



GAMES FOR HEALTH
EUROPE

DISCLOSURE SLIDE
for presentations at the

GAMES FOR HEALTH EUROPE 2025 CONFERENCE

I herewith confirm that there is not any conflict of interest with the conference organization or any of its sponsors.



Erasmus MC
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**Development, evaluation, and future of Grow It!:
a gamified smartphone app to promote overall
mental well-being in adolescents**

Puck Noorlag

Games for Health Europe

31-03-2025

Mental well-being of youth

- Of people aged between 12-24 in The Netherlands:

37%

had symptoms of anxiety and/or
depression in 2010

44%

had symptoms of anxiety and/or
depression in 2023

High-risk groups

Children of parents with psychiatric disorders



Children with a chronic illness



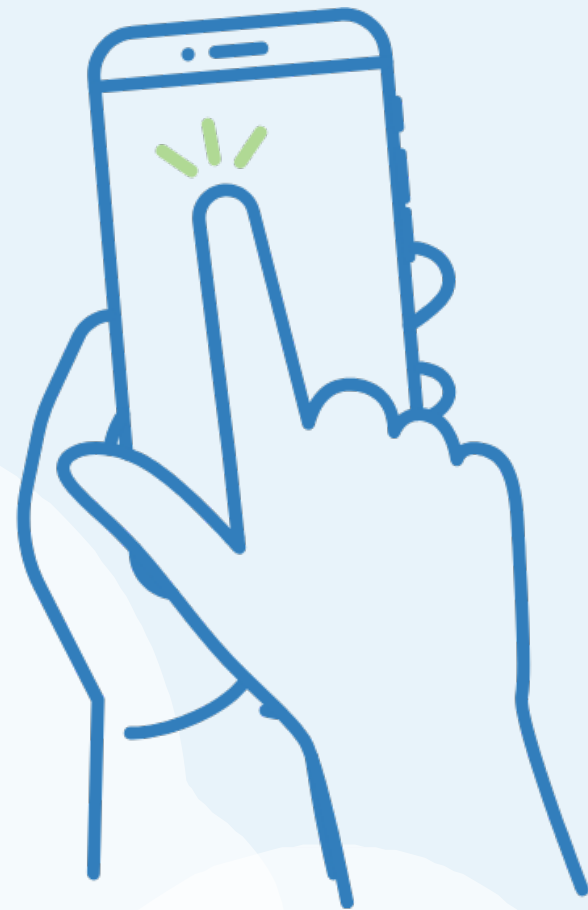
Young people growing up in stressful societal circumstances



eHealth Junior consortium

Our mission is to **prevent psychological problems**, by making **scientifically validated eHealth tools** widely available for **chronically ill children** in the Netherlands (and beyond).

