



Effective Health Care

Non-intensive Depression Treatments

Next Steps

The nominator is interested in using a new systematic review on non-intensive depression treatments for children, adults, and pregnant women.

Due to limited program resources AHRQ will not further assess this topic at this time. However we identified 14 reviews that partially covered the nomination scope; these sources may be useful to the nominator. No further activity on this topic will be undertaken by the Effective Health Care (EHC) Program.

Topic Summary and Considerations

Topic Name and number: Non-intensive treatments for depression, #452

Date: 7/28/2017

Key questions from the nomination:

Key Question 1. What is the effectiveness of non-intensive treatments (self-management, exercise, social network activation, and brief supportive counseling) for depression?

- a. In children?
- b. In adults?
- c. In pregnant women?

Key Question 2. What is the effectiveness of non-intensive treatments compared with intensive treatments (pharmacotherapy and formal psychotherapy) for depression? Does effectiveness vary by depression severity?

- a. In children?
- b. In adults?
- c. In pregnant women?

- Depression is one of the most common mental health conditions in the US. 16.1 million adults aged 18 or older in the United States had at least one major depressive episode in the past year [1], representing 6.7% of American adults. Depression rates are higher in pregnant women, at 7.7% [3]. In 2015, an estimated 3 million adolescents aged 12 to 17 in the United States had at least one major depressive episode in the past year. This number represented 12.5% of the U.S. population aged 12 to 17 [2].
- Depression causes a persistent feeling of sadness and loss of interest in everyday activities. Symptoms of depressed mood or loss of interest is present for weeks and interferes with everyday activities. It can affect work productivity, relationships, and quality of life; and increase the risk of mortality and cardiovascular disease.
- In 2009, almost 18 million adults received treatment for depression. Medical spending to treat depression totaled \$22.8 billion in 2009. Mean annual prescription drug costs for households with an expense related to depression was \$742 per person in 2009 [4]. The cost for outpatient visits was \$991 in 2009.
- The nominator was interested in non-intensive depression treatments because of issues of cost and access for some patient. A systematic review of the effectiveness of these

treatments, and stratification by depression severity, could help inform treatment decisions by patients and their providers.

- While we are unable to further assess this topic at this time, these references may be useful to the nominator:

KQ1: Effectiveness of non-intensive treatments

- In children
 - a. Self-management: none
 - b. Exercise
 - i. Carter et al (2016) [5] Exercise showed a statistically significant moderate overall effect on depressive symptom reduction (standardized mean difference [SMD] = -0.48, 95% CI = -0.87, -0.10, $p = .01$, $I(2) = 67\%$).
 - ii. Kvam et al (2016) [6] Exercise compared to no intervention yielded a large and significant effect size ($g=-1.24$), and exercise had a moderate and significant effect compared to usual care ($g=-0.48$).
 - iii. Radovic et al (2017) [7] This analysis provides preliminary evidence that exercise is effective in reducing symptoms of depression among adolescents with clinical levels of depressive symptoms. The present meta-analysis, however, is limited by the generally low quality of included studies, high level of between-study heterogeneity and restriction of inclusion criteria to published studies.
 - c. Social networks
 - i. Rice et al [8] found inconsistent results among studies of social networking sites and depression for adolescents and young adults. The limited evidence about online social support groups was also inconsistent.
 - d. Brief psychotherapy: none
- In adults
 - a. Self-management support (SMS)
 - i. Houle et al (2013) [9]. A majority of the trials assessing depression severity changes found SMS to be superior to care as usual.
 - ii. Spijkerman et al (2015) [10] found significant, small effect of on-line mindfulness therapy on depression symptoms.
 - b. Exercise
 - i. Meekums et al (2014) [11]. The low-quality evidence from three small trials with 147 participants did not allow firm conclusions to be drawn about the effectiveness of dance movement therapy for depression
 - ii. Cooney et al (2013) [12]. 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.
 - c. Social networks
 - i. Seabrook et al (2016) [13]. Positive interactions, social support, and social connectedness on social network sites (SNSs) were consistently related to lower levels of depression and anxiety, whereas negative interaction and social comparisons on SNSs were related to higher levels of depression and anxiety. SNS use related to less loneliness and greater self-esteem and life satisfaction.
 - d. Brief psychotherapy
 - i. Nieuwsma et al (2011) [14]. This review of systematic reviews found that, compared to control, brief psychotherapies had a small but statistically significant benefit, with effect size estimates ranging from -0.33 to -0.25.

- In pregnant women
 - a. Brief psychotherapy and self-management.
 - i. O’Conner et al (2016) [3]. A systematic review in support of the USPSTF recommendation on depression screening in pregnant women examined various behavioral interventions including CBT or related interventions including stress management, goal setting, and problem solving; nondirective counseling psychodynamic therapy and targeting mother-baby interactions with the goal of increasing a mother’s responsiveness to her baby’s cues. Effect sizes in these trials appeared to be related to intervention intensity (participants who received more hours of treatment demonstrated the greatest reduction in depression symptoms). However, authors were unable to confidently attribute this to the intervention, intensity, or study characteristics or population characteristics.
 - b. Exercise
 - i. Daley et al (2015) [15] found some evidence that exercise may be effective in treating depression during pregnancy but this conclusion is based on a small number of low-moderate quality trials with significant heterogeneity and wide confidence intervals.

KQ 2: Effectiveness of non-intensive compared to intensive treatments

- Children:
 - a. Exercise. Kvam et al (2016) [6]. The effects of exercise when compared to psychological treatments or antidepressant medication were small and not significant ($g=-0.22$ and $g=-0.08$, respectively).
- Adults
 - a. Exercise. Gartlehner et al review [16] identified two trials. Neither trial found a statistically significant difference in remission rates between sertraline alone and aerobic exercise alone: 68.8 percent (sertraline) versus 60.4 percent (exercise) in the 1999 trial and 47 percent (sertraline) versus 45 percent (supervised exercise) versus 40 percent (home-based exercise) in the 2007 trial. They found no differences in treatment effects in populations with moderate or severe MDD. The confidence was low in these conclusions (low strength of evidence).
- Pregnant women: none

References

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