

**Mieli voi
kuntoutua
kehon kautta**

-

**Liikunnallinen
kuntoutus
mielenterveyden
ongelmissa**

Juho Korpi

TtM, fysioterapeutti



Työterveyshuolto
202 000

Erikois-
sairaanhoido
88 000

Opiskelu-
terveydenhuolto
34 000

Perusterveyden-
huolto 210 000

Kouluterveyden-
huolto 15 000

Kelan kuntoutus-
psykoterapia 63 000

**Vähintään joka viides suomalainen
kokee mielenterveyden ongelman**

Tarvitaan uusia ratkaisuja



Liikunnallinen kuntoutus



Mielenterveys-
palvelut

- Suunniteltu
- Tarkoituksellinen
- Toistuva
- Tavoitteellinen



- Pienentää toimintarajoitteita
- Toimii sairauden (oma)hoitona
- Ohjattua tai ohjeiden mukaan suoritettua (ft tai liikunnanohj,)
- Sekundaaripreventio !!!
- Ohjattu toiminta liikunta-palveluissa (ei sote-palvelua !)

- Lihasien työskentely
- Energiaa kuluu
- Liikettä syntyy

- Terveyttä ja/tai hyvinvointia edistävää tai ylläpitävää


- Palauttaa tai ylläpitää toimintakykyä
- Kuntoutusta (sote-palvelu)
- Ohjattua tai ohjeiden mukaan suoritettua (fysioterapeutti)

Liikunnallinen kuntoutus



- Tehokas keino kuntoutua masennuksesta & ahdistuksesta
- Parantaa hoitotulosta, kun yhdistetään muuhun mielenterveystyöhön
- Vaatii terveydenhuollon ammattilaisen ohjauksen ollakseen tehokasta

- Ehkäisee masennusta
- Ehkäisee synnytyksen jälkeistä masennusta
- Ehkäisee lasten ja nuorten mielenterveyden ongelmia
- Vähentää masennusta somaattisten sairauksien yhteydessä



Joka toinen
hyöttyy.



Exercise for depression

Gary M Cooney, Kerry Dwan, Carolyn A Greig, Debbie A Lawlor, Jane Rimer, Fiona R Waugh,

✉ [Gillian E Mead](#) Authors' declarations of interest

Version published: 12 September 2013 [Version history](#)



<https://doi.org/10.1002/14651858.CD004366.pub6> 

Authors' conclusions

Exercise is moderately more effective than a control intervention for reducing symptoms of depression, but analysis of methodologically robust trials only shows a smaller effect in favour of exercise. When compared to psychological or pharmacological therapies, exercise appears to be no more effective, though this conclusion is based on a few small trials.



Honey, I shrunk the pooled SMD! Guide to critical appraisal of systematic reviews and meta-analyses using the Cochrane review on exercise for depression as example



Panteleimon Ekkekakis  

Highlights


- Evidence of exercise effects on depression is enveloped in confusion and controversy.
- Cochrane review on exercise for depression is extensively cited evidence synthesis.
- Scrutiny of methods reveals problems, including inclusion-exclusion criteria.
- Reanalysis with rational modifications shows large effect of exercise on depression.



Exercise as a treatment for depression: A meta-analysis adjusting for publication bias

Felipe B. Schuch ^{a b}  , Davy Vancampfort ^{c d}, Justin Richards ^e, Simon Rosenbaum ^f, Philip B. Ward ^f, Brendon Stubbs ^{g h}

Show more 

 Add to Mendeley  Share  Cite

<https://doi.org/10.1016/j.jpsychires.2016.02.023> ↗

[Get rights and content](#) ↗

trim and fill and fail-safe n analyses were conducted. Twenty-five RCTs were included comparing exercise versus control comparison groups, including 9 examining participants with MDD. Overall, exercise had a large and significant effect on depression (SMD adjusted for publication bias = 1.11 (95% CI 0.79-1.43)) with a fail-safe number of 1057. Most adjusted analyses suggested publication bias led to an underestimated SMD. Larger effects were found for interventions in MDD, utilising aerobic exercise, at moderate and vigorous intensities, in a supervised and unsupervised format. In MDD, larger effects were found for moderate intensity, aerobic exercise, and interventions supervised by exercise professionals. Exercise has a large and significant antidepressant effect in people with depression (including MDD). Previous meta-analyses may have underestimated the benefits of exercise due to publication bias. Our data strongly support the claim that exercise is an evidence-based treatment for depression.



