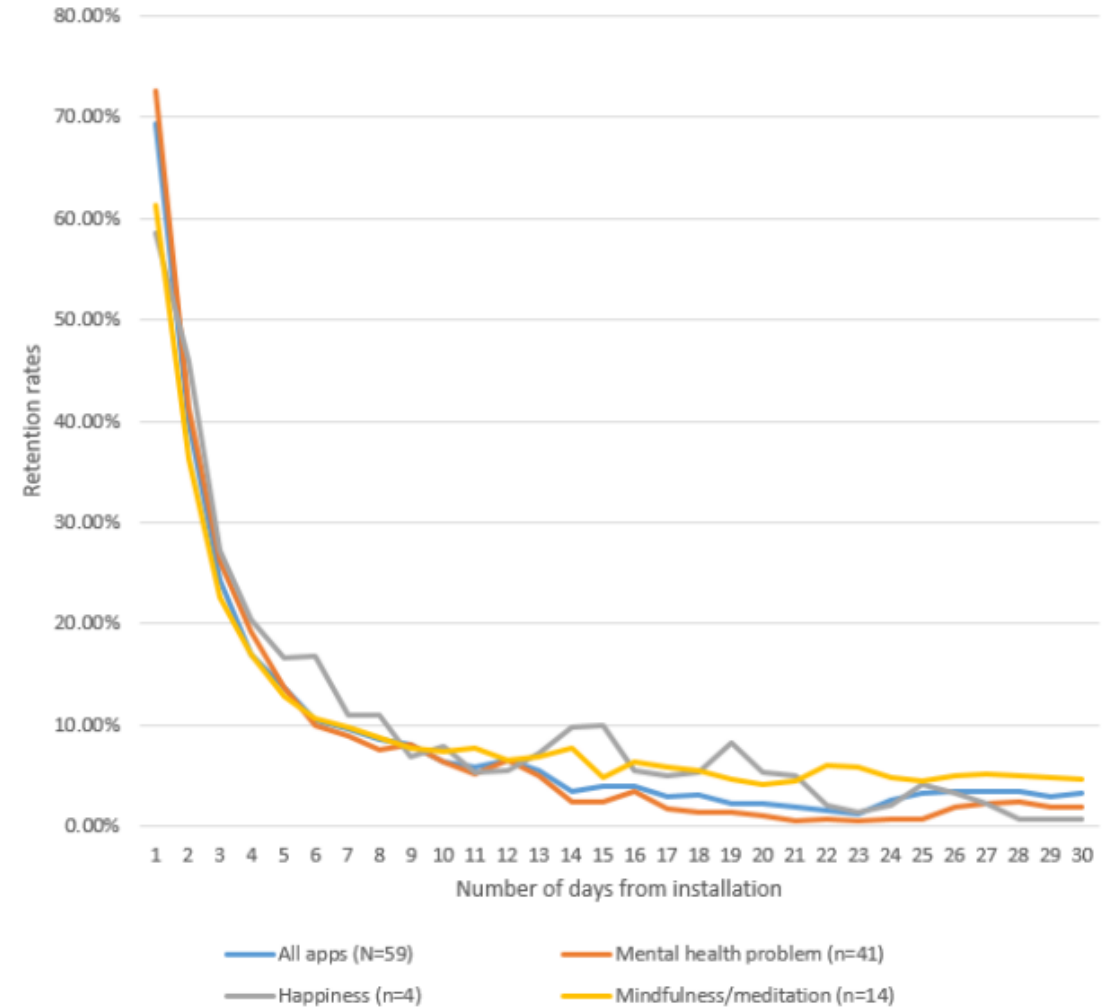# Usage of Unguided, Guided, and Blended Care for Depression offered in Routine Clinical Care: Lessons Learned

Fien Buelens , Prof. Dr. Patrick Luyten, Herwig Claeys, Dr. Eva Van Assche & Dr. Tom Van Daele

Digital mental health approaches

- Barriers in mental health care

- Digital mental health approaches
  - Effectiveness

    Andersson et al., 2019; Grist et al., 2019;

