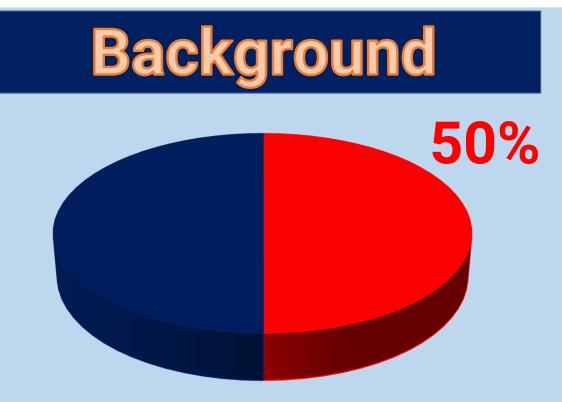
Feasibility of an exercise augmentation of cognitive behavior therapy

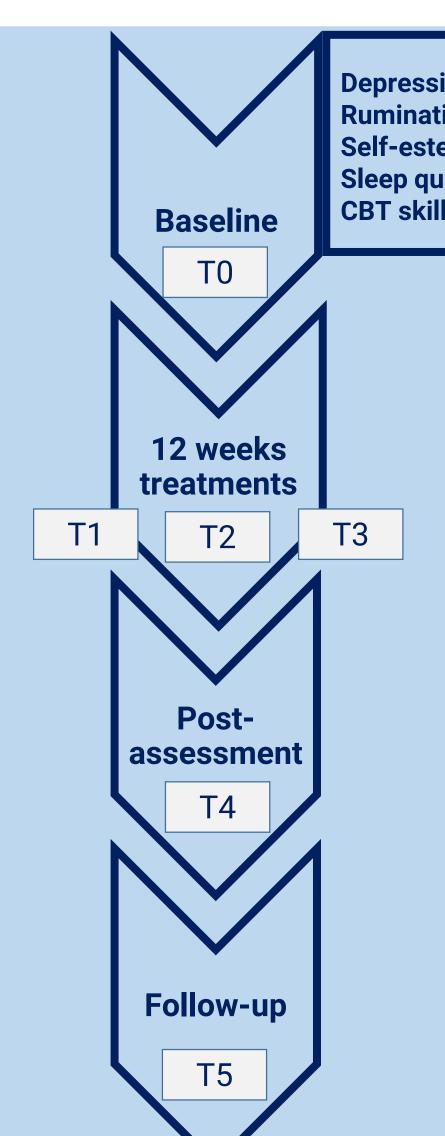
Michèle Schmitter, Mikael Rubin, Miriam van den Berg, Sofie Reijnen, Elianne de Ruiter-Blijdorp, Jasper Smits, Jan Spijker, & Janna N. Vrijsen

m.schmitter@propersona.nl



Major depressive disorder (MDD) is a leading cause of disability worldwide. Despite the variety of evidence-based treatments for MDD, around 50% of patients do not respond to treatment yet. Hence, there is an urgent need to improve outcomes which may be achieved by enhancing existing therapies such as cognitive behavior therapy (CBT) with adjunct exercise treatment (CBT+exercise).

This study presents the feasibility of an adjunct exercise treatment and its effectiveness.



Depressive symptoms (BDI-II) Rumination (RRS) Self-esteem (RSES) Sleep quality (PSQI) CBT skills (SoCT)

Method N = 33 patients with MDD

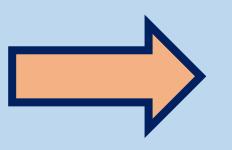
CBT+exercise

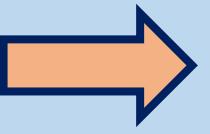


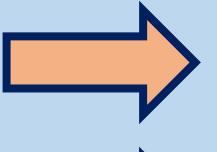
- Same CBT treatment
- Exercise once per week right before CBT session + 2 home sessions
- Running or indoor cycling on moderate intensity
- Delivered by psychomotor therapist
- Group CBT treatment
- at least 16 weeks
- One or two sessions per week
- Topics: the biopsychosocial model, social skills, introduction to and extended cognitive therapy

Feasibility

- **Retention is not significantly different** between conditions
- The majority (> 65%) of eligible patients participates in the study
- **Exercise participation is according to** guidelines (NICE, 2009)







Results

Independent-samples t-test revealed no group difference on retention rates, t(28) = 0.042, p = .967

48 % of all eligible patients participated

The CBT+exercise condition exercised on average 1.35 times per week at home and 7.5 times under supervision of a psychomotor therapist, within a timeframe of twelve weeks, with 72% of sessions on moderate or vigorous intensity, and 28% on low intensity

Depressive symptoms 40 35 30 25 20 15 10 5 0 T₀ **T1 T2 T5 T4 Exercise** -Control

The CBT and CBT+exercise conditions equally improved in depressive symptoms. Similar results were found for rumination and self-esteem. Both groups did not significantly improve in sleep quality and CBT skills.

Conclusion

The present study showed that receiving CBT+exercise treatment seems feasible, although participation was lower than expected. Trends on the BDI-II show that the **CBT+exercise condition improved more in depressive** symptoms than the CBT condition, which did not reach statistical significance due to the small sample size. Considering that exercise treatment is fully covered by Dutch insurances, improves physical health and does not worsen depressive symptoms, clinicians should think more often of exercise prescription in clinical practice.

> Stay updated on adjunct exercise treatment? Check out the website www.sportenversterkt.nl Sporten

> > Radboud University