Review > Sports Med. 2016 May;46(5):699-713. doi: 10.1007/s40279-015-0441-5.

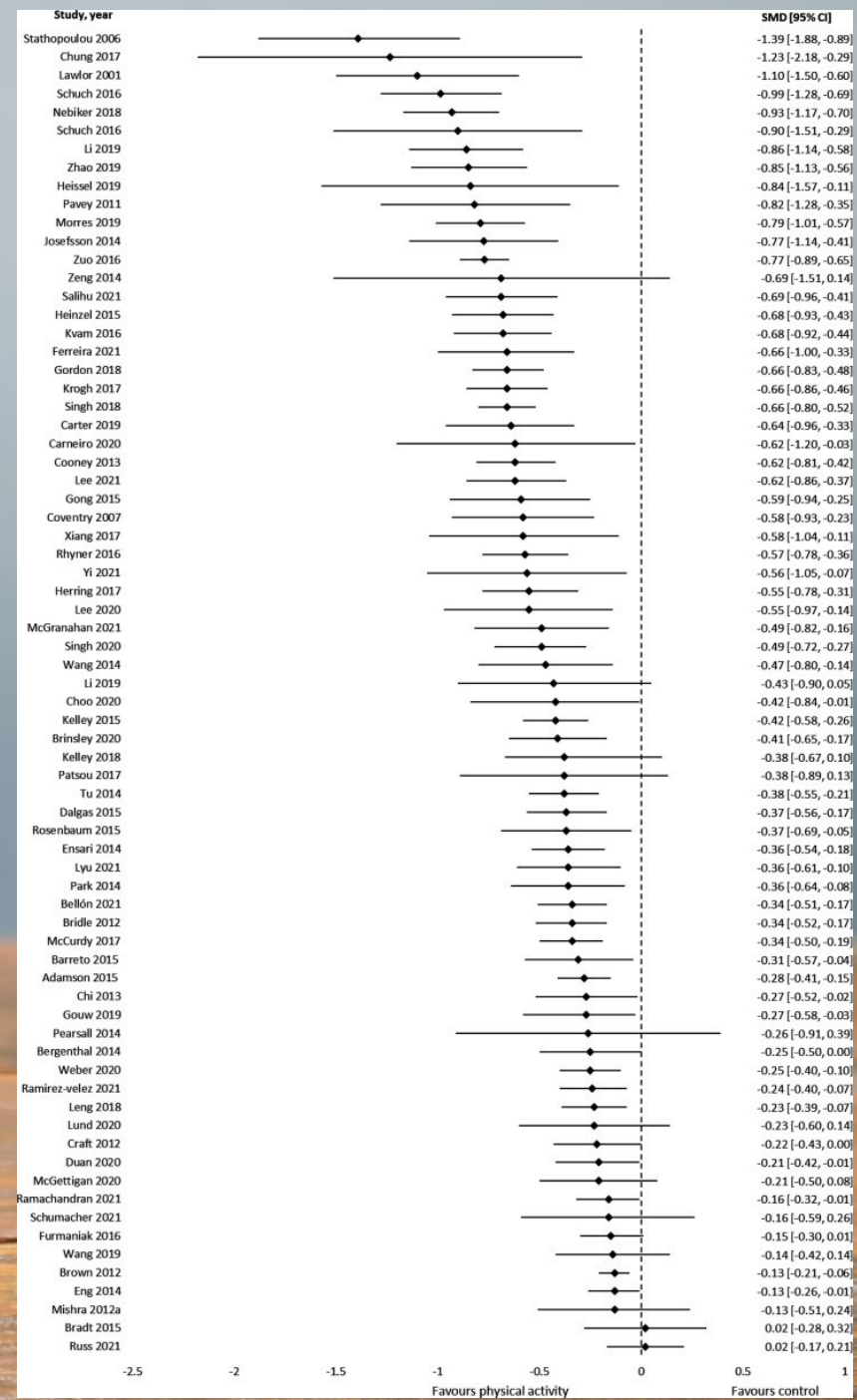
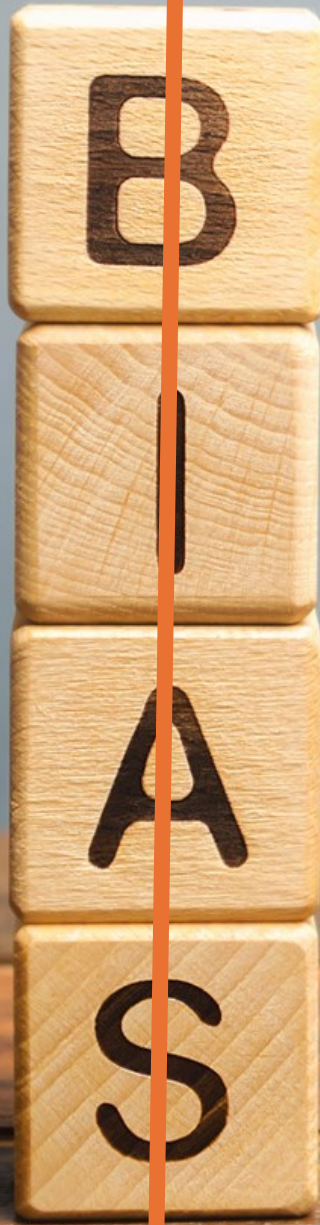
Challenges Establishing the Efficacy of Exercise as an Antidepressant Treatment: A Systematic Review and Meta-Analysis of Control Group Responses in Exercise Randomised Controlled Trials

