

PHYSICAL ACTIVITY AND HEALTH IN CAMPS

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Camp experiences enrich children's lives. Camp is a significant context for youth development. Many people who have gone

to camp or served as camp staff know these statements are true. Although many positive anecdotes exist, efforts to systematically document the outcomes and benefits of camp are needed. Behavior changes regarding many of the intangible benefits of camp experience are complex and not always easy to measure. Nevertheless, researchers are showing the growing relationships between camp experiences and positive youth development.

Youth development focuses on supporting or promoting positive developmental processes such as competence, mastery, positive identity, resilience, caring, connection, and belonging that enhance health and well-being (Benson & Saito, 2006). Camp programs can promote positive youth development when they intentionally incorporate experiences, opportunities, and supports to address specific aspects of this development. Physical activity and health are outcomes that can be associated with camp experiences.

Physical activity is generally defined as bodily movement produced by skeletal muscles resulting in an expenditure of energy (Center for Disease Control and Prevention, 2007). Typical forums for children's physical activity include free play, school physical education-related activities, organized and non-organized sports, and human-powered transportation (Salmon & Timperio, 2007). Physical activity, however, is not always the same as exercise or physical fitness. In camps it can include games, sports, and outdoor adventures. The U.S. Department of Health and Human Services (2008) recommends 60 or more minutes of moderate-vigorous physical activity daily for children and adolescents under the age of 18.

Research Says

- The current generation of children is one of the most inactive and unhealthy in history (Ogden et al., 2006).
- The Centers for Disease Control and Prevention (CDC) reported that 62% of children aged 9- to 13-years-old did not participate in any physical activity during non-school hours and 23% engaged in no daily PA (Duke, Huhman, & Heitzler, 2003). Only 42% of children aged

6- to 11-years-old participated in at least 60 minutes of PA per day. (Troiano et al., 2008).

- Children who participate in 60 or more minutes of physical activity per day are more likely to have in leaner bodies, increased muscular strength, endurance and flexibility, healthier cardiovascular and blood lipid profiles, reduced blood pressure, development of higher peak bone masses, and greater musculoskeletal health (Powell et al., 2009; Schofield, Schofield, Hinckson, & Mummery, 2009; Strong et al., 2005).
- The greatest concern for inactive children is being overweight and obese. Obesity over the lifespan coupled with a lack of PA can result in negative health conditions including increased risk for cardiovascular disease and Type II diabetes (Hill, Wyatt, Reed, & Peters, 2003). Research shows that 40% – 70% of obese children will continue to be obese through adulthood (Jain, 2004).
- Although childhood obesity are not rising at the rate it was, 33% of 6- to 11-year-old youth were overweight or at risk for being overweight (Ogden, Carroll, & Flegal, 2008).
- Children may be more susceptible to obesity during the summer. Obese children often have lower levels of fitness and increased body fat during the summer while they are not at school. Children's Body Mass Index (BMI) often grows at a quicker rate during the summer months. Researchers have concluded that the summer break from schools may result in less structured days for children leading to less physical activity and a less healthy diet months (e.g., Carrel, Clark, Peterson, Eickhoff, & Allen, 2007; von Hippel, Powell, Douglas, & Rowland, 2007).

Camp Research about Physical Activity:

- Organized camps are a setting where little research has been conducted to explore physical activity participation (Jago & Baranowski, 2004; Welk & Schaben, 2004)
- Camps can provide healthy activities that are structured and guided for children during the summer. Positive outcomes are cultivated through a combination of using outdoor settings, guidance from trained leadership, and planned programming (Spain, Bialeschki, & Henderson, 2005).

- Structured summer opportunities such as youth summer camps can provide an opportunity for children to be physically active (Jago & Baranowski, 2004).
- Although physical activity in camps has not been substantially researched, camp professionals recognize health and physical inactivity as a pertinent issue. In a 2007 survey of 365 camp professionals, 90% of respondents rated healthy eating and physical activity for campers as important or very important emerging issues needing attention during the camp planning process (American Camp Association).
- Studies have shown that camps specifically built, designed, and staffed to improve health behaviors of obese children can be successful. The research has shown that camps with a certain threshold of intentional social relationships, environments, and programs can increase levels of physical activity participation and reduce prevalence of obesity including a decreased BMI and fat mass (Baranowski et al., 2003; Gately, Cooke, Butterly, Mackreth, & Carroll; 2000; Gately et al., 2005).
- Research conducted at traditional summer camps (i.e., camps not focused specifically on weight loss) showed that campers at resident camps took an average of almost 20,000 pedometer-recorded steps during full camp days while day campers took 12,000 steps during half camp days. These findings indicate that children at camp are getting above the recommended daily amount of physical activity (Hickerson, 2008).
- Day campers who were male, non-minority race with BMI below the 85th percentile, who had high peer group and counselor stepcounts, and were at larger and more physical activity facilities were more likely to be physically inactive. Male gender, non-minority race, BMI below the 85th percentile, high peer group stepcount, more physical activity facilities, more camp acreage, longer walking distance between programming areas, low camper-staff ratio, and intentional physical activity programming were positive correlated with physical activity in resident camps (Hickerson & Henderson, 2009).
- Individual characteristics of campers (e.g., race and gender) may have the greatest influence on camp physical activity, but the design of the social, physical, and organizational environments can also impact campers' physical activity (Hickerson, 2009).

Bottom Line

Camps can be an antidote to summer sedentary behaviors among young people. By nature, most camps provide opportunities for physical activity, but more can be done to encourage physical activity through staff training, program scheduling, and program activities at camp. More research is needed to further explore the circumstances that create the healthiest and most physically active environments for young people at camp.

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