Social stigma and embarrassment



Smartphones have become an essential part of daily life



Limited availability

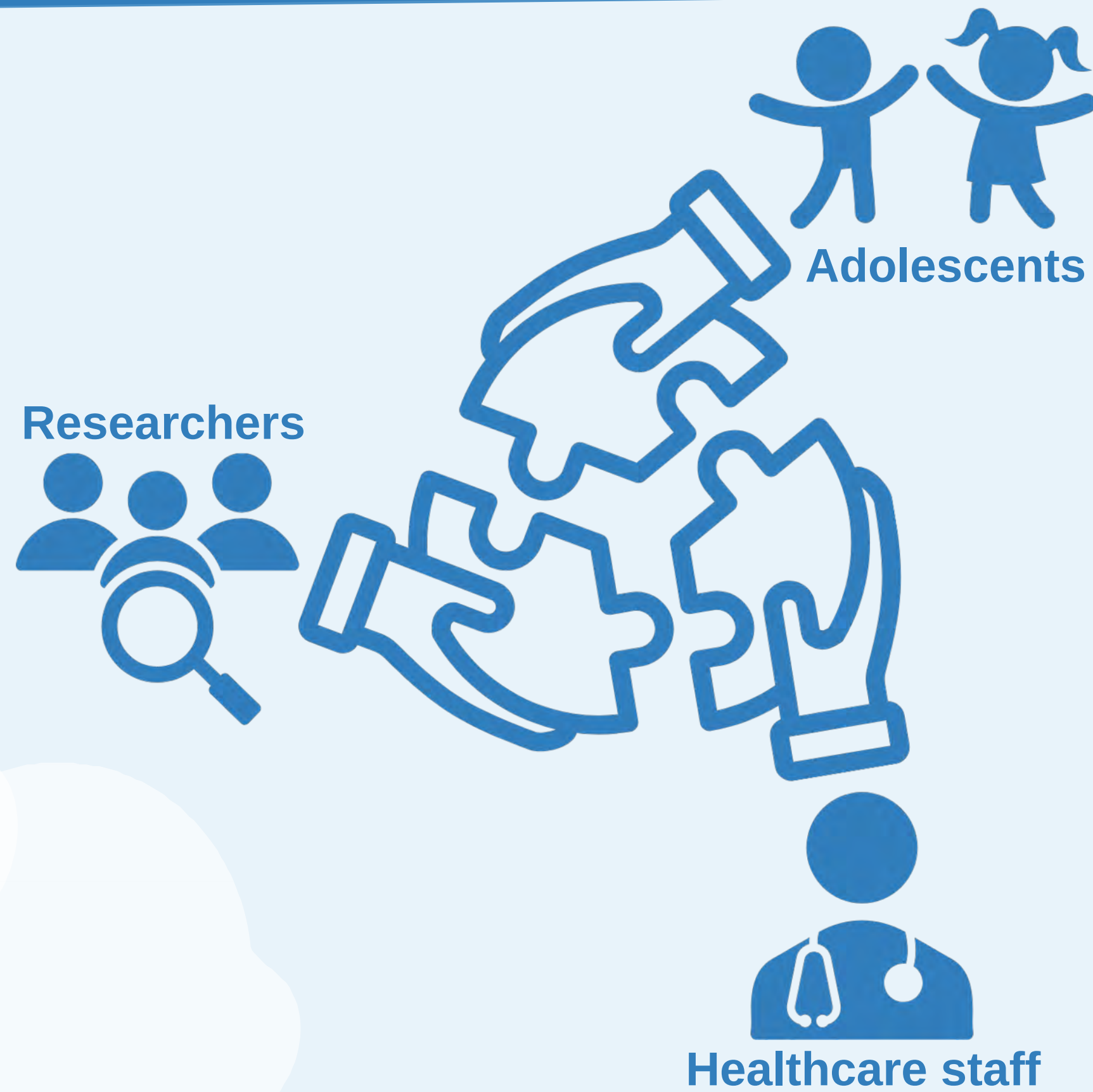
GROW IT!

TAKE THE

CHALLENGE



Co-creation



Experience Sampling Method (ESM)

