



**USING PHYSICAL EXERCISE TO PREVENT AND SUPPLEMENT
DEPRESSION TREATMENT IN ADOLESCENTS**

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THIS PROJECT IS IN PARTIAL FULFILLMENT OF THE DEGREE
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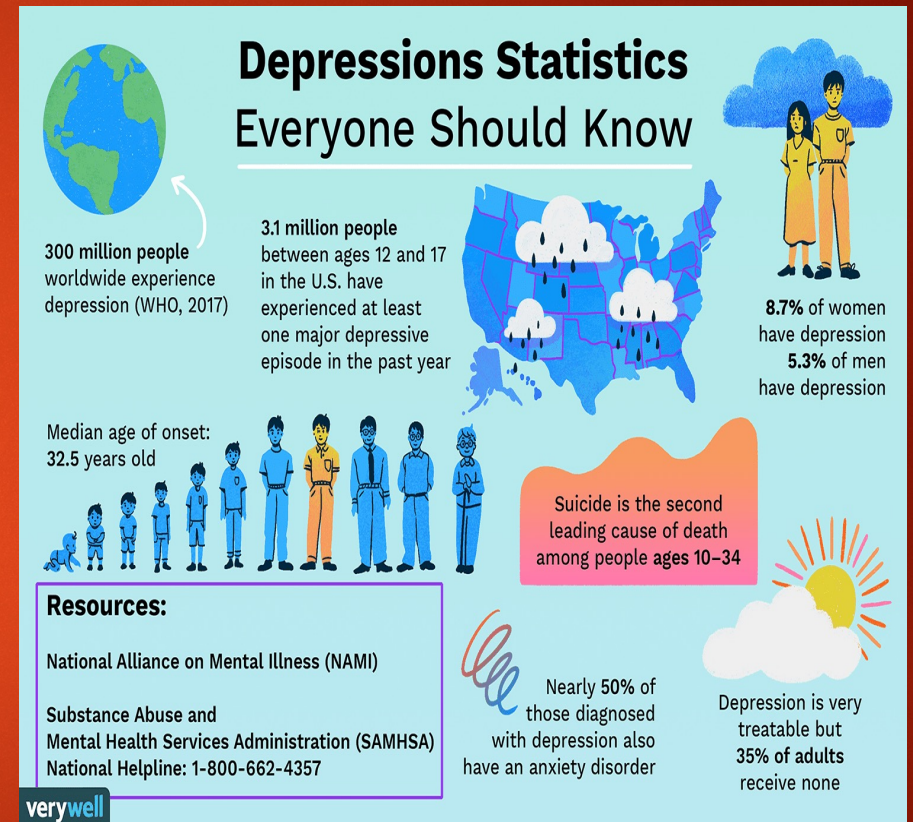
PROBLEM

- Depression is a chronic and deadly mental health complication affecting adolescents.
- Depressed patients experience apathy, low mood levels, and fatigue.
- Depressed patients lack adequate treatment to address symptoms.
- Physical exercises reduce stress, enhance memory, help with sleep, and elevate mood among depressed persons.



BACKGROUND

- In 2020, global rate of depression among children rose from 11.6% to 12.9%.
- Adolescents experience depression due to daily activities disruptions, uncertainty, and concerns about family members' wellbeing.
- Abuse, poverty, and violence increase risk of depression.
- Depression adolescents have poor performance, interpersonal relations, and communication with siblings.
- Enhancing their socio-emotional learning, access to mental healthcare, and educating them on complementary care reduce risks of depression.



PROBLEM STATEMENT

- Even though depression affects teenagers, adolescent psychiatric illnesses have been ignored.
- Nearly 20% of young individuals exhibited signs of depression that may persist into adulthood.
- A lack of physical activity increase in depressive symptoms among adolescents.
- Using physical activities to alleviate depression is becoming more popular.

