

Effectiveness and public health impact of SELFIE, a transdiagnostic, blended ecological momentary intervention for improving self-esteem in young people exposed to childhood adversity: a hybrid effectiveness-implementation study in 6 European countries

Anna Kessler¹, Leonie Burghoff¹, Frederike Schirmbeck¹, Claudi Bockting^{2,3}, Matthew Broome⁴, Mari-Liis Kaldoja^{5,6,7}, Giovanni de Girolamo⁸, Covadonga Martinez⁹, Jan Boehnke^{1,10}, Therese van Amelsvoort¹¹, Anita Schick¹ & Ulrich Reininghaus^{1,12,13,14}

1 Department Public Mental Health, Central Institute of Mental Health, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany; 2 Department of Psychiatry, Amsterdam UMC, University of Amsterdam, Amsterdam, the Netherlands; 3 Centre for Urban Mental Health, University of Amsterdam, Amsterdam, the Netherlands; 4 School of Psychology, University of Birmingham, Birmingham, UK; 5 Institute of Educational Sciences, Tallinn University, Tallinn, Estonia; 6 Brain Injury Clinical Research Center, Kennedy Krieger Institute, Baltimore, MD, USA; 7 School of Medicine, Johns Hopkins University, Baltimore, MD, USA; 8 Unit of Epidemiological Psychiatry and Digital Mental Health, IRCCS Istituto Centro San Giovanni di Dio Fatebenefratelli, Brescia, Italy; 9 Department of Child and Adolescent Psychiatry, Institute of Psychiatry and Mental Health, Hospital General Universitario Gregorio Marañón, Instituto de Investigación Sanitaria Gregorio Marañón (IISGM), CIBERSAM, ISCIII, School of Medicine, Universidad Complutense, Madrid, Spain; 10 School of Health Sciences, University of Dundee, Dundee, UK; 11 Department of Psychiatry, Psychology & Neuroscience, King's College London, London, UK; 12 Health Service and Population Research Department, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK; 13 ESRC Centre for Society and Mental Health, King's College London, London, UK; 14 German Center for Mental Health (DZPG), partner site Mannheim-Heidelberg-Ulm, Germany



Background

- Most mental disorders first emerge in adolescence and contribute substantially to disease burden [1;2]
- Childhood adversity is one of the most pervasive transdiagnostic risk factors for various mental disorders [3;4]
- Selective interventions targeting the consequences of childhood adversity in young people offer an adjunct to primary prevention and may improve well-being, resilience, and mental health in this priority target population
- The EU consortium YOUTHreach investigates 3 interventions for promoting youth mental health

Aims

- Translate, adapt, and implement** SELFIE with clinicians and young people in line with ethical/regulatory requirements in 6 European countries
- Evaluate RE-AIM** (Reach, Effectiveness, Adoption, Implementation, Maintenance) in a multi-country RCT to determine the public health impact and sustainability of implementation

Methods I

Participants

- n = 448 young people (n = 64 each)

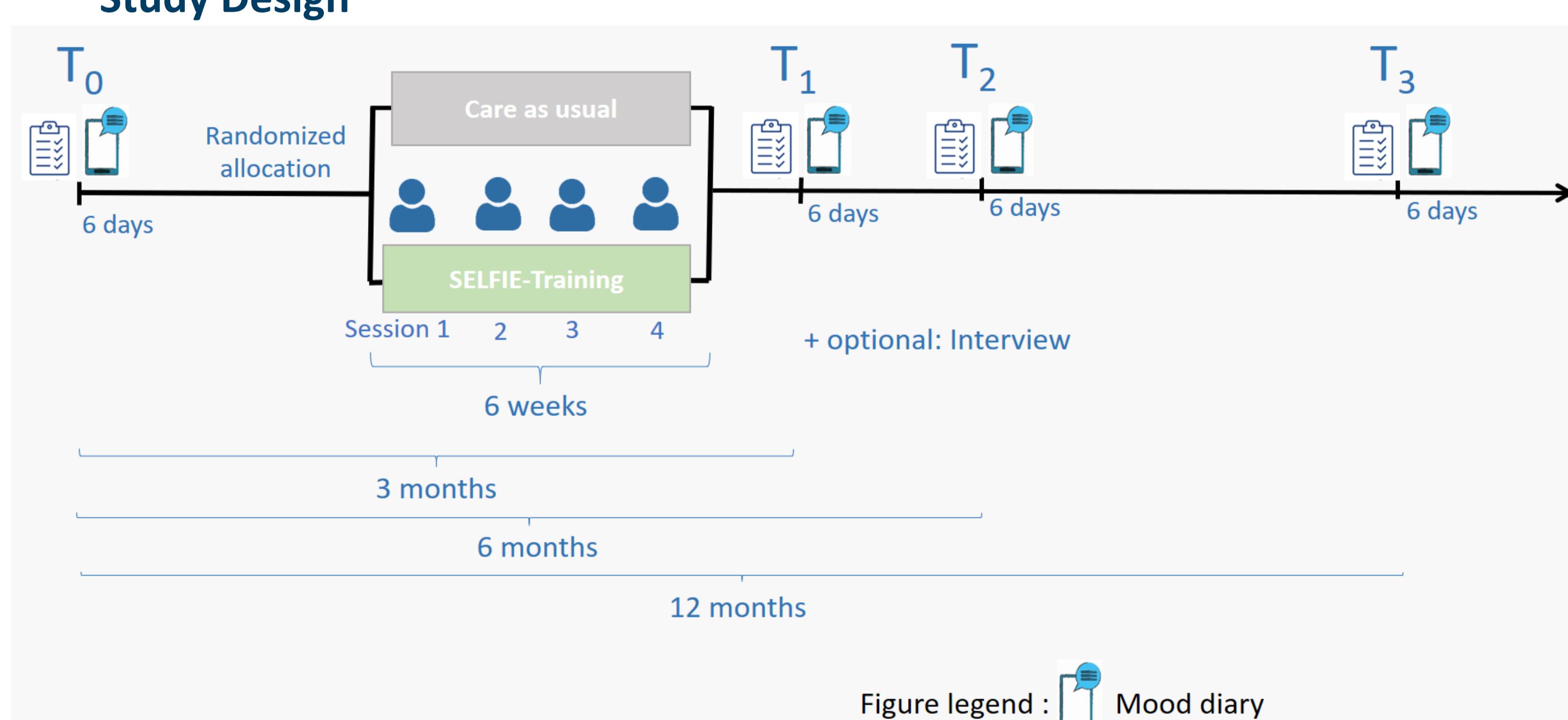
Inclusion criteria:

