in-person or online, use of chat function, camera on/off

Avoid NHS colours



Removed any white and blue colour combinations

Avoid digital exclusion



Will offer a device and data if they do not have access to this

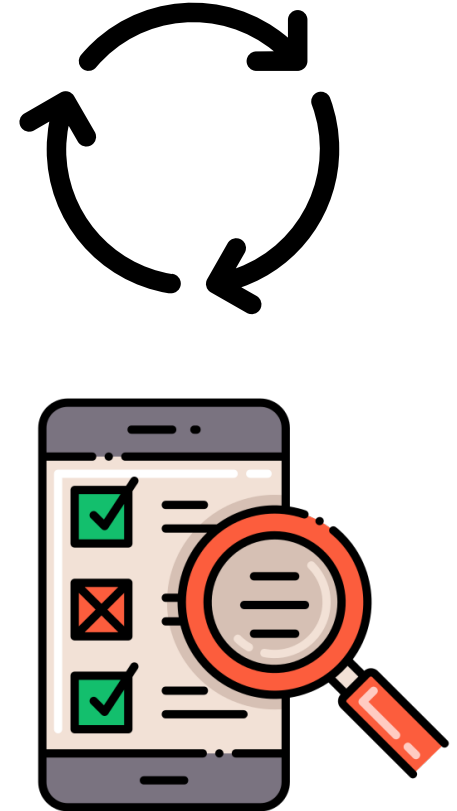
Work Package 3 – User Acceptance Testing

One round of user testing already complete – changes made to eBPI:

- Option of parent login to see what their child is receiving
- Introductory videos
- Amendments to some content, tech improvements, design improvements
- Early groundwork on Implementation

10 young people on CAMHS waiting list have been recruited to assess:

- Acceptability
 - Feasibility
 - Safety of eBPI
-
- Young people used the app over several weeks, and then provided us with feedback through interviews and an online survey
 - Findings will be used to improve and finalise app for WP4 (pilot)



Work Package 4 – Pilot trial

Design: Two-centre randomised feasibility study with embedded process evaluation

Sample: 80 young people: 12-17 years; on CYPMHS waitlist for assessment and/or treatment; primary presenting problem of unresolved or relapsed low mood, depression or anxiety; currently experiencing some symptoms of low mood (≥ 20 on the 33-item Moods and Feelings Questionnaire)

Outcomes:

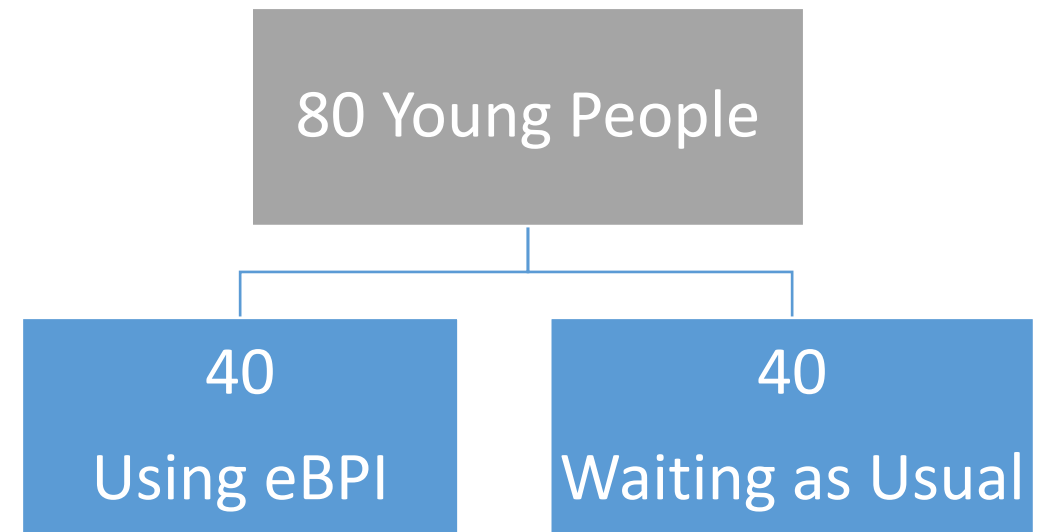
1. Feasibility of recruitment
2. Engagement with eBPI
3. Retention rate (at 18 weeks)
4. Acceptability of eBPI
5. Difference in data completeness: higher vs lower intensity data collection (random allocation)
6. Variance of depressive symptoms in the waiting list population (to support power calculation for definitive trial).

Randomised Control Trial of eBPI

Evaluate the effectiveness and feasibility of eBPI.

Forms of Assessment:

- Moods & Feelings Questionnaire (MFQ)
- Strengths and Difficulties Questionnaire Impact
- EQ-5D – Quality of Life Questionnaire
- Client Services Receipt Inventory (CSRI)
- Leaving the Waiting List
- Interviews after Intervention



Despite demonstrating efficacy in RCT, when used in real world contexts, interventions are often not effective.

Why is this?