Brendon Stubbs^{1 2}, Davy Vancampfort^{3 4}, Simon Rosenbaum⁵, Philip B Ward⁵, Justin Richards⁶, Michael Ussher⁷, Felipe B Schuch^{8 9}

Affiliations + expand

PMID: 26707338 DOI: 10.1007/s40279-015-0441-5

Conclusion: In order to demonstrate effectiveness, exercise has to overcome a powerful CGR of approximately double that reported for antidepressant RCTS.



Singh et al. 2023

Millainen harjoittelu?

- Kohtuukuormitteinen tai raskas kestävyysliikunta
- Lyhyet interventiot saattavat olla tehokkaampia kuin pitkät
- Yhdistelmäharjoittelu ei yhtä tehokasta kuin kestävyysharjoittelu
- Yksilö- ja ryhmämuotoinen harjoittelu lähes yhtä tehokkaita



Effect of exercise for depression

A systematic review and network meta-analysis of randomised controlled trials

Summary



For treating depression, various exercise modalities are well tolerated and effective, particularly walking or jogging, yoga, and strength training. Effects were comparable to psychotherapy and pharmacotherapy. Exercise worked better when more intense

Population

14 170 participants

Participants with depression (ie, meeting clinical thresholds or diagnosed by a clinician)

No other exclusion criteria, so participants are from any age, and with any comorbidities

Study design

218 studies | 495 unique arms

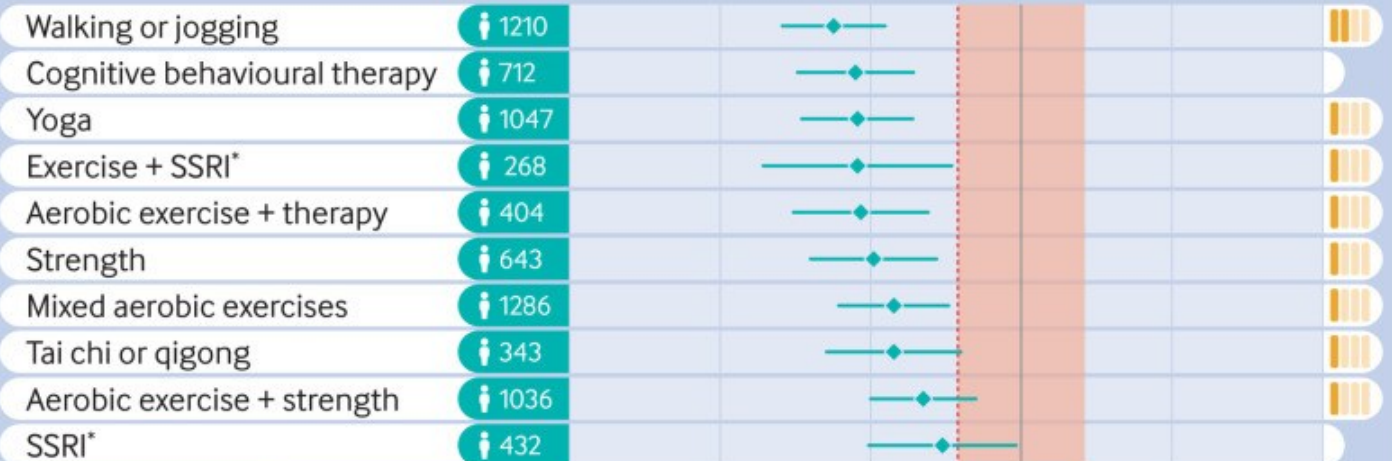
Comparison

Different forms of exercise compared with other common treatments for depression. All results are presented as 'compared with active controls.'



