

## ECHO Idaho: Behavioral Health in Primary Care

Exercise and Mental Health

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Tara Whitaker has no financial relationships to disclose.

# Learning Objectives

- Review evidence for exercise as treatment for mental health conditions
- Learn tips for writing an exercise prescription
- Review motivational interviewing principles
- Get inspired to get more active!

# HHS exercise guidelines



- Adults should perform 150-300 minutes of moderate physical activity weekly
- Any increase is beneficial to health, especially for people under target range
- Evidence for health benefits of physical activity on weight gain, adiposity, bone health, even for children as young as 3
- Increasing activity in older adults helps maintain independence by reducing falls and improving cognition
- ***Physical activity reduces symptoms of depression and anxiety and improves sleep quality***

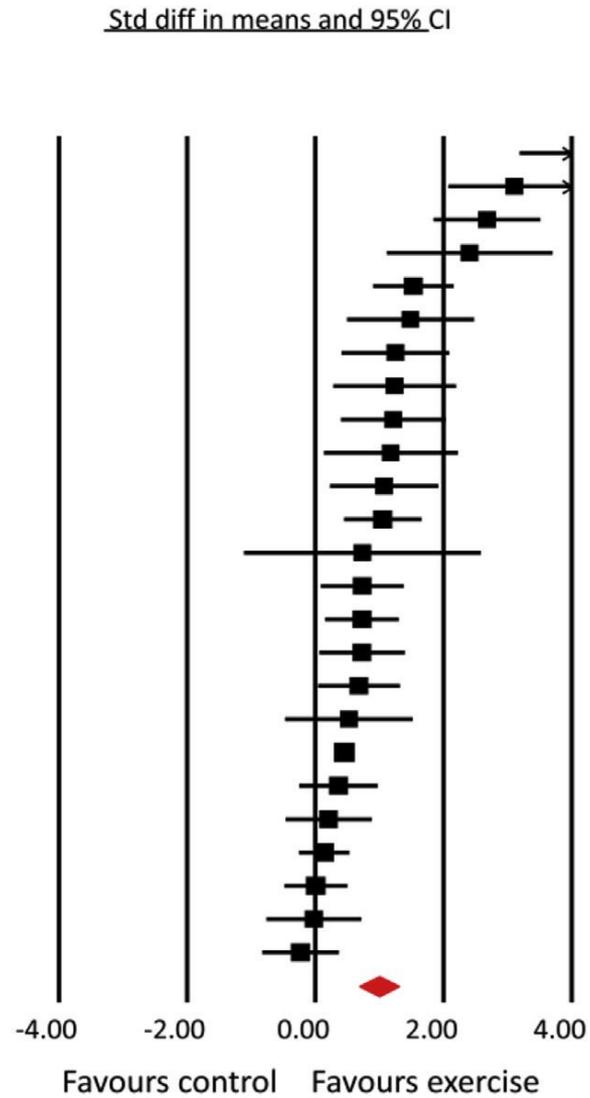
# Some is better than nothing

- Sedentary people who begin light activity reduce risk of all cause mortality, CV disease and mortality, and T2DM
- If people are below 150-300 minutes per week, even small increases in moderate-intensity physical exercise provides health benefits—No threshold that must be exceeded to achieve benefits

# Does exercise help depression?

- YES! (But of course more research is needed)
  - Meta-analysis of randomized controlled trials (Schuch, et al, 9/2015)
  - Exercise interventions vs. control conditions for diagnosed MDD or based on depression scale
  - 25 RCTs
  - Significant and large effect on depression, prior meta-analyses thought to underestimate effect
  - Supervised better than unsupervised
  - Moderate to high intensity aerobic appears best

