Changes in Health Behaviors of Students during Summer Break Following a Year-Long School Health Intervention

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Approximately 17% of children in the United States, 2 to 19 years of age, are obese. Additionally, 41% of children, 6 to 17 years of age, in Philadelphia are obese or overweight. School-based interventions provide impact in changing health behaviors of students. However, the lack of intervention during summer break presents the opportunity for children to revert to old behaviors. **PURPOSE:** To assess how the summer break affects the health behaviors of students in the 4th and 5th grades previously provided health intervention programming in the school setting. **METHODS:** These cross-sectional data included questionnaire responses from students in one school participating in a larger three-year school-based health intervention. The intervention included programming focused on eating right, getting fit and staying well. Health behavior questionnaires were provided to students on a biannual basis (fall and spring). The current data were collected during Year 1 (4th grade) and Year 2 (5th grade) of the intervention. Questions analyzed were: "During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?"; and "During the past 7 days, on how many days did you eat breakfast?" **RESULTS:** Baseline Year 1 physical activity response mean (± standard deviation) was 4.06 ± 2.29 days; follow up mean was 4.78 ± 2.35 days (p=0.165). Baseline Year 2 response mean decreased to 4.18 ± 2.54 days (p=0.29); Cohen's *d* effect size [95% Confidence Interval] = 0.2 [-0.25, 0.65]. Baseline Year 1 breakfast intake response mean was 5.35 ± 2.35 days; follow-up mean was 6.31 ± 1.69 days (p=0.08). Baseline Year 2 response mean was 5.29 ± 2.56 days, (p=0.08); Cohen's d= 0.42 [-.16, 1.16]. **CONCLUSION:** Summer break did not significantly affect children's physical activity (p=0.29) or breakfast intake (p=0.08) after one year of program intervention in the schools. Although statistical significance was not achieved, a small to moderate effect size was seen for changes between follow-up Year 1 to baseline Year 2 in both physical activity (Cohen's d=0.2) and breakfast intake (Cohen's d= -0.41). This shows clinical relevance to the impact of summer break on health behaviors.

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