Outcomes

Network meta-analysis, standardised mean difference 95% CrI



Certainty rating

Low
Very low

--- Clinically important benefit

Equivalent to active control

* Selective serotonin reuptake inhibitor

<https://bit.ly/BMJ-exedep>



Strength training has antidepressant effects in people with depression or depressive symptoms but no other severe diseases: A systematic review with meta-analysis

Fabricio Eduardo Rossi^a, Gustavo Gusmão dos Santos^b, Priscila Almeida Queiroz Rossi^c,
Brendon Stubbs^d, Felipe Barreto Schuch^{e,f,g}, Lucas Melo Neves^{b,h,i,*}

Subgroup meta-analysis of studies considering moderators for the antidepressant effects of Strength training in people with depression or depressive symptoms.

Analysis	Subgroup	Number of studies	SMD	95 %CI		P-value
Main analysis	–	29	–0.51	–0.72	–0.30	<0.001
Duration of intervention	<12 weeks	10	–0.86	–1.38	–0.34	0.001
	≥12 weeks	19	–0.31	–0.46	–0.17	<0.001
Weekly frequency of intervention	<3 times per week	15	–0.28	–0.46	–0.10	0.003
	≥3 times per week	14	–0.69	–1.03	–0.35	<0.001
Number of sets	<3 sets per exercise	5	–0.66	–1.45	0.14	0.10
	≥3 sets per exercise	13	–0.53	–0.83	–0.23	<0.001
Number of repetitions	<12 rep. per exercise	7	–0.80	–1.44	–0.16	0.014
	≥12 rep. per exercise	11	–0.34	–0.54	–0.13	0.001
Total work performed ^{&}	≤360 AU per week	5	–0.86	–1.76	0.03	0.06
	>360 ≤ 648 AU per week	5	–0.30	–0.54	–0.07	0.012
	>658 AU per week	4	–0.34	–0.65	–0.03	0.029

Legend: SMD, standardized mean difference; 95 %CI, 95 % confidence interval; Rep, repetitions; AU, arbitrary unit.

[&] Total work performed = calculated as the product of the weekly frequency of intervention, sets, and repetitions.

Epub 2015 Oct 29.

Dropout from exercise randomized controlled trials among people with depression: A meta-analysis and meta regression

Brendon Stubbs¹, Davy Vancampfort², Simon Rosenbaum³, Philip B Ward³, Justin Richards⁴, Andrew Soundy⁵, Nicola Veronese⁶, Marco Solmi⁷, Felipe B Schuch⁸

Affiliations + expand

PMID: 26551405 DOI: 10.1016/j.jad.2015.10.019

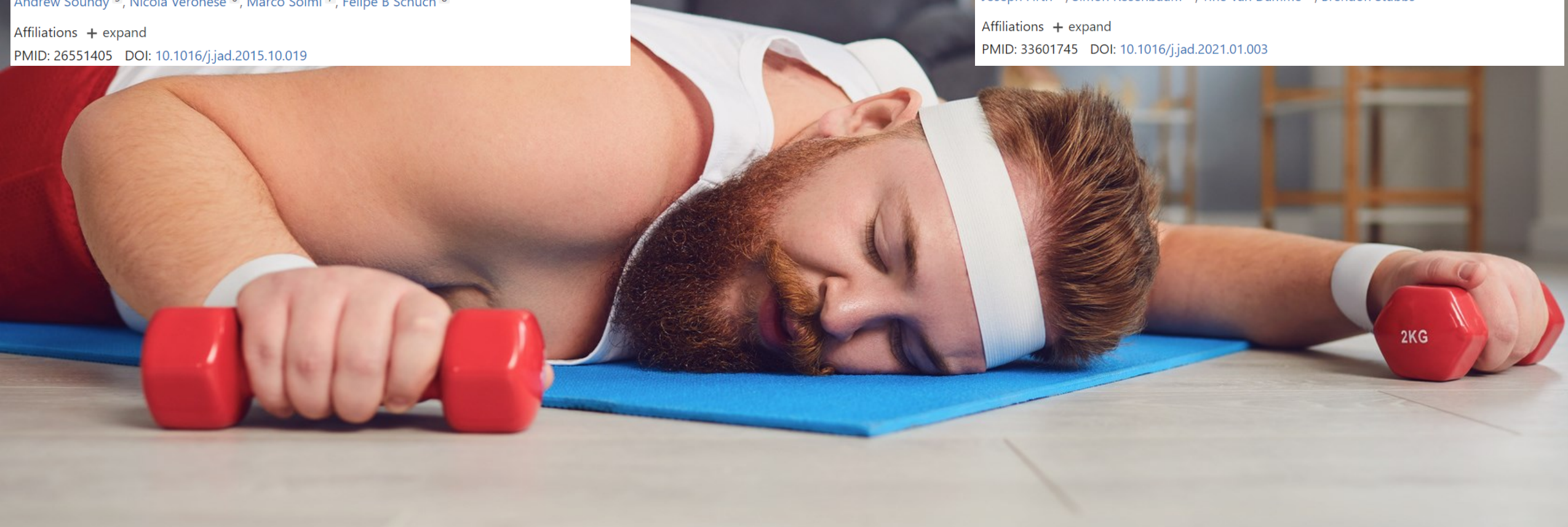
Epub 2021 Jan 6.