    Hilty et al., 2016; Jonsson et al., 2023

  - Potential: direct access, anonymous…

  - Challenges: drop out Ebert et al., 2018

  - Guidance Renfrew et al., 2020

Baumel et al., 2019

2

Unguided, Guided, and Blended Care for Depression offered in Routine Care

Exploration of participants' use of a free, government-funded and publicly available online platform in Flanders: 'Depressiehulp'

Treatment modalities

Self-help

Pure self-help
(e-mail reminders)

6 shortened module versions

Recommended to complete in 10-12w

Guided

Self-help
+
Chat
(≤ 12 sessions)

Therapist selects from 17 modules

Blended

Face to face
+
Platform
(therapist referral)

Therapist selects from 17 modules

The platform 'Depressiehulp'

- Depression severity measured with PHQ-9 questionnaire at the beginning

- Modules
  - Psycho-education
  - Cognitive-behavioral therapy-based modules
  - Psychodynamic therapy-based modules
  - Relaxation-focused modules

Research questions

Among the three treatment modalities, we examine:

1. The relationship between the severity of depression at start and engagement

2. The total duration of engagement with the platform

3. The usage: number of exercises

4. The usage of specific modules

Methods

- Website data from all platform users between May 2018 and May 2022

- Assumptions
  - One exercise per hour
  - Trajectory: active usage period on the platform
    - Trajectory ends after three months of inactivity
    - If reactivated after 3 months: new trajectory
  - Duration of engagement: time between the first and last day in trajectory
  - Drop outs: excluding those active for only one day

