THE RELATIONSHIP BETWEEN EXERCISE AND MENTAL HEALTH IN COLLEGE STUDENTS

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Introduction

Depression, anxiety, and suicide are increasing on college campuses and continue to be two of the most common health problems that university students experience. In addition to rising anxiety and depression, college students are not getting enough physical activity to ensure health benefits. Forty to fifty percent of college students do not meet current recommended exercise guidelines. Low levels of activity are associated with risk for major health conditions, including psychological problems. Lack of moderate-intensity exercise activity has revealed mental health benefits for exercise participants, in comparison to other forms of activity, including resistance training.

Rationale

Finding alternative, cost-effective, and easily implemented solutions to those suffering from anxiety and depressive symptoms was inspiration for this study as well as a lack of research conducted on this topic with the college student population. Most of the research done with the connection between mental health and exercise have been conducted with older adult populations or the general public. This study extends results from previous studies with older populations. Concerns on college campuses, faculty and staff, as well as exercise professionals and anyone working with college students can benefit from the findings of this research study.

Research questions

1. Will participants vary in their self-reported ratings of anxiety and depression before and after the completion of an exercise program?
2. Will participants’ attitudes toward exercise and readiness to change occur during the course of the study?
3. How much physical change will occur in this exercise program according to body fat and cardiovascular health?

Methods

The study explored changes in physical fitness and on self-reports of anxiety and depressive symptoms before and after participating in a six-week exercise program at a midwestern university.

Assessment tools that were used were the Bem’s Anxiety and Depression Inventories and the Attitudes Towards Exercise Inventory. Quantitative measures of physical fitness were assessed using the Tanki® Body Composition Analyzer, model TBF-390A-III for weight and body composition, and the Rockport walking test was used as a measure of cardiovascular fitness. Polar® heart rate monitors were used during the Rockport walk test to measure time and heart rate. Participants recorded their activity using a log throughout the study.

Population

Participants consisted of 45 students and 39 males. Ages of participants ranged from 18-36. Ninety-one (91%) were 18-22, (19%) were 23-36. 82 participants were Caucasian, 4 Asian, 5 Black, 4 participants chose not to respond, and 3 participants responded, “other,” which included 1 Israeli and 2 of mixed race.

Results

Results indicated significant differences existed between pre and post scores for the treatment group that participated in the six-week exercise program in categories of anxiety, depression, attitudes/behaviors that exercise can improve mental health, and V02 max scores. Non-significant differences were found between pre and post data in the measures of body composition and BMI for the treatment group. In the control group no significant differences were noted in anxiety, depression, attitudes/behaviors that exercise can improve mental health, V02 max, or BMI.

Discussion

Currently, researchers, exercise professionals, and others working with the college population have a valuable and influential opportunity to instill knowledge, skills, and positive beliefs about health in a crucial time of student’s development when they are at prime risk for anxiety and depression. Results of this study can help inform professionals that exercise may serve as an additional tool in helping to minimize the effects of anxiety or depression affecting students, while providing additional positive health benefits to the student population.

Limitations

Limitations may exist in the generalization of the findings of this study because of the convenience sampling method and the short duration of intervention. Future longitudinal research to assess changes over time may prove beneficial to further inform the body of research on this topic. Another consideration is that anxiety and depression may fluctuate in certain times throughout the semester or when the instruments were administered.

References

[References provided for the study, including statistical data and methodology details.]

North Dakota State University

College of Human Development and Education