Dropout from exercise randomized controlled trials among people with anxiety and stress-related disorders: A meta-analysis and meta-regression

Davy Vancampfort¹, Carlos Pelayo Ramos Sánchez², Mats Hallgren³, Felipe Schuch⁴, Joseph Firth⁵, Simon Rosenbaum⁶, Tine Van Damme⁷, Brendon Stubbs⁸

Affiliations + expand

PMID: 33601745 DOI: 10.1016/j.jad.2021.01.003



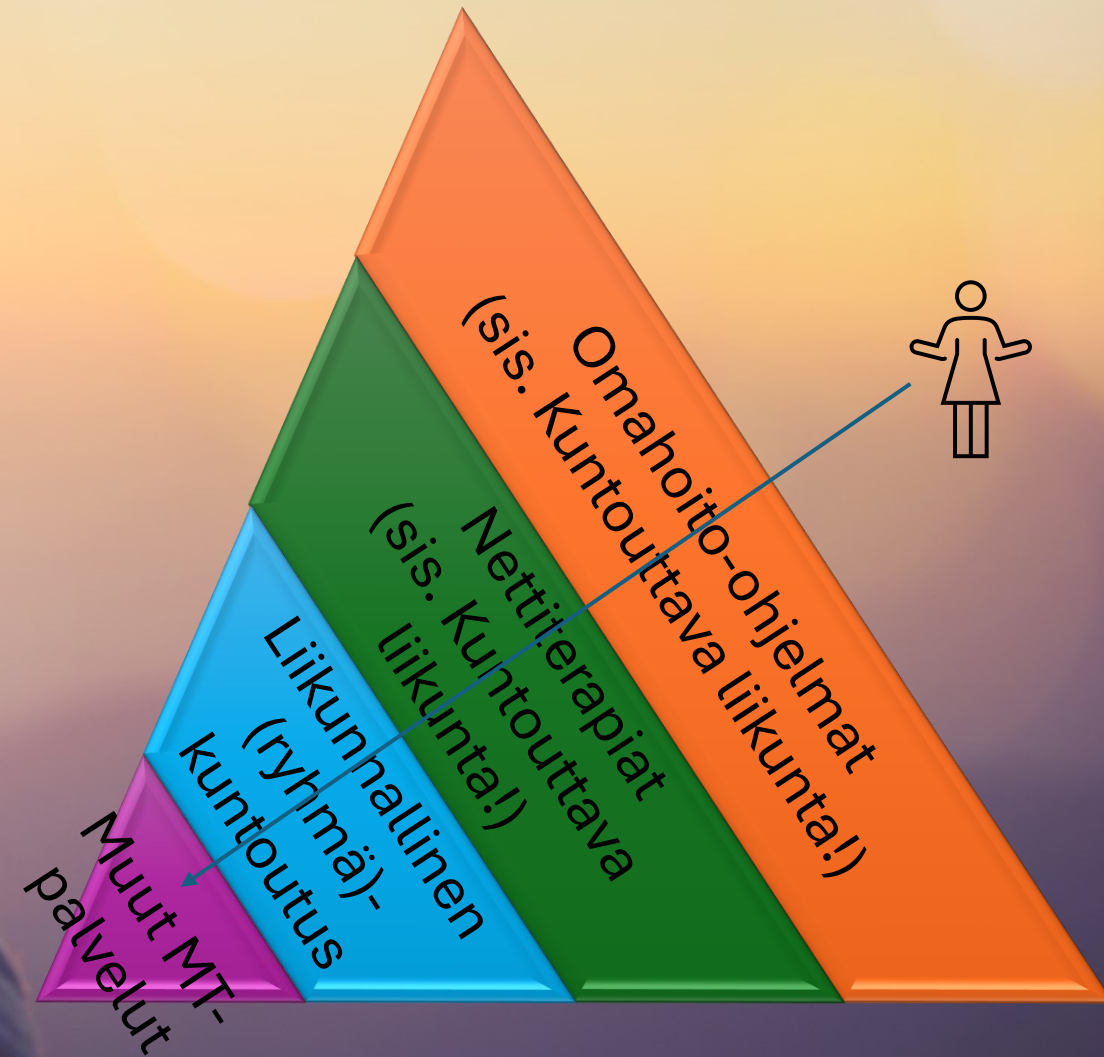
Conclusions: Exercise is well tolerated by people with depression and drop out in RCT's is lower than control conditions. Thus, exercise is a feasible treatment, in particular when delivered by healthcare professionals with specific training in exercise prescription.