At this moment i feel

relaxed

● Very much

● A little bit

● Not at all

NEXT

MOOD

DURING THE DAY

Thursday, 28th of January

tense

angry

worried

confident

happy

sad

satisfied

tired

08.00

MOOD

SITUATION

WHERE SCHOOL

tense

angry

worried

confident

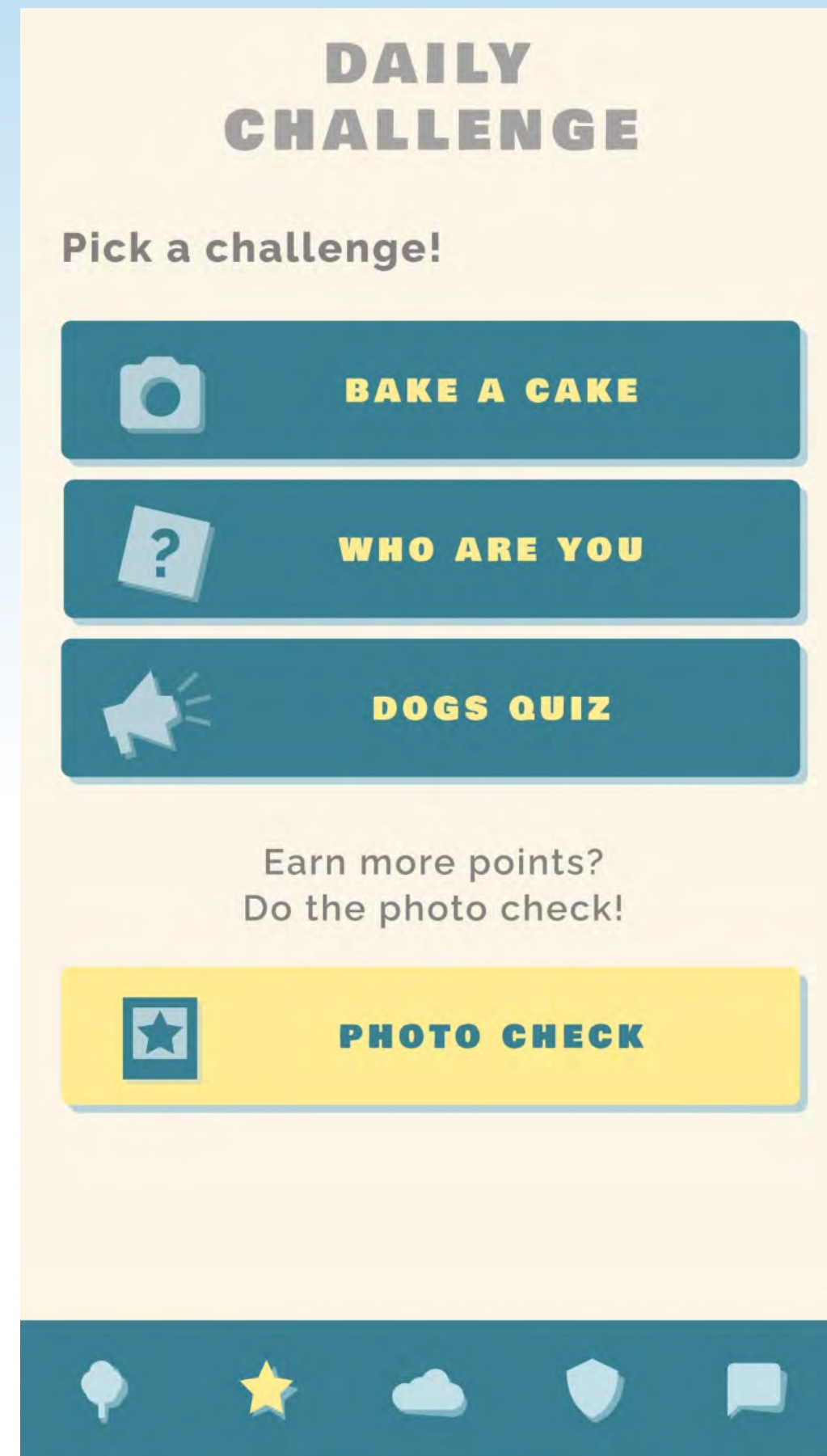
happy

sad

satisfied

tired

Cognitive behavioral therapy challenges



Co-created with:

- Clinical psychologists
- Game designers
- Youth test panel



High-risk groups

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COVID-19 pandemic



- 2 cohorts
- $n = 3153$

User experience COVID-19 study

7/10

Average rating overall

8/10

Average rating design

74%

Percentage of participants that
would recommend Grow It!

