Does Aerobic Exercise Improve Mental Health Status of Adults with Clinical Depression?

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**Introduction**
- Depression is projected worldwide to be second only to ischemic heart disease concerning disability by the year 2020 (Rush, A., 2004)
- Depression is one of the most common forms of mental health disorder characterized by a decline of satisfaction, apathy, and low mood levels, which results in inactivity and fatigue for a continual time
- With treatment usually consisting of mental therapy and antidepressant medications, the purpose of this piece of writing is to see if aerobic exercise has a positive correlation towards the mental health of adults with clinical depression

**PICOT Question**
- Does aerobic exercise improve the mental health status of adults with clinical depression? Whereas, the patient population identified would be adults (male and/or female); the intervention of interest is the use of aerobic activity/exercise as a therapeutic component; the comparison interventions include adults who don’t apply physical activity/exercise as a therapeutic intervention; the primary desired outcome is treatment of clinical depression; and the time frame would ideally be long-term benefits.

**Method**
- Each subject had a diagnosis of depression
- Some studies had subjects already on antidepressant medications
- All studies incorporated the use of aerobic exercise and its effect on depression
- All used HAM-D scale to monitor the severity of depression, pre and post-trial of aerobic exercise

**Results**

- **Description:** Observed mean depression scores before and after treatment. All changes from pretreatment to posttreatment were statistically significant ($P < .001$ for all). The treatment groups did not differ on baseline or post-treatment levels of depression. Error bars represent SEs. HAM-D indicates Hamilton Rating Scale for Depression; BDI, Beck Depression Inventory.

**Description:**
- **Effects on the Body**
  - **Depression**
    - Increased risk of heart disease
    - Diarrhea, constipation
    - Inflammation
  - **Insomnia**
  - **Headaches**
  - **Fatigue**
  - **Chronic Pain**
  - **Weight Loss or Gain**
  - **Hair Loss**
  - **Loss of libido**

**How Can Exercise Improve Well Being**
- Self Acceptance
- Mastery
- Positive Relatedness
- Positive Emotions
- Personal Growth
- Clearer Thinking
- Increased Physical Activity
- Increased Social Activity
- Increased Self-Efficacy
- Reduced Symptoms
- Reduced Sleep Disturbance
- Reduced Chronic Pain
- Reduced Fatigue
- Reduced Self Criticism
- Reduced Negative Emotions
- Reduced Social Isolation
- Reduced Painful Emotions
- Reduced Anxiety
- Reduced Depression
- Reduced Anger
- Increased Self Esteem
- Increased Self Actualization
- Increased Positive Emotions
- Increased Resilience

**Summary**
- In summary, aerobic exercise was shown to be efficacious in addition to medications in the treatment of Major Depression Disorder (MDD) in a short time frame. However, long term studies have yet to be conducted

**Conclusions/Further Study**
- There have been many studies showing that exercise is beneficial in helping with depression symptoms, yet more needs to be done to confirm the level of effectiveness and long term benefits
- Many of the studies being assessed in this review have short time frames, small sample sizes, and short, if not nonexistent, follow up
- Regardless of these shortcomings, all studies supported exercise as a therapeutic intervention as having a positive effect on patients with depression in reducing their depressive symptoms

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