Data

2656 participants
- Inactivation for 3 months

2846 trajectories
- 1671 early dropouts

1175 trajectories
- Of which 892 with PHQ-9

1175 trajectories – 3 treatment modalities

Self-help
308 trajectories

Online
483 trajectories

Blended
384 trajectories

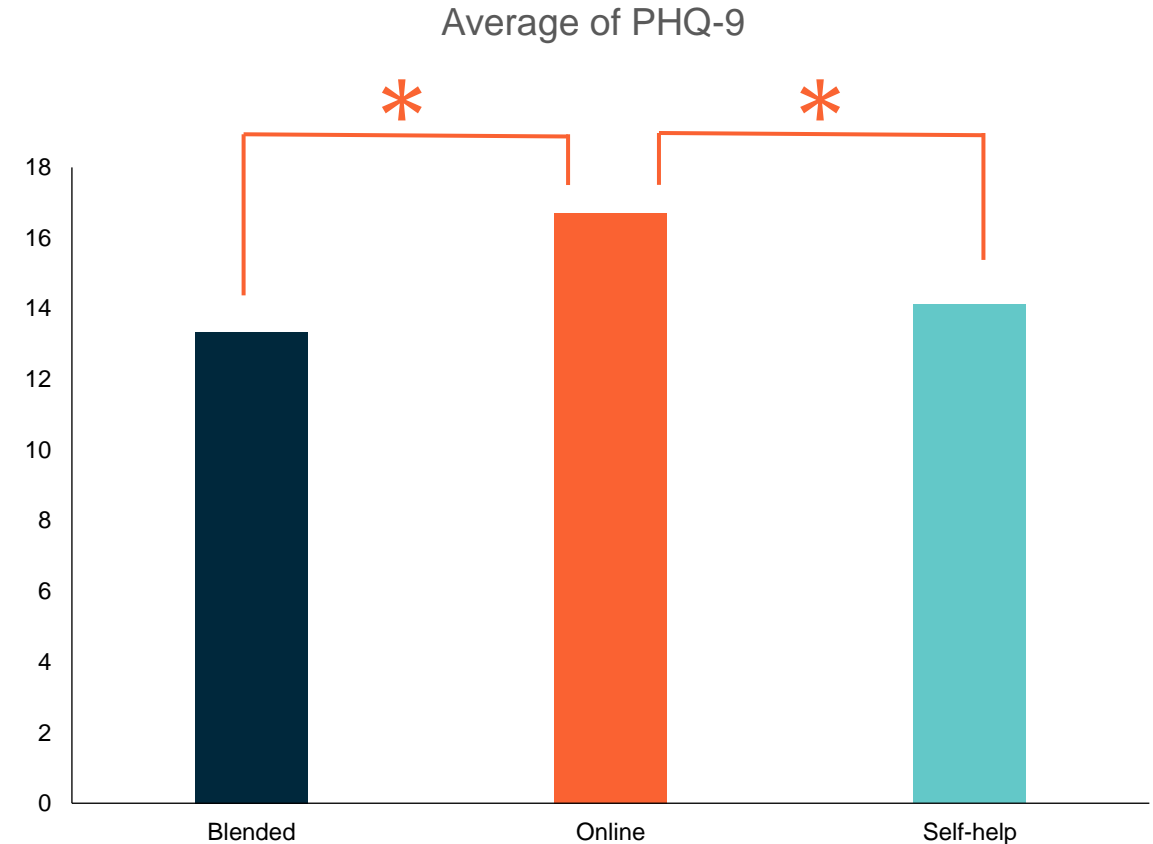# 1. Depression severity at start

A Kruskal-Wallis ($\chi^2(2) = 60.25$, $p < .001$) and Dunn's pairwise tests in SPSS shows:
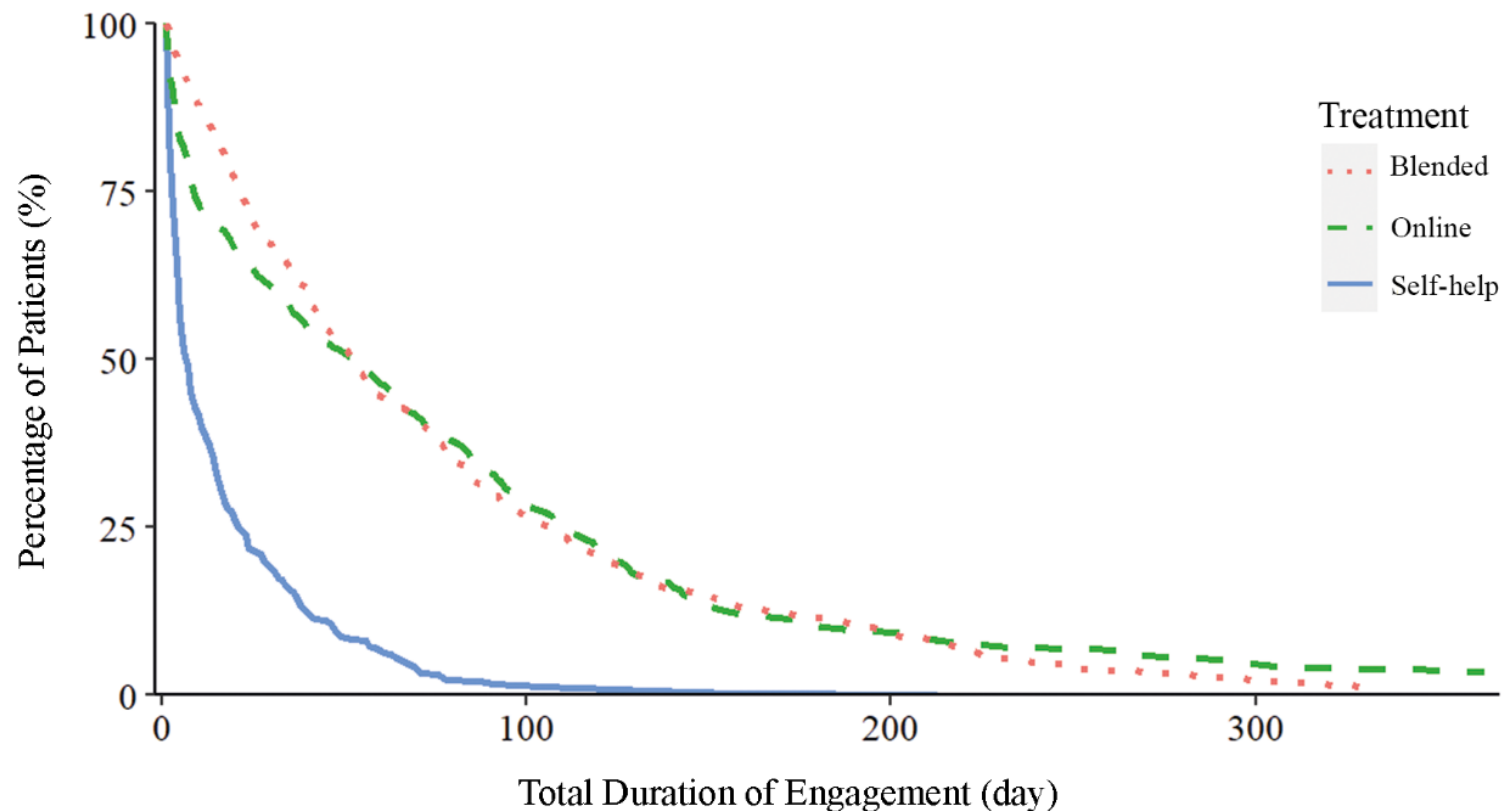
Online > Self-help
Online > Blended
Blended = Self-help

