Racial/Ethnic Variations in School-Year Versus Summer Differences in Adolescent Physical Activity

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UCSD PARC Study
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Background and Rationale

- Youth obesity prevention efforts have not been effective in low-income areas and some communities of color
  - Better evidence is needed to guide tailored approaches to subgroups at highest risk of obesity
- Children and adolescents gain up to 3 times more weight/BMI in the summer than the school year
  - Summer weight gain is greater in some race/ethnic groups
- Children and adolescents are less active in the summer than the school year
  - Race/ethnic differences have not been reported
- The present study was designed to improve understanding of school-year vs summer differences in physical activity among high risk subgroups
Study Aims

- Examine physical activity and sedentary behavior among diverse subgroups of adolescents in low-income areas.

- Examine preferred activities, preferred places to be active, and psychosocial resources among diverse subgroups of adolescents in low-income areas.

- Primary comparisons across 3 dimensions:
  - Summertime versus school year
  - Race/ethnicity subgroups
  - Sex differences
Study sample

- 207 youth completed surveys twice
- 150 youth also had accelerometer data in both seasons
- All youth recruited from low-income geographic areas

Analyses compared race/ethnic groups:
- African Americans (n=56)
- American Indians (n=30)
- Asian/Pacific Islanders/Filipinos (n=21)
- Latinos (n=49)
- White, non-Hispanics (n=51)
Current and Preferred activities and places

- Current and preferred activities were similar across groups
  - Walking, exercise, running
  - Water play was highly preferred by girls

- Current and preferred places to be active
  - In and around the home were top places in almost every subgroup in both seasons
Takeaways

- Lower summer MVPA was found in all subgroups (average of 14 min/day), so summer interventions are needed for everyone
  - Interventions may need to be tailored for each subgroup
- Interventions to reduce summer screen time should be prioritized for African American adolescents
- Walking is a priority target behavior for all subgroups of low-income youth, so parks and trails can serve this need
- Community-organized walking programs within lower-income neighborhoods seem promising
  - Overcomes travel barriers and security concerns
  - Multiple stakeholders could collaborate to organize the walks
  - Could be tailored to needs and resources of each community
  - Low cost, but leaders and promotion are needed
Are adolescents less physically active in the summer? What are differences by race, ethnicity, and sex?

The Issue

Children and adolescents gain more weight in the summer than the school year. African American and Latino youth gain more weight in the summer than do youth from other racial or ethnic groups. Some studies have found that youth are less physically active in the summer, which is surprising because they are not required to sit for many hours in school during the summer. It is unknown whether this seasonal difference varies across race, ethnic, and sex subgroups. The aim of this study was to examine race/ethnic and sex differences in adolescent physical activity, sedentary behavior, and related variables, comparing the school year and summer.

Recommended actions to increase physical activity of diverse and disadvantaged adolescents in the summer

Background

Our research with 207 low-income adolescents from five racial/ethnic groups found that all adolescents, regardless of race, ethnicity, or sex, were substantially less physically active and reported more screen time in the summer than the school year. Based on those findings, the recommendations below can be undertaken by multiple stakeholders to increase physical activity in the summer and ultimately improve health. Results from the study provide direction for promoting adolescent summer time physical activity generally and for tailoring actions for specific subgroups.
Making walking safe and convenient in our neighborhoods can help teens be more active during the summer. Learn more: www.paresearchcenter.org
Youth PA and COVID-19

- It is more essential than ever for children & adolescents to meet PA guidelines during the pandemic
  - Helps manage stress
  - To maintain overall physical and mental health
  - Because PA improves immunity and inflammation if children become infected
- Closing of parks, trails, & schools creates challenges
  - During closings, staff could organize distanced neighborhood walks
  - Refer youth to online activity classes & lessons
  - Advocate for openings, managed through education, monitoring, metering of entrance to parks & trails
  - Advocate for regular & frequent “open streets” in all neighborhoods, during and after closures