The STADIA paper on diagnostics in CAMHS units showed:

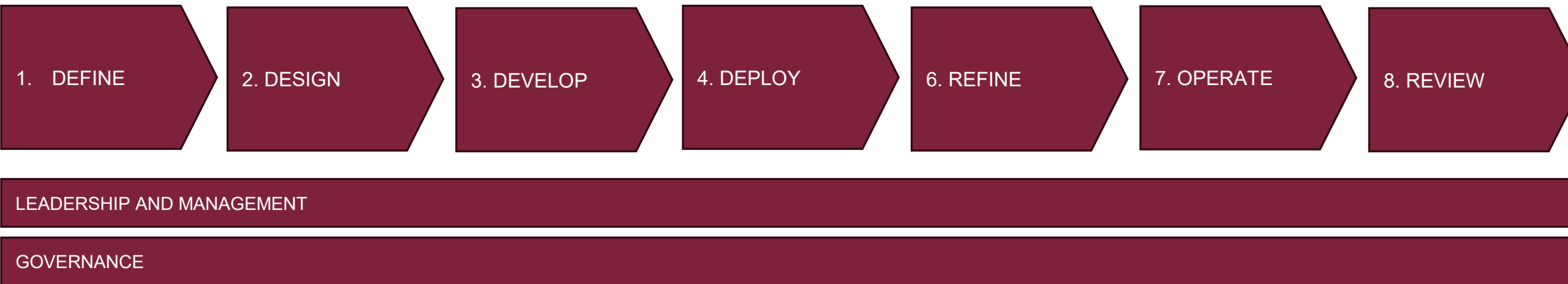
- Operating models inconsistently implemented across Departments and Trusts
- NICE guidelines not implemented in practice
- Stakeholder's buy-in and adoption was variable
- Clinicians were from a range of professional backgrounds with a range of competencies
- Interventions may not fit within wider care pathway – mismatched priorities

Solution requirements

- Clear operating model that fits clearly within care pathway
- Defined resources, roles, competences, processes, coordination mechanisms
- Training and development to build sufficient competences
- Effective change management, including clear 'future state', current state, and how to build capable capacity.

Addressing the implementation problem

- There is a need for a practical, scalable approach to help organisations adopt innovations more effectively.
- In this project, implementation has already been considered at the platform design stage, co-production and user (patient, parent and service staff) testing are key elements of this study.
- Persona modelling has been conducted to link product and use process elements with the needs of each actor in the user ecosystem. This has been validated with clinicians, young people and a commissioning manager.
- The next step is to design the implementation approach for MMW to ensure a robust deployment and effective use processes. Steps include creating a logic model, operating model vision, and realisation roadmap.



See also the MRC framework for developing and evaluating complex interventions

<https://www.bmj.com/content/374/bmj.n2061>



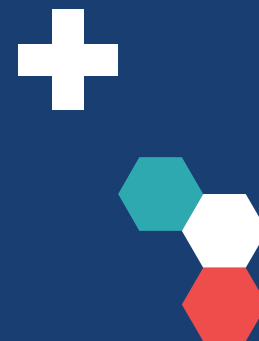
Thank you for listening

Any questions?

WAIT LESS is funded by the National Institute for Health Research grant number NIHR158583 and All research at the Department of Psychiatry in the University of Cambridge is supported by the NIHR Cambridge Biomedical Research Centre (NIHR203312) and the NIHR Applied Research Collaboration East of England. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care

Tamsin Ford

Email: tjf52@medschl.cam.ac.uk



References:

Bell A. Children's Mental Health Services: The Data Behind The Headlines [Internet]. 2018. Available from:

<https://www.centreformentalhealth.org.uk/blogs/childrens-mental-health-services-data-behind-headlines>

Boren MT, Ramey J. Thinking aloud: Reconciling theory and practice. IEEE Trans Prof Commun. 2000;43(3):261–78.

Goodyer IM, Dubicka B, Wilkinson P, Kelvin R, Roberts C, Byford S, et al. A randomised controlled trial of cognitive behaviour therapy in adolescents with major depression treated by selective serotonin reuptake inhibitors. The ADAPT trial. Health Technol Assess (Rockv). 2008;12(14).

Goodyer IM, Reynolds S, Barrett B, Byford S, Dubicka B, Hill J, et al. Cognitive-behavioural therapy and short-term psychoanalytic psychotherapy versus brief psychosocial intervention in adolescents with unipolar major depression (IMPACT): A multicentre, pragmatic, observer-blind, randomised controlled trial. Health Technol Assess (Rockv). 2017;21(12):1–93.

NICE. Depression in children and young people: identification and management [Internet]. National Institute for Clinical Excellence. 2019. Available from: <https://www.nice.org.uk/guidance/ng134>

NHS D. Mental Health of Children and Young People in England, 2021. 2023.

Cognitive behavioural therapy and short-term psychoanalytical psychotherapy versus a brief psychosocial intervention in adolescents with unipolar major depressive disorder (IMPACT): a multicentre, pragmatic, observer-blind, randomised controlled superiority trial. Goodyer IM, Reynolds S, Barrett B, et al (2017) Lancet Psychiatry (2):109-119. PMID: 27914903.

In Context: Lessons About Adolescent Unipolar Depression From the Improving Mood With Psychoanalytic and Cognitive Therapies Trial. Loades ME, Midgley N, Herring GT (2023) J Am Acad Child Adolesc Psychiatry (2023)28:S0890-8567(23)00231-9. Online ahead of print. PMID: 37121393