

howMIwork Mechanisms of change in internet- and mobile-based interventions for depression: A systematic review and meta-analysis of individual participant data

Abstract

Although the efficacy of internet- and mobile-based interventions (IMIs) for common mental disorders – among them depression and anxiety – is well established, knowledge on the active ingredients and specific working mechanisms in these psychotherapeutic interventions is limited. Thus, the primary aim of the current project is to identify and evaluate the mediators and mechanisms of change in IMIs for depression and derive evidence-based recommendations for intervention development, research and clinical practice.

The core part of this project will be a meta-analysis of individual participant data (IPD-MA). In a first step, we intend to identify and methodologically assess all relevant (published and unpublished) randomized controlled trials, which have evaluated mediators and mechanisms of change in IMIs for depression so far. Thereafter, all datasets of eligible primary studies should be gathered and homogenized. Mediation analyses in this pooled dataset of individual participant data will offer substantially more statistical power and allow for fine-

grained analyses. Further advantages of this IPD-MA-approach are in the possibility 1) to include also unpublished data, 2) to impute missing data on an individual level and 3) to harmonize mediator variables and measurement points more coherently compared to conventional meta-analytical approaches. As such, this rather novel approach of IPD-MA is currently considered as the gold-standard in evidence-synthesis.

Beyond this IPD-MA, we intend to resort to other methods of psychotherapy process research in order to disentangle the mechanisms of change in other mental disorders and populations, contributing to the evidence-base on the active ingredients and (digital) factors in psychotherapeutic interventions.

Principal Investigators

Prof. Dr. Harald Baumeister (PI),
Prof. Dr. Pim Cuijpers¹ (Co-PI)

Research Team

Matthias Domhardt, Eirini Karyotaki,¹
Dr. Claudia Buntrock,² Prof. (Assoc.) Dr. David
Daniel Ebert¹

Project Partners

¹Department of Clinical Psychology, Vrije Universiteit
Amsterdam
²Department of Clinical Psychology and Psychotherapy,
Friedrich-Alexander Universität Erlangen-Nürnberg

Funding

German Ministry of Education and Research
(BMBF)

Project Duration and Grant

Duration: 30 months (2019 – 2021)
Grant sum and grant identification: 206.116,00
€, FKZ 01KG1802

Publications

<https://www.uni-ulm.de/en/in/psy-klips/publications/>

Department Clinical Psychology and Psychotherapy, Ulm University