No significant Pearson's correlation between depression severity and total duration of engagement per trajectory: $r(892) = -.031$, $p = .362$.

Average of PHQ-9

2. Total duration of engagement

A Kruskal-Wallis ($\chi^2(2)$ = 246.73, p <.001) and Dunn's pairwise tests in SPSS shows:
Online > Blended > Self-help

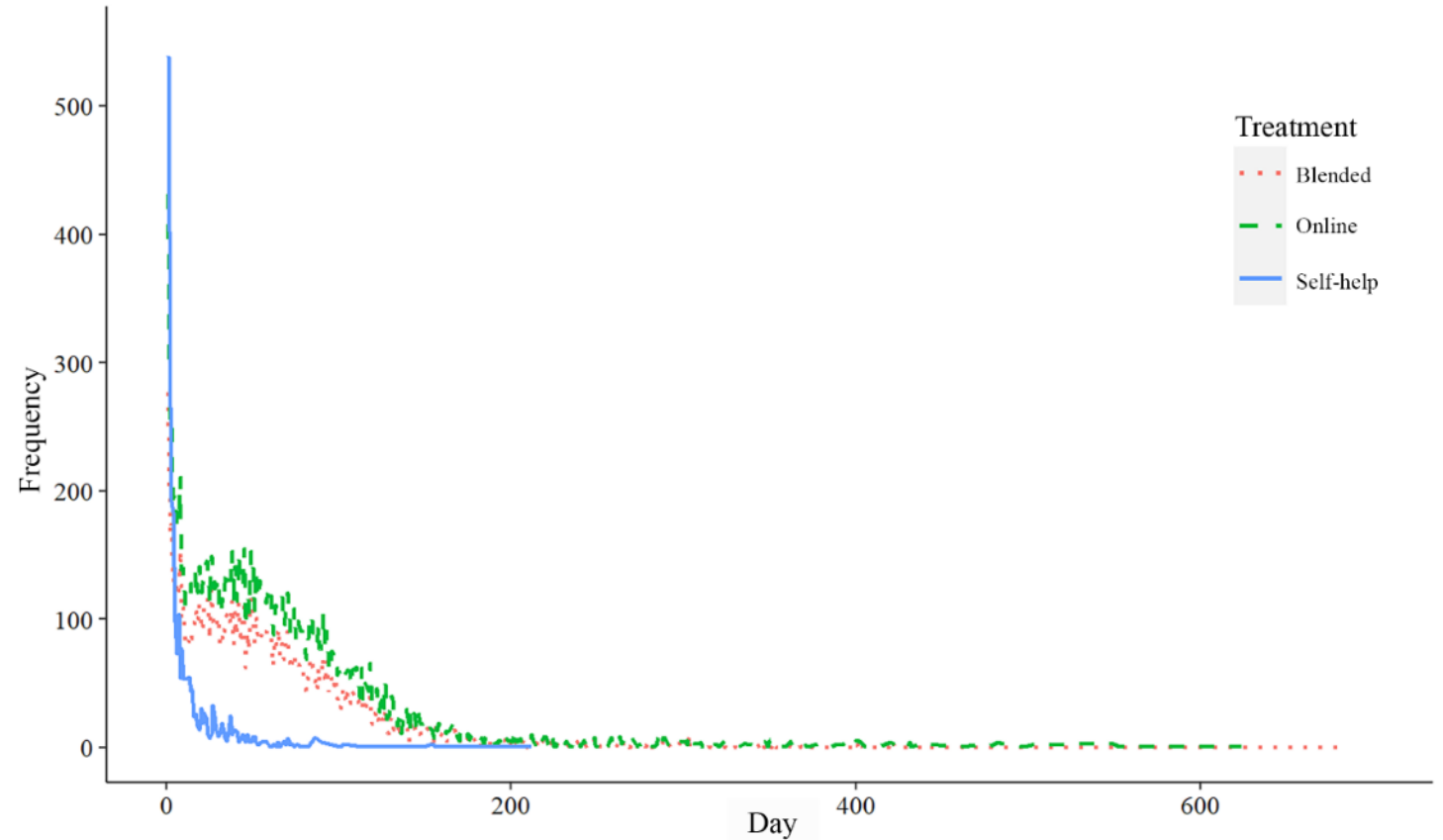# 3. The usage: Number of exercises

A Kruskal-Wallis ($\chi^2(2) =$ 78.90, p <.001) and Dunn's pairwise tests in SPSS shows:
Online > Blended > Self-help

No significant Pearson's correlation between depression severity at start and usage : $r(892) = -.024, p = .473$.

In self-help, 51% of the exercises were made after the first 5 days, while in online and blended this was only after 60 days.