Effectiveness COVID-19 study

41-

Percentage of participants that improved in wellbeing

53%

Limitation: no control group

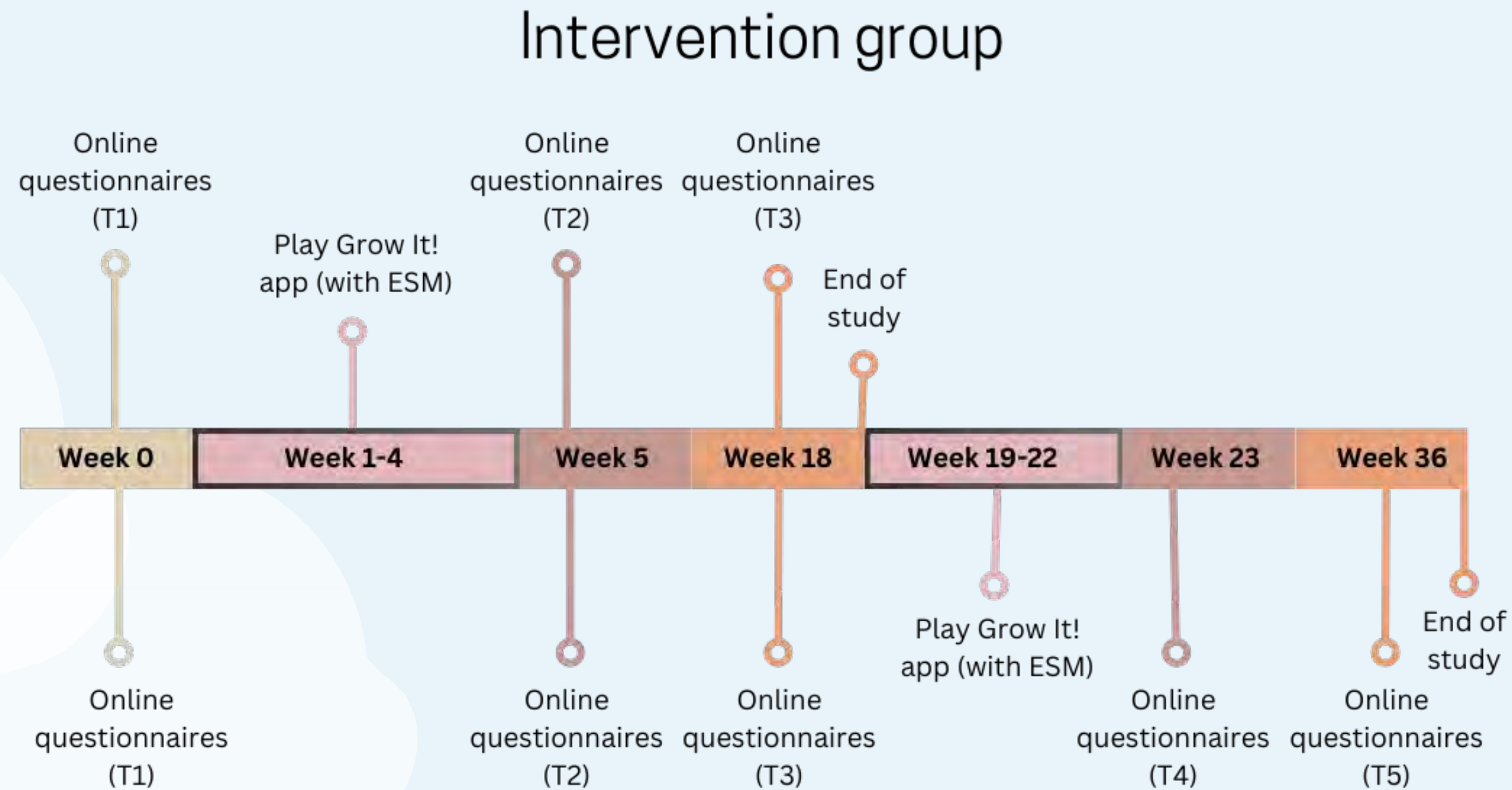
Next step: randomized controlled trial



Participants with a higher risk profile benefited the most

Randomized controlled trial

- 10-18 year olds with a chronic somatic condition
- Primary outcome: symptoms of anxiety and depression



Waitlist control group

Preliminary results

Further development

- **Motivational onboarding** to explain purpose
- **Coping profile** to gain insight in coping styles
- **Backend** to support future (clinical) implementation

Planned study

- Randomized controlled trial
- Adolescents with a chronic somatic condition
- Broader recruitment
- (Cost-)effectiveness and implementation