- Aged 14–25 years
- High psychological distress (Core-10, SCL-90R cutoff)
- Low self-esteem (RSES)
- Exposure to childhood adversity

Exclusion criteria:

- insufficient proficiency in the main country language
- organic mental disorder
- severe intellectual disability (ICD-10 F70–F79) or developmental disorder (ICD-10 F80–F89) impairing capacity to consent
- acute risk of harm to self or others

Study Design

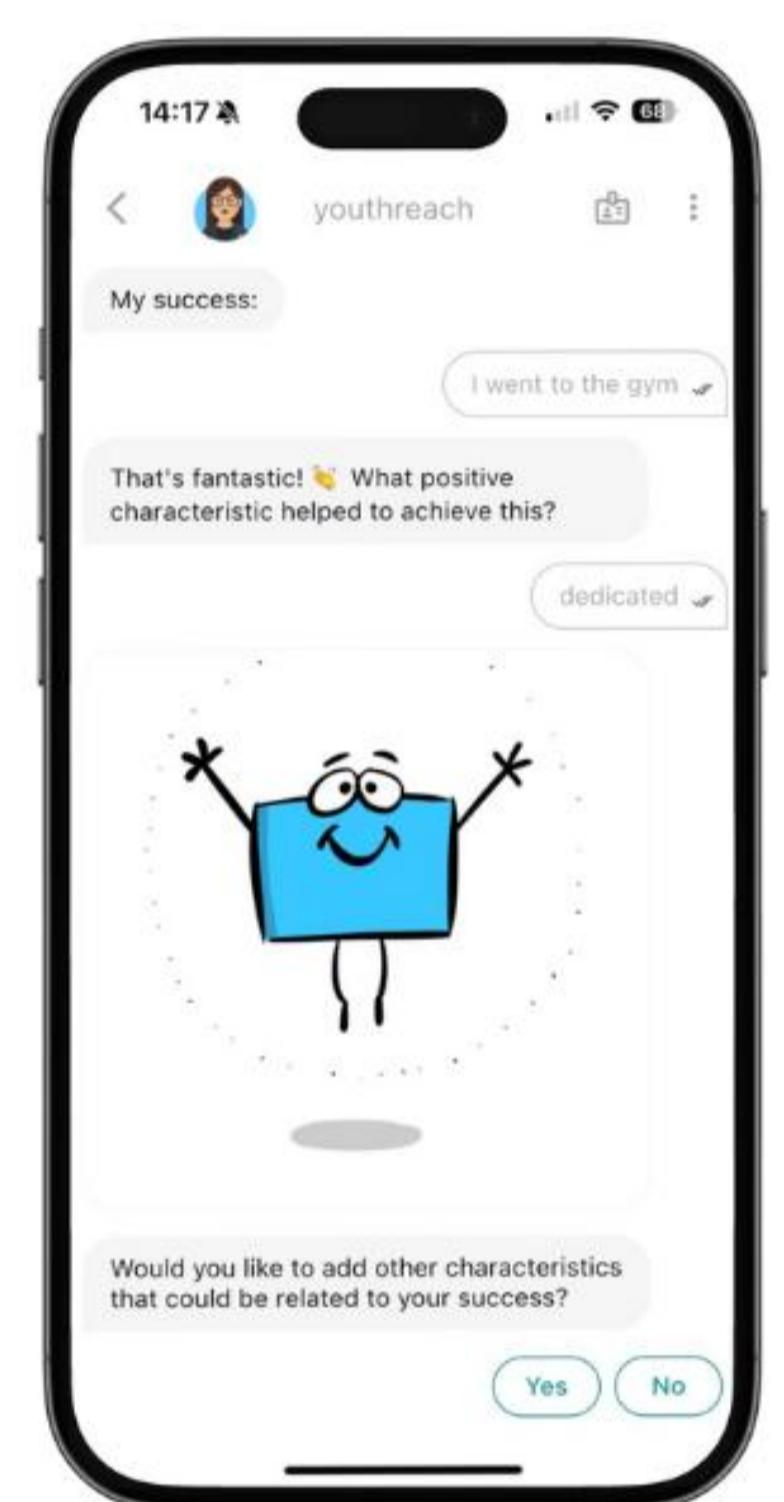


- Hybrid effectiveness-implementation study: Parallel-group, assessor- and analyst-blind, multi-country RCT
- Random allocation to the experimental condition (CAU + SELFIE) or Care-As-Usual (CAU)

Methods II

Intervention

- guided, smartphone-supported, CBT-based ecological momentary intervention (3 sessions + emails) designed to improve self-esteem and reduce psychopathology [5]



EU-MDR

Measures

- General psychopathology (SCL-90R)
- Psychological distress (CORE-10), Depression (PHQ-9), Anxiety (GAD-7)
- Wellbeing (Mylife tracker; WEMWEBS), Self-esteem (RSES; SERS)
- Resilience (CD-RISC), Social functioning (WSAS), Quality of life (WHOqol-bref), Service attachment (SAQ)
- user-led/co-created outcome measure

Data analysis

- Primary hypothesis: General psychopathology (SCL-90-R) at 6-month follow-up will be lower in the experimental condition (SELFIE + CAU) compared to the control condition (CAU) tested with a linear regression model

Discussion

This effectiveness-implementation trial will determine whether integrating SELFIE into routine public mental health care across Europe yields superior outcomes and meaningful public health impact compared with care as usual.

References

- [1] Copeland, W., Shanahan, L., Costello, E. J., & Angold, A. (2011). Cumulative Prevalence of Psychiatric Disorders by Young Adulthood: A Prospective Cohort Analysis From the Great Smoky Mountains Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50(3), 252–261. <https://doi.org/10.1016/j.jaac.2010.12.014>