4. The usage of specific modules

**Most frequently used modules:**

1. Mood barometer (60.3%): Tracking mood across time

2. Helpful thinking (5.3%): Cognitive-behavioural approach on dysfunctional thoughts

3. My thoughts (4.7%): Relationship between thoughts, feelings and actions

4. Relationship patterns (4.7%): Psychodynamic approach on relationships

5. Week planner (3.1%): Structuring daily activities

Other Most Frequently Used Modules
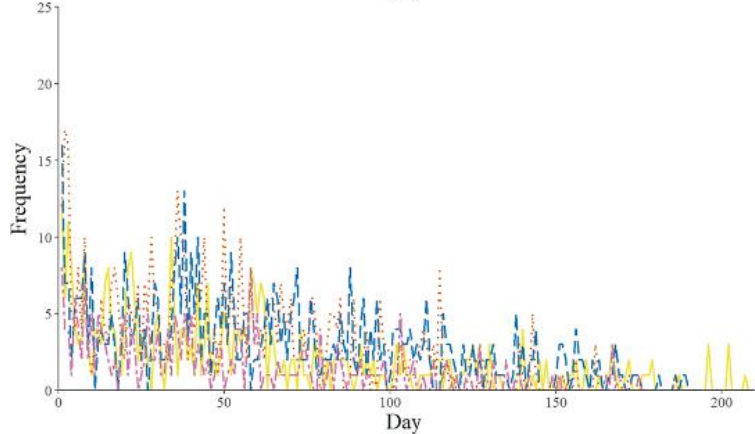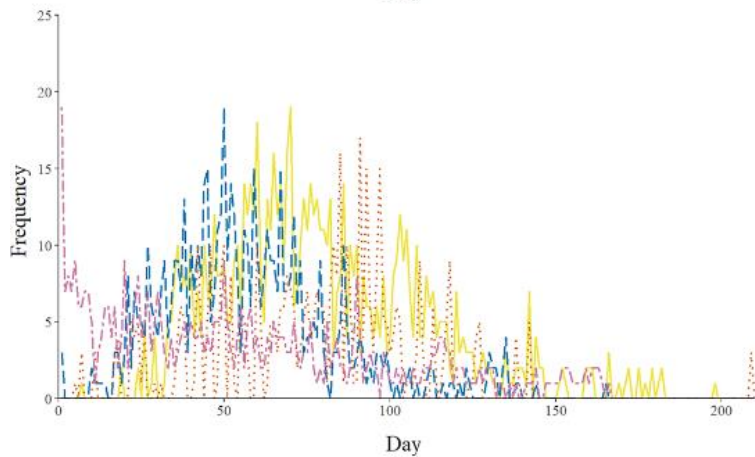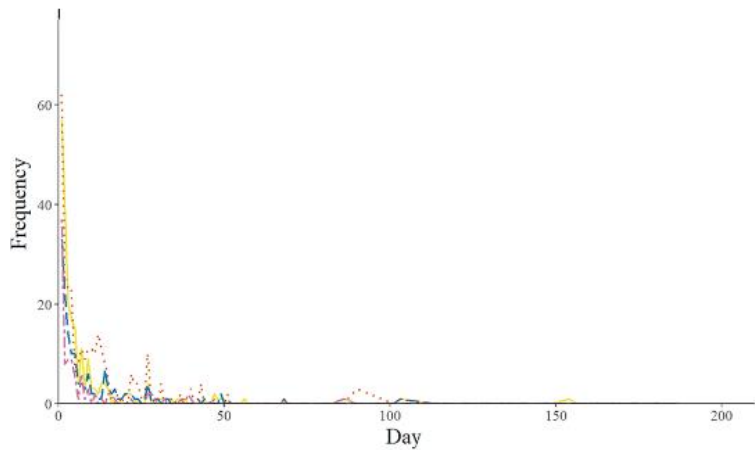
Mood Barometer
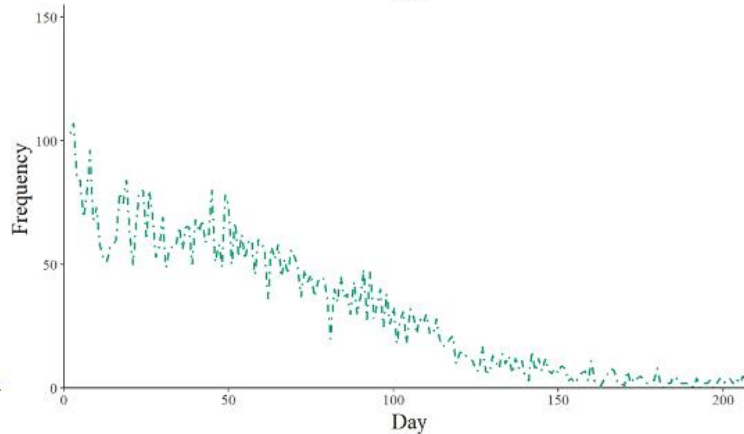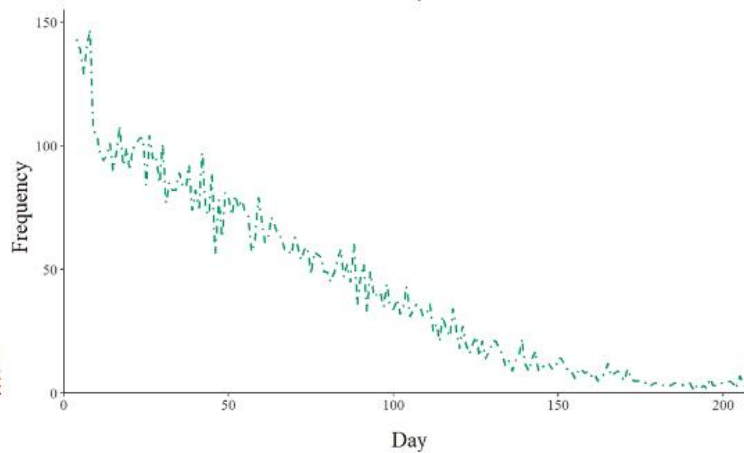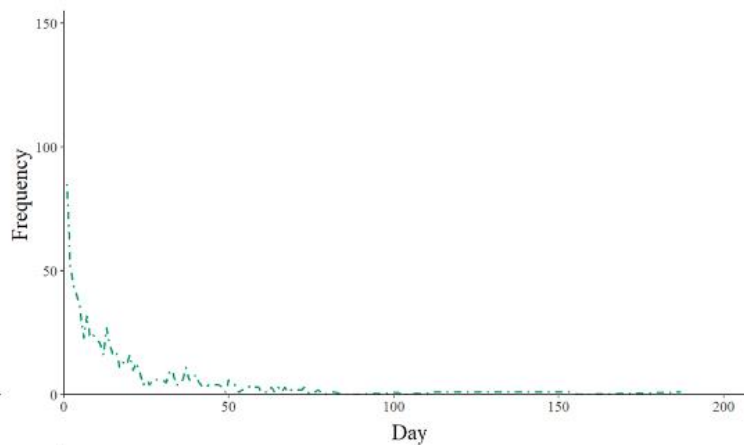
Self-help