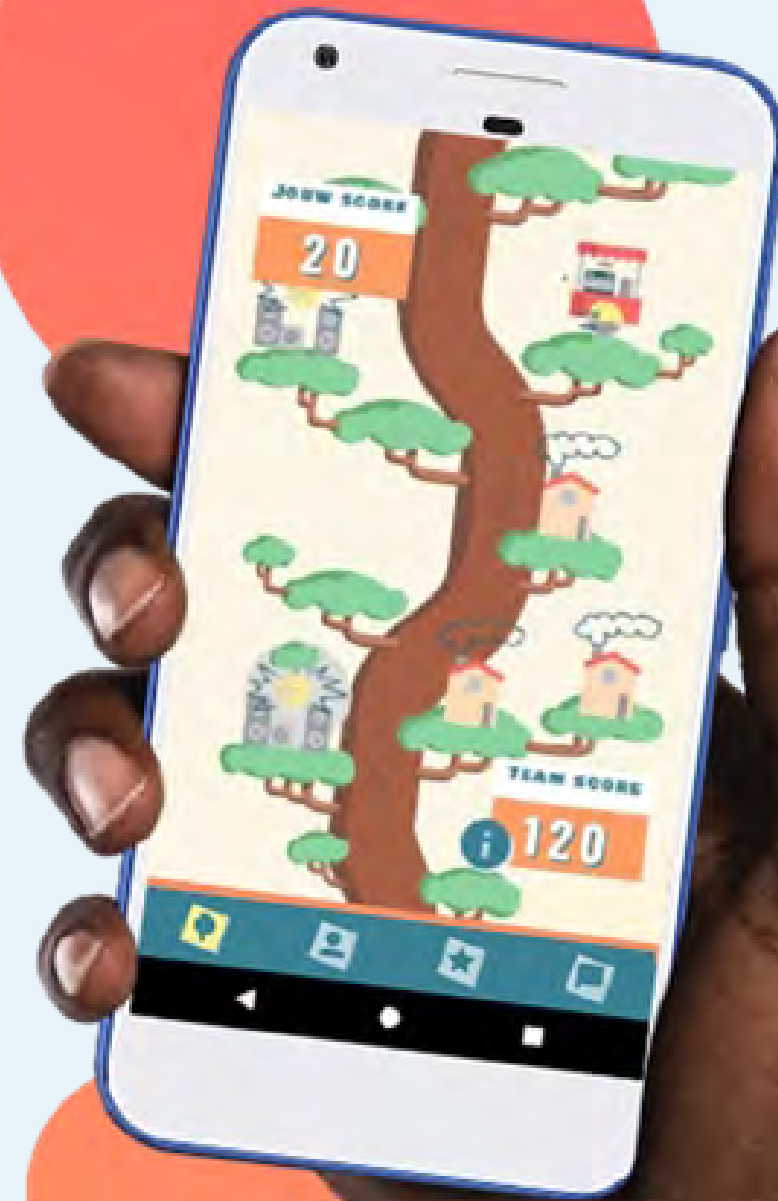


Cost-effectiveness and implementation

- More evidence is needed
- Quality adjusted life years
- Financial and societal benefits
- Clinical practice
- App store

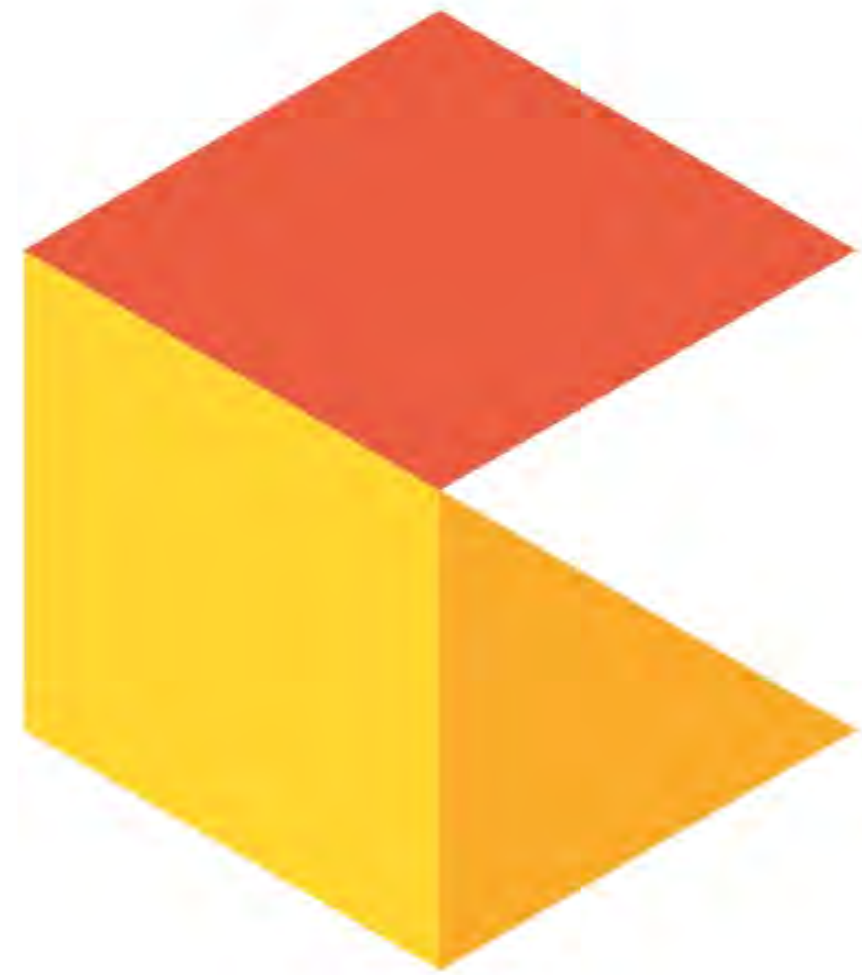


Thank you for your attention!



Acknowledgement





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