CLINICAL QUESTION

- The PICOT:
- P - Providers caring for adolescent patients diagnosed with depression.
- I - Implementation of an education module that focuses on exercise to support and encourage providers to utilize.
- C - Compared to using other treatment modalities
- O – Improved provider compliance on physical exercise education with adolescents diagnosed with depression
- T – In a 4-week timeframe

PROJECT AIMS

- Assess participant knowledge of utilizing exercise to treat adolescent patients with depression with a pre and post-test asking questions about the importance of exercises for treating depressed adolescents.
- To educate all healthcare providers about different types of evidence-based physical exercises essential in treating depression in addition to current treatment, effectively in adolescents within four weeks.
- Within a 4-week time frame, 50% of providers will educate patients on the evidence-based exercises taught in the education seminar, as evidenced by the chart review.

PROJECT OBJECTIVES

- To improve compliance with the national standards for care and health outcomes among adolescents with depression pertaining to treatment of evidence-based non-pharmacological methods within four weeks.
- Create an educational tool of appropriate exercises for providers to educate adolescents diagnosed with depression.
- Ensure provider compliance by educating adolescents diagnosed with depression on regular exercise.

METHODOLOGY: PROJECT SETTING

- Project completed in an underserved community Clinic in California.
- The community clinic operates from Monday to Saturday between 9 am and 6 pm.
- Clinic offers family practice, mental health, and eye care services.
- The clinic serves over 1,000 patients a week.
- Clinic has nurses, managers, assistant managers, clinical managers, billing experts, and information technologists.

METHODOLOGY: PROJECT POPULATION

- Healthcare practitioners will be the direct population of interest.
- Population will involve mental health nurses, Registered Nurses (RNs), psychiatrists, and DNPs.
- Adolescents will be the indirect population of interest.
- Population will include adolescents aged between 12 and 17 years with depression or increased risks.
- Population must be from Los Angeles, California.

METHODOLOGY: INTERVENTIONS

- An education seminar.
- Educational seminar includes information about physical activities and exercises, the impact of physical practices on depression management, and the recommended physical exercise programs and time.
- Participants receive pamphlets with the information.
- Specialists and non-specialists provide comprehensive education to health workers.

METHODOLOGY: HUMAN SUBJECTS PROTECTION

- Use of direct-areas storage method to protect subjects' information.
- Use of strong passwords to restrict people from accessing subjects' information.
- Recruit only participants who volunteer to participate in the project.

RESULTS

- Analysis showed a significant increase from pre- to post-test, $Z = -4.231, p < .001$.
- Statistically significant change in providers' attitudes pre- to post-educational sessions.
- Significant increase from pre- to post-test, $Z = -2.619, p < .001$.
- Questions 1, 3, 4, and 6 in the questionnaire did not pertain directly to the research questions in the study.

APPENDIX H: Data Results Analysis

Test Performed	Description	Test value	Sig.
Wilcoxon Signed Ranks	Change in response to Questionnaire item 2 (belief in effectiveness) from week one to week five	-4.231	<.001
Wilcoxon Signed Ranks	Change in response to Questionnaire item 5 (would you recommend) from week one to week five	-2.619	.009
<u>McNemar Test</u>	Change in rates for recommending evidence-based physical activities for adolescent depression (week two to week five).		.008

Hypothesis tests performed in the study. Note: McNemar's test does not produce a statistical value in SPSS.

RESULTS: PROJECT'S SIGNIFICANCE

- Project improved providers' and patients' knowledge of evidence-based physical activities required for depression management.
- Project influenced teamwork and inter-professional collaboration among providers and patients.
- Project will positively influence nursing policies to prioritize applying evidence-based physical activities in treating depression among adolescents

CONCLUSION

- Project assessed participant knowledge of utilizing exercise to treat adolescent patients with depression.
- Project educated healthcare providers about different types of evidence-based physical exercises needed in depression management.
- project is sustainable as the clinic Director approved sharing the created educational pamphlet.
- DNP lead intends to create a poster and present the project outcomes to different stakeholders.
- Project will influence other providers to research or apply the identified evidence-based physical activities in managing depression.

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