Online

Blended

Helpful Thinking
My Thoughts
Relationship Patterns
Week Planner
Mood Barometer

Conclusion

- Large drop out in the three treatment modalities
- Adherence tends to increase with additional support
    - Longer engagament
    - More interaction
- More research is needed to identify ideal support, as the pattern of online guidance and the blended modality was similar

- No demographic or clinical features of participants were captured
- No effectiveness data is included

Online interventions are promising tools, but more research in naturalistic use conditions is needed to optimize implementation.
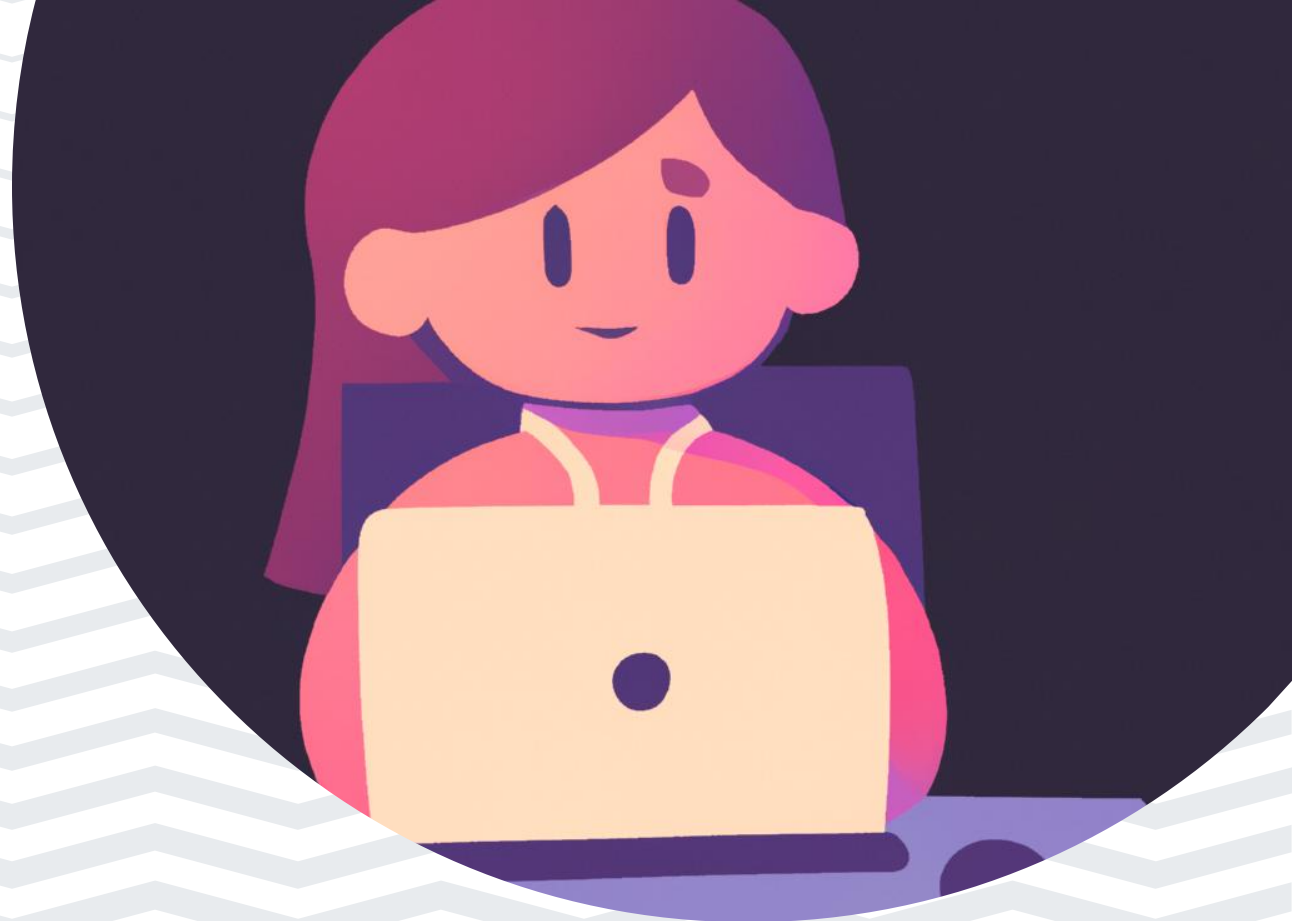
Thank you!

