

Feasibility and Acceptability of the Train Your Brain Substance Use Prevention Intervention Among Adolescents

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Background: Early substance use is associated with adverse health outcomes. Adolescents with challenges with executive functions, including behavioral inhibition and working memory, are more likely to misuse substances. Thus, there is a need to improve adolescent executive functions to decrease risk for poor long-term outcomes.

Objective: This study examined the feasibility and implementation of Train Your Brain (TYB), a computer-based executive function training program, to prevent substance misuse among adolescents.

Methods: Adolescents ages 11-15 were recruited through community organizations in Detroit and Flint, Michigan. Feasibility indicators included enrollment, assessment completion, retention, and participant satisfaction. Descriptive analyses summarized implementation outcomes.

Results: A total of 55 adolescents enrolled in the study. Fifty-four participants completed baseline assessments (98.2% of enrolled), and 27 completed post-intervention assessments (49.1% of baseline completers). Among participants eligible for 3-months follow-up, 2 of 11 (18.2%) completed follow-up assessments. Participant feedback included 16 adolescent and 24 parent post-intervention satisfaction surveys, as well as 2 adolescent and 11 parent three-month satisfaction surveys. Satisfaction survey findings suggested overall intervention acceptability among adolescents and parents, although adolescent responses were more variable.

Conclusions: Findings provide preliminary evidence regarding the feasibility and acceptability of implementing the TYB intervention among adolescents in community settings. Strengths included high baseline assessment completion and overall intervention acceptability, whereas low post-intervention and three-month follow-up completion rates and mixed adolescent satisfaction responses posed challenges for evaluation. The project is ongoing, and continued recruitment and follow-up assessment completion will provide additional information regarding intervention feasibility and effectiveness.