

IMPACT OF A CHAM JAM INTERVENTION ON PHYSICAL ACTIVITY LEVELS IN BRONX ELEMANTARY SCHOOL STUDENTS

M. Reznik, P.O. Ozuah

Pediatrics, Children's Hospital at Montefiore/Albert Einstein College of Medicine, Bronx, NY, USA

Background and aims: Medical and public health authorities recommend daily school physical education (PE) as a way to combat childhood obesity. Many schools in low-income communities, such as the Bronx, NY lack PE facilities. We developed a CHAM JAM intervention and assessed its impact on increasing PA levels of students.

Methods: A cluster-randomized wait-listed controlled study at 6 Bronx elementary schools. All children from kindergarten-3rd grade participated. Students in 2 intervention schools received CHAM JAM, an audio CD consisting of 10-minute, classroom-based education-focused aerobic activities. PA was measured by a Yamax Digi-Walker pedometer, an objective and validated PA measure in children. Each subject wore a sealed pedometer during school day for 5 consecutive days at baseline and 2-months post-intervention. To account for within-cluster and within-subject correlation, hierarchical linear models were used to evaluate differences in mean number of steps between groups. Models controlled for participation in recess/PE class, seasonal and maturational effects.

Results: 2786 students participated (intervention, 1471; control, 1315). Intervention and control students were similar in age (7.1 yrs (SD 1.3) vs. 7.3 yrs (SD 1.3)). There was no significant difference between the two groups on mean number of steps taken at baseline (2801 (1183) vs. 2864 (1066), $p=0.12$). However, 2-months post, intervention group students took significantly greater mean number of steps than controls (3873 (SD 1530) vs. 3257 (SD 1286), $p=.001$).

Conclusions: The CHAM JAM intervention significantly increased PA levels in elementary school students. These results may have implications for policy change to incorporate PA in inner-city schools.