Conclusions: . Exercise is well tolerated by people with anxiety and stress-related disorders and drop out in RCT's is comparable to control conditions. Thus, exercise is a feasible treatment, in particular when autonomous motivation strategies are included and when the intervention is delivered by healthcare professionals with expertise in exercise prescription.

Kustannus-
vaikuttavuus ?



Minkä pitäisi muuttua?



Kirjallisuus

KIITOS!

- (1) Avohilmo: Perusterveydenhuollon avohoidon ICD-10 -käytisyyt
- (2) THL Avohilmo: Työterveyshuollon ICD-10 – käytisyyt.
- (3) THL Hilmo. Somaattinen erikoissairaanhoido
- (4) Kelan tilastotietokanta Kelasto. Kelan kuntoutuspalvelujen saajat ja kustannukset.
- (5) Iwanis G, Jokinen A, Sarlin T & Vähäkangas K. 2021. Psykologien tarvekartoitus 2021. Suomen Psykologiitto.
- (6) Toikkanen U. 2022. Minne ja kuinka paljon? Lääkärilehti 2.9.2022.
- (7) STM 8.3.2023. Pyöreä pöytä mielenterveyspalveluista: Mielenterveyden hoitoon rakennettava kansallinen porrastettu hoito- ja koulutusmalli.
- (8) Tilastokeskuksen StatFin tilastotietokanta. Työlliset ammattiryhmän (AML 2010, tasot 1-5), sukupuolen, iän ja vuoden mukaan, 2010-2020.
- (9) Heissel A, Heinen D, Brokmeier LL, Skarabis N, Kangas M, Vancampfort D, Stubbs B, Firth J, Ward PB, Rosenbaum S, Hallgren M, Schuch F. Exercise as medicine for depressive symptoms? A systematic review and meta-analysis with meta-regression. *Br J Sports Med.* 2023 Feb 1;bjssports-2022-106282. doi: 10.1136/bjssports-2022-106282. Epub ahead of print. PMID: 36731907.
- (10) Singh B, Olds T, Curtis R, Dumuid D, Virgara R, Watson A, Szeto K, O'Connor E, Ferguson T, Eglitis E, Miatke A, Simpson CE, Maher C. Effectiveness of physical activity interventions for improving depression, anxiety and distress: an overview of systematic reviews. *Br J Sports Med.* 2023 Feb 16;bjssports-2022-106195. doi: 10.1136/bjssports-2022-106195. Epub ahead of print. PMID: 36796860.
- (11) Schuch FB, Vancampfort D, Richards J, Rosenbaum S, Ward PB, Stubbs B. Exercise as a treatment for depression: A meta-analysis adjusting for publication bias. *J Psychiatr Res.* 2016 Jun;77:42-51. doi: 10.1016/j.jpsychires.2016.02.023. Epub 2016 Mar 4. PMID: 26978184.
- (12) Dishman RK, McDowell CP, Herring MP. Customary physical activity and odds of depression: a systematic review and meta-analysis of 111 prospective cohort studies. *Br J Sports Med.* 2021 Aug;55(16):926-934. doi: 10.1136/bjssports-2020-103140. Epub 2021 Jan 5. PMID: 33402345.
- (13) Lee J, Gierc M, Vila-Rodriguez F, Puterman E, Faulkner G. Efficacy of exercise combined with standard treatment for depression compared to standard treatment alone: A systematic review and meta-analysis of randomized controlled trials. *J Affect Disord.* 2021 Dec 1;295:1494-1511. doi: 10.1016/j.jad.2021.09.043. Epub 2021 Sep 17. PMID: 34565591.
