Physical activity and health in camps

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Hickerson, B., & Henderson, K. A. (2013). Physical activity and health in camps. *American Camp Association Briefing Paper*.

Abstract:

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.

Keywords: camps | physical activity | health | children

Article:

*****Note: Full text of article below**

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 forms 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). Although the prevalence of obesity has stabilized, the incidence remains high. In 2009-2010, 17% of 2-19 year olds were obese and altogether, 32% were obese or overweight (Ogden et al., 2012).
- Only 42% of children aged 6- to 11-years-old participate in at least 60 minutes of PA per day (Troiano et al., 2008).
- Almost 42% of US male children (6-11 years) and almost 21% of female children are **sedentary** as interpreted against expected values for steps per day in childhood (Tudor-Locke et al., 2010).
- 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 et al., 2009).
- 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 et al., 2003). Research shows that 40% – 70% of obese children will continue to be obese through adulthood (Jain, 2004).
- 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 (e.g., Carrel et al., 2007; von Hippel et al., 2007).

Camp Research about Physical Activity

- Structured summer opportunities such as youth summer camps can provide an opportunity for children to be physically active. Little research, however, has been conducted regarding how organized camps can be a setting for physical activity participation (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 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, 2007).

- In a longitudinal study of 10-18 year olds, Mahoney (2011) found that adolescents with no organized summer activity plans (e.g., camp) had the greatest risk for obesity.
- Studies have shown that camps specifically built, designed, and staffed to improve health behaviors of obese children can be successful. 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 (Gately et al., 2005; Huelsing et al., 2010).).
- 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 & Henderson, 2013).
- In summer day camps, water-based physical activity, equipment, and free-play were related to increased physical activity. Children waiting-in-line for turns, staff instruction, and organized physical activity were related to increased sedentary behavior (Beets et al., 2013).
- Campers at *day camps* who had active peers and active counselors and who were at larger camps with more physical activity facilities were more likely to be physically active. Active peer groups, 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, 2010).
- 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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Recommended Citation:

Hickerson, B.D. & Henderson, K.A. (2012). *Physical activity and health in camps*. ACA Briefing Papers Series. Retrieved from http://www.acacamps.org/volunteers/care/carebriefings.