Fien Buelens

fien.buelens@thomasmore.be
www.digitalmentalhealth.be

*Presentations of
our research group*

References

- Andersson, G., Titov, N., Dear, B. F., Rozental, A., & Carlbring, P. (2019). Internet-delivered psychological treatments: from innovation to implementation. *World Psychiatry, 18*, 20–28. https://doi.org/10.1002/wps.20610

- Baumel, A., Muench, F., Edan, S., & Kane, J. M. (2019). Objective user engagement with mental health apps: Systematic search and panel-based usage analysis. *J. Med. Internet Res, 21*(9), e14567–e14567. https://doi.org/10.2196/14567

- Ebert, D. D., Van Daele, T., Nordgreen, T. Karekla, M., Compare, T. A., Zarbo, C., Brugnera, A., Øverland, S., Trebbi, G., Jensen, K. L., Kaehlke, F., & Baumeister, H. (2018). Internet and mobile-based psychological interventions: applications, efficacy and potential for improving mental health. A report of the EFPA e-health taskforce. *Eur. Psychol., 23*, 167–187. https://doi.org/10.1027/1016-9040/a000318

- Grist, R., Croker, A., Denne, M., & Stallard, P. (2019). Technology delivered interventions for depression and anxiety in children and adolescents: A systematic review and meta-analysis. *Clin. Child Fam. Psychol. Rev., 22*, 147–171. https://doi.org/10.1007/s10567-018-0271-8

- Hilty D. M., Yellowlees P. M., Myers K., Parish M. B., & Rabinowitz T. (2016) The effectiveness of e-mental health: Evidence base, how to choose the model based on ease/cost/strength, and future areas of research. In: Mucic D., Hilty D. (eds) e-Mental Health. Springer, Cham. https://doi.org/10.1007/978-3-319-20852-7_6

- Jonsson, U., Linton, S. J., Ybrandt, H., Ringborg, A., Leander, L., Moberg, K., Hultcrantz, M., & Arnberg, F. K. (2023) Internet-delivered psychological treatment as an add-on to treatment as usual for common mental disorders: A systematic review with meta-analysis of randomized trials. *J. Affect. Disord., 322*, 221–231. https://doi.org/10.1016/j.jad.2022.11.036

- Renfrew, M. E., Morton, D. P., Morton, J. K., Hinze, J. S., Przybylko, G., & Craig, B. A. (2020). The influence of three modes of human support on attrition and adherence to a web- and mobile app-based mental health promotion intervention in a nonclinical cohort: Randomized comparative study. *J. Med. Internet Res., 22*(9), e19945. https://doi.org/10.2196/19945

- The image on the 'thank you'-slide was created with the assistance of DALL·E 2.