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Title

Pilot Feasibility Study of a Play-Based Physical Activity Intervention for Patients Experiencing Psychological Distress

Priority 1 (Research Category)

Behavioral, psychosocial, and mental illness

Presenters

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Abstract

Context: Physical activity (PA) has demonstrated efficacy in ameliorating symptoms of depression among affected individuals, but barriers to PA are prominent. Our study team previously developed a social play-based program (PlayFit) targeting the specific barrier of PA enjoyment in the general population. Despite PlayFit's promising results in improving PA enjoyment and adherence, it remains unknown whether such a program is feasible or impactful for inactive patients experiencing depression. Objective: To evaluate the feasibility and preliminary impact of PlayFit among patients with active depression symptoms. Study Design: Clinical trial. Setting: Participants (N=11, 72.7% female, age range: 26-70 yrs) were recruited from the primary care patient pool associated with Penn State Health. Population Studied: Eligibility criteria: adult, treated for depression in previous 12 months, active symptoms of depression, healthy enough for exercise, sedentary, no active suicidal ideation, no history of schizophrenia, psychosis, or bipolar disorder. Intervention: Participants were offered 8-weeks of outdoor sessions, 3-days per week. Sessions included a 5-minute warm-up period, followed by instructor-led game periods where participants played a variety of popular team sports modified to emphasize safety and enjoyment. Outcome Measures: Program adherence (attendance), satisfaction, minutes of moderate-to vigorous-intensity physical activity (MVPA), perceived stress (PSS-10), anxiety (GAD-7), and depression (PHQ-9). Results: Participants attended 7.4 ± 5.0 of the 18 sessions offered. Participants accrued between 12.6 ± 4.4 to 20.3 ± 8.4 minutes of MVPA (out of 40 total min). Program enjoyment was significantly different from overall physical activity enjoyment at week-4 ($p = .003$, $d = 1.173$). Average satisfaction rating was 8.6/10. Perceived stress, $F(2, 10) = 8.193$, $p = .022$, partial $\eta^2 = .621$, anxiety, $F(2, 12) = 7.468$, $p = .015$, partial $\eta^2 = .555$., and depression, $F(2, 10) = 10.934$, $p = .014$, partial $\eta^2 = .686$, significantly decreased from baseline to week-8. Conclusions: Overall, the PlayFit program was associated with high satisfaction, increased enjoyment, and improved symptoms of psychological distress. Additional modifications may be needed to improve program adherence. Though additional studies are needed, PlayFit and similar programs are potentially useful recommendations for distressed patients in primary care settings who fail to meet PA guidelines.