- [2] Gore, F. M., Bloem, P. J., Patton, G. C., Ferguson, J., Joseph, V., Coffey, C., Sawyer, S. M., & Mathers, C. D. (2011). Global burden of disease in young people aged 10–24 years: A systematic analysis. *The Lancet*, 377(9783), 2093–2102. [https://doi.org/10.1016/S0140-6736\(11\)60512-6](https://doi.org/10.1016/S0140-6736(11)60512-6)
- [3] Green J., McLaughlin K., Berglund P., et al. Childhood Adversities and Adult Psychiatric Disorders in the National Comorbidity Survey Replication I: Associations With First Onset of DSM-IV Disorders. *Arch Gen Psychiatry*. 2010;67(2):113–123. <https://doi.org/10.1001/archgenpsychiatry.2009.186>
- [4] Varese, F., Smeets, F., Drukker, M., Lieverse, R., Lataster, T., Viechtbauer, W., Read, J., van Os, J., & Bentall, R. P. (2012). Childhood Adversities Increase the Risk of Psychosis: A Meta-analysis of Patient-Control, Prospective- and Cross-sectional Cohort Studies. *Schizophrenia Bulletin*, 38(4), 661–671. <https://doi.org/10.1093/schbul/sbs050>
- [5] Reininghaus, U., Daemen, M., Postma, M. R., Schick, A., Hoes-van der Meulen, I., Volbracht, N., Nieman, D., Delespaul, P., de Haan, L., van der Pluijm, M., Breedvelt, J. J. F., van der Gaag, M., Lindauer, R., Boehnke, J. R., Viechtbauer, W., van den Berg, D., Bockting, C., & van Amelsvoort, T. (2024). Transdiagnostic Ecological Momentary Intervention for Improving Self-Esteem in Youth Exposed to Childhood Adversity: The SELFIE Randomized Clinical Trial. *JAMA Psychiatry*, 81(3), 227–239. <https://doi.org/10.1001/jamapsychiatry.2023.4590>

More information?

www.Youth-reach.eu
 [@Youthreach_eu](https://www.instagram.com/Youthreach_eu)

Contact:

Selfie-studie@zi-mannheim.de
Anna.kessler@zi-mannheim.de