

Apps for Nutrition and Physical Activity Education and Environmental Change in Out-of-School Time Programs

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As childhood obesity has rapidly increased over the past two decades, researchers and practitioners have sought innovative strategies to promote healthy eating and physical activity early in life. Many impactful interventions have aimed at creating environmental changes in schools and afterschool programs. While situating interventions in these settings has proven effective, the development of user-friendly tools that capitalize on new technology is limited.

We developed two websites, foodandfun.org and osnap.org, with complementary mobile apps to help promote healthy environments in out-of-school time settings. The sites' mobile applications use the iUI Web Framework and have been accessed by mobile devices such as the iPhone, iPad, and Android Smartphones. With the Food and Fun app, staff can browse over 70 activities that encourage fruits and vegetables, whole grains, water, and physical activity, while discouraging trans fats, sugary drinks, and screen time. The Out-of-School Time Nutrition and Physical Activity(OSNAP) app, offers two interactive self-assessments and tools that help staff overcome barriers to creating healthy afterschool environments. During a 6-month pilot launch, the sites were accessed by 932 unique visitors in 66 countries.

The program observation tool is a particularly useful feature, as analyses show this staff self-report measure can validly assess children's consumption of water($r=0.56, p=0.01$), snacks and sugary drinks brought in from outside the program($r=0.68, p<0.01$; $r=0.71, p<0.01$), and computer and TV/movie time($r=0.85, p<0.01$; $r=0.68, p<0.01$) compared to direct observations.

This technology brings evidence-based materials and measures to staff quickly and easily and has the promise of assisting organizations as they disseminate obesity prevention broadly for larger population impact.

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