UC DAVIS HEALTH | BETTY IRENE MOORE SCHOOL OF NURSING

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Comparison of Exercise vs. Pharmacological Treatment for Symptoms of Depression in Middle to Elderly Aged Patient Populations

Introduction

- Clinical depression, mood disorder with many branches.
- Two major forms, major and persistent.
- Depressive feelings can interfere with ADL's and personal life.
- Roughly 17.3 million adults (United States) have experienced some form of depression.
- Most common underlying condition in suicide cases, is depression (30%-70%).
- Pharmacological responses have been the first line of treatment.
- Non Pharmacological treatment options are showing promising results, moving forward.

PICOT Question

Non-pharmacological treatment for symptoms of depression: How does exercise compare to prescription medications in treating symptoms of depression in middle to elderly populations?

Summary of Evidence

- Exercise is proven to be just as effective as antidepressant pharmacological treatments for reducing major depressive disorder in older adult populations.
- In exercise, pharmacological treatment, and mixed groups, there was no significant difference on baseline levels of depression - in fact, after 4 month period, the percentage of patients who no longer met the DSM-IV criteria did not differ, showing that all treatments are effective in lowering depression.
  - 32 patients (60.4%) in the exercise group, 33 (68.8%) in the medication group, and 36 (65.5%) in the combination group.
- Specifically, trends have been seen for both exercise and sertraline to be both superior to usual care (CBT) in reducing depression severity; (exercise: $p = .09$, sertraline: $p = .06$).
- Intervention groups using escitalopram and Tai Chi Chih both demonstrated improvements in severity of depression.
- A significantly higher proportion of the exercise group (55% v. 33%) experienced a greater than 30% decline in depression according to HRSD than those using antidepressant therapy.
  - 23/42 (55%) of the exercise group achieved a response, whereas in the control group only 14/43 (33%) had achieved the ≥ 30% reduction.
- Increases in the frequency of group exercise participation and daily walking time were associated with lower GDS scores, indicating decrease in depression linked to exercise.

Research Methods

- Mixture of quantitative (cognitive tests, lab values, DSM-V criteria) and qualitative (self reporting, health screenings) used to collect data.
- Randomized, controlled trials and observational methods used.
- No conceptual framework was utilized.

Implement Research to Practice

- Practice evidence-based medicine from level 1-2 sources acquired from journals or conference presentations.
- Scan level 3-5 resources and familiarize ourselves with the information available to the general public.
- Recommend easily accessible and well-written level 3-5 resources to our patience in the office.
- Adapt our patient education to that easily accessible evidence so that our patients are "partners" in the wellness journey instead of "customers."

Table 5. Five-Item Geriatric Depression Scale

1. Are you basically satisfied with your life?	Yes/No
2. Do you often get bored?	Yes/No
3. Do you often feel helpless?	Yes/No
4. Do you prefer to stay at home rather than going out and doing new things?	Yes/No
5. Do you feel pretty worthless the way you are now?	Yes/No

Conclusions/Further Study

- Evidence suggests positive results for using exercise as a treatment.
- More research is needed as it pertains to our group of study.
- Well designed studies, with robust assessment criteria; could lead to more confidence in non-pharm options moving forward.

Acknowledgements & References

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