Study name	Statistics for each study			p-Value
	Std diff in means	Lower limit	Upper limit	
Mota-pereira 2011	4.599	3.189	6.009	0.000
Singh 1997	3.105	2.075	4.135	0.000
Danielsson 2014	2.679	1.845	3.512	0.000
Mutrie 1988	2.408	1.115	3.702	0.000
Setaro 1985	1.529	0.899	2.160	0.000
Mcneil 1991	1.484	0.495	2.474	0.003
Brenes 2007	1.249	0.407	2.092	0.004
Hemat-far 2012	1.237	0.280	2.193	0.011
Pilu 2007	1.217	0.397	2.036	0.004
Epstein 1986	1.176	0.132	2.220	0.027
Doyne 1987	1.075	0.231	1.919	0.013
Nabkasorn 2005	1.052	0.449	1.655	0.001
Orth 1979	0.734	-1.112	2.581	0.436
Huang 2015	0.732	0.083	1.380	0.027
Schuch 2015	0.729	0.157	1.302	0.013
Singh 2005	0.729	0.063	1.395	0.032
Shahidi 2011	0.683	0.045	1.321	0.036
Oertel Knoechel 2014	0.525	-0.472	1.521	0.302
Hallgreen 2015	0.452	0.294	0.610	0.000
Kerling 2015	0.362	-0.248	0.973	0.245
Gary 2010	0.207	-0.464	0.878	0.546
Blumenthal 2007	0.137	-0.255	0.530	0.493
Veale 1992	0.009	-0.481	0.498	0.973
Williams 2008	-0.022	-0.761	0.717	0.953
Sims 2009	-0.230	-0.824	0.363	0.447
	0.987	0.686	1.288	0.000



Std diff in means = standardized differences in means, CI = Confidence Interval

# Does exercise help anxiety?

- Maybe
  - Meta-analysis 6 RCTs
  - Statistically significant decrease in symptoms compared to controls
  - Moderate effect size
  - Need more data

# Does exercise help other mental illnesses?

- Schizophrenia: Evidence that aerobic physical activity can reduce psychiatric symptoms, improve cognition
- Bipolar: paucity of data, concern for hypomania/mania with exercise, but unproven (more evidence for unipolar depression)
- PTSD: Some evidence of benefit

# Specific activity effects

- Yoga:
  - In MDD, yoga vs exercise and yoga vs medication had similar benefit
  - Less effective than ECT
  - Effective in perinatal period (if focus on meditation and breath control)
- Resistance training:
  - Improves anxiety symptoms in healthy participants and those with physical and mental illness
- Tai Chi:
  - studies have shown reduces anxiety in older adults with anxiety disorders who are already on medication, but conflicting data/mixed results

## Exercise in nature might be **EVEN** better

- Greater sense of wellbeing when walking in urban vs. rural setting
- Green spaces seem to promote better attention span in adults and children compared to concrete
- Nature seems to lessen the impact of stressful life events



# How do you write an exercise prescription?

- Meet patients where they are
  - Motivational interviewing as a starting place for discussing barriers, prior benefits and individual attitudes
  - Start with what people already enjoy, activity can take many forms. Focus on enjoyment, fun, social engagement
- Be specific
  - Write down specific goal after discussion
    - Start with manageable goal (starting dose)
    - Consider small walks throughout the day, parking farther from work, etc.
- Follow-up on progress
  - Ask about activity at every visit
  - Slowly push toward longer duration and higher intensity

# Motivational Interviewing for Behavior Change: 5 Principles

1. Empathy through reflective listening
2. Develop personal discrepancy between goals and current behavior
3. Avoid argument and direct confrontation
4. Adjust to resistance to change
5. Support self-efficacy and optimism

# Motivational interviewing: OARS

- Open-ended questions (how, what, tell me about)
- Affirmations (sincere)
- Reflective listening (check to confirm understanding)
- Summarize (underscore ambivalence)

# Key Points

- Exercise is a safe and effective treatment for many mental health disorders
- Secondary health benefits are vast
- Write exercise prescriptions early and often
- More research is needed into the specific type and amount of exercise that is most beneficial for mental health disorders
- Get outside for exercise when possible
- Motivational interviewing techniques are useful for behavior change

# Selected References

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- Additional references available upon request