

A Multi-faceted Approach to Improve the Health Habits of Minority and Low-income Students

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1. **Background & Significance:** In America, prevalence of overweight and obesity (OWO) for adolescents stands at 22.2%, increasing to 49.1% in adulthood. Low-income, Black Indigenous People of Color (BIPOC) communities experience higher rates of OWO. Systemic factors that create health disparities and resource access barriers have been implicated, and recently, intensified, by the COVID-19 pandemic.
2. **Purpose:** To determine the feasibility of an intervention with nutrition, exercise, and social support components for low-income BIPOC adolescents with a Body Mass Index \geq 85th percentile for age and gender.
3. **Problem:** Does the implementation of a health habits intervention positively impact health behaviors of OWO low-income BIPOC adolescents?
4. **Methods:** This IRB-approved quasi-experimental study was conducted with a quota sample of 24 high school students who met the criteria for OWO. Recruitment was multi-pronged. The program consisted of a 12-week intervention with dietitian-led nutrition education, physical activity sessions with local BIPOC community fitness leaders, and remote family sessions on nutrition, stress reduction and physical activity. The Adolescent Lifestyle Profile Revised-2 (ALPR-2) was administered pre- and post-intervention to assess participants' engagement in healthy habits.
5. **Results:** Twelve nutrition education courses and three physical activity sessions were offered. All participants attended at least two-thirds of the nutrition education sessions. Sixty percent attended all physical activity sessions. Forty percent of participants completed the ALPR-2 post-intervention, with a significant increase in the subscale of stress management. Other subscales showed positive change, but did not reach significance ($p=0.05$)
6. **Discussion:** The data suggests that students who regularly attended nutrition education sessions improved their ability to manage stress post-intervention. The supportive environment during nutrition sessions may have helped decrease participants' overall stress. This affirms the importance of good mental health as a necessary component of overall health. Despite many challenges encountered during implementation, the program is feasible, and lessons learned will improve future outcomes.