- (14) Stubbs B, Vancampfort D, Rosenbaum S, Ward PB, Richards J, Soundy A, Veronese N, Solmi M, Schuch FB. Dropout from exercise randomized controlled trials among people with depression: A meta-analysis and meta regression. *J Affect Disord.* 2016 Jan 15;190:457-466. doi: 10.1016/j.jad.2015.10.019. Epub 2015 Oct 29. PMID: 26551405.
- (15) Vancampfort D, Sánchez CPR, Hallgren M, Schuch F, Firth J, Rosenbaum S, Van Damme T, Stubbs B. Dropout from exercise randomized controlled trials among people with anxiety and stress-related disorders: A meta-analysis and meta-regression. *J Affect Disord.* 2021 Mar 1;282:996-1004. doi: 10.1016/j.jad.2021.01.003. Epub 2021 Jan 6. PMID: 33601745.
- (16) Davenport MH, McCurdy AP, Mottola MF, Skow RJ, Meah VL, Poitras VJ, Jaramillo Garcia A, Gray CE, Barrowman N, Riske L, Sobierajski F, James M, Nagpal T, Marchand AA, Nuspl M, Slater LG, Barakat R, Adamo KB, Davies GA, Ruchat SM. Impact of prenatal exercise on both prenatal and postnatal anxiety and depressive symptoms: a systematic review and meta-analysis. *Br J Sports Med.* 2018 Nov;52(21):1376-1385. doi: 10.1136/bjssports-2018-099697. PMID: 30337464.
- (21) Cai C, Busch S, Wang R, Sivak A, Davenport MH. Physical activity before and during pregnancy and maternal mental health: A systematic review and meta-analysis of observational studies. *J Affect Disord.* 2022 Jul 15;309:393-403. doi: 10.1016/j.jad.2022.04.143. Epub 2022 Apr 29. PMID: 35500685.
- (22) Hoare E, Milton K, Foster C, Allender S. The associations between sedentary behaviour and mental health among adolescents: a systematic review. *Int J Behav Nutr Phys Act.* 2016 Oct 8;13(1):108. doi: 10.1186/s12966-016-0432-4. PMID: 27717387; PMCID: PMC5055671.
- (23) Schuch, F. B., Vancampfort, D., Richards, J., Rosenbaum, S., Ward, P. B., & Stubbs, B. (2016). Exercise as a treatment for depression: A meta-analysis adjusting for publication bias. *Journal of psychiatric research*, 77, 42–51. <https://doi.org/10.1016/j.jpsychires.2016.02.023>
- (24) Vancampfort D, Sánchez CPR, Hallgren M, et al. Dropout from exercise randomized controlled trials among people with anxiety and stress-related disorders: A meta-analysis and meta-regression. *J Affect Disord.* 2021;282:996-1004. doi:10.1016/j.jad.2021.01.003
- (25) Cooney GM, Dwan K, Greig CA, Lawlor DA, Rimer J, Waugh FR, McMurdoo M, Mead GE. Exercise for depression. *Cochrane Database of Systematic Reviews* 2013, Issue 9. Art. No.: CD004366. DOI: 10.1002/14651858.CD004366.pub6. Accessed 20 November 2024.
- (26) Ekkekakis, P. (2015). Honey, I shrunk the pooled SMD! Guide to critical appraisal of systematic reviews and meta-analyses using the Cochrane review on exercise for depression as example. *Mental Health and Physical Activity*, 8, 21–36. doi:10.1016/j.mhpa.2014.12.001
- (26) Noetel, Michael et al. "Effect of exercise for depression: systematic review and network meta-analysis of randomised controlled trials." *BMJ (Clinical research ed.)* vol. 384 e075847. 14 Feb. 2024, doi:10.1136/bmj-2023-075847