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# Physical activity locations in Georgia: Frequency of use by socio-demographic group



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#### ABSTRACT

Active outdoor recreation helps to mitigate health consequences associated with sedentary behavior. Enhanced understanding of socio-demographic differences in physical activity (PA) location preferences could therefore contribute to health promotion. This study examined frequency of use for various PA locations in Georgia, a state with historically high levels of physical inactivity and obesity. Data were collected via intercept surveys of visitors to state parks (n=761) and flea markets near the parks (n=234). According to these self-reports, homes and backyards were used most frequently for PA followed by neighborhood settings. State parks and gyms or recreation centers were used less frequently than other recreation settings. Latinos relied more on parks and less on homes/backyards for PA than others groups. African Americans and Asians used gyms or recreation centers more often than other groups. Development of built environments that promote active living should account for PA location choices across diverse communities.

#### MANAGEMENT IMPLICATIONS

Physical activity is widely recognized as key element of health promotion, yet data depicting frequency of use for PA locations and variations among demographic groups is limited. By examining the frequency of use for various PA locations across a diverse population in north Georgia, this study revealed several patterns that have implications for recreation management:

- Localized outdoor settings (e.g., homes/backyards, neighborhoods) are used more often for PA than other recreation locations (i.e., parks).
- Females use neighborhood settings more often for PA than males.
- Latinos and African Americans use parks more often for PA than Whites.
- African Americans, Asians and high income individuals use gyms and recreation centers more often for PA than other groups.
- Efforts to promote PA via outdoor recreation should consider multiple aspects of the built environment and account for a range of diverse preferences that influence site use patterns across different demographic groups.

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#### 1. Introduction

Regular participation in physical activity (PA) lowers the risk of multiple health problems including cardiovascular disease and obesity (Bauman & Craig, 2005; Ogden et al., 2006; Sofi, Capalbo, Cesari,

Abbate, & Gensini, 2008). Despite efforts to emphasize the benefits of active living, a majority of Americans fail to meet recommended PA levels (Centers for Disease Control and Prevention, 2010; Macera et al., 2005). Sedentary lifestyles and associated health problems are especially prevalent in low-income minority communities (Crespo, Smit, Anderson, Carter-Pokras, & Ainsworth, 2000; Kumanyika & Grier, 2006; Thomas, Eberly, Smith, Neaton, & Stamler, 2005). PA levels could potentially be increased by using models of health promotion that consider environmental surroundings and inter-personal factors (Bedimo-Rung, Mowen, & Cohen, 2005; Sallis et al., 2006). This approach requires an enhanced understanding of preferences regarding outdoor recreation locations where PA may occur.

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Research has shown that the proximity to recreation settings and opportunities, particularly outdoor recreation settings such as public parks, is often associated with higher levels of PA (Brownson, Baker, Housemann, Brennan, & Bacak, 2001; Giles-Corti et al., 2005; Kaczynski & Henderson, 2007). This relationship is especially strong in low-income, high-ethnic minority neighborhoods, where limited access to PA-related facilities and amenities has been identified as a key correlate of physical inactivity (Crawford et al., 2008; Diez Roux et al., 2007; Gordon-Larsen, Nelson, Page, & Popkin, 2006; Powell, Slater, Chaloupka, & Harper, 2006). Despite these patterns, few studies have directly examined individuals' choice of potential PA locations. Moreover, research exploring this topic has been inconclusive. For example, some studies have shown that neighborhood streets, homes, and fitness centers are the most frequently used PA locations (Huston, Evenson, Bors, & Gizlice, 2003), whereas others have highlighted the critical role of parks for PA (Wilhelm-Stanis, Schneider, Shinew, Chavez, & Vogel, 2008). Additional research is needed to explore the relative importance of various outdoor recreation settings to PA in diverse communities.

This study examined the frequency of use for various PA locations among different socio-demographic groups of state park visitors and flea market attendees in north Georgia, a state where only 46% of adults are regularly active (38% of African Americans, 28% of Latinos) and more than 30% of adults are categorized as obese (Georgia Department of Public Health, 2010, 2011). Specifically, this study explored the use of state parks relative to other potential PA settings in non-urban areas of north Georgia.

#### 2. Methods

Data were collected via intercept surveys at three state parks (n=761 collected in May–September 2010) and nine fleas markets (n=234 collected in March–July 2011) located 40–90 miles from downtown Atlanta, GA. Because resources were not available to implement a comprehensive population-based survey effort in this

pilot study, the different locations were purposefully selected to obtain a convenience-based sample that allowed for comparisons of PA location preferences for north Georgians who may or may not visit state parks.

These state parks contained a variety of facilities (e.g., lakes, campgrounds, hiking trails) and were intentionally chosen based on visitor composition that reflected the increasing racial/ethnic diversity of the southeastern U.S. The dates for sampling at state parks were selected based on a stratified random sampling protocol to ensure coverage across all days of the week and times of the day (Whiting, Larson, & Green, 2012). Collection efforts targeted zones with high concentrations of day use visitors such as beaches and picnic areas, accounting for a large percentage of total park visitation (separate exit surveys revealed that more than 80% of all park visitors used these sites). During the intercept, bilingual interviewers approached every visitor group and asked adults if they would be willing to participate in a brief survey (in English or Spanish). Upon consent, participants were handed one of five survey versions (one version focused on PA). The state park response rate was 91.5%.

Flea markets varied in size (15–1000 vendors), and intercept surveys in these locations provided improved access to a racially/ ethnically diverse and low-income segment of the population that is typically difficult to reach through more conventional survey methods such as mail, telephone, or internet (Dillman, 2007; Miller, Wilder, Stillman, & Beckler, 1997). The dates for sampling at flea markets were randomly distributed among weekends in the spring and summer, when attendance was typically highest. Collection efforts used an administration approach similar to the park-based protocol and focused on two groups of flea market attendees: vendors and customers. The flea market response rate was 73.7%.

The instrument included demographic characteristics such as gender, age, race/ethnicity, income, and ZIP code of permanent residence. A series of items were used to elicit how often (1="never" to 5="very often") participants used particular locations for PA. Validation of subjective ratings using self-reported PA

**Table 1**Participants of the intercept survey at state parks (2010) and flea markets (2011) compared to the total population in the study region and throughout the state of Georgia.

Demographic variable	State park sample <sup>a</sup>	Flea market sample <sup>b</sup>	Population in study region <sup>c</sup>	Population in Georgia <sup>c</sup>
Sample size	761	234	4,033,579	9,919,945
Gender				
Distribution (%)				
Female	59.1	51.3	51.0	51.1
Male	40.3	48.3	49.0	48.9
Missing	0.5	0.4		
Age (Median in years)	35.5	38.0	34.8	35.3
Race/Ethnicity Distribution (%)				
White/Caucasian	54.8	41.5	56.3	55.1
Hispanic/Latino	31.4	32.9	13	9.2
Black/African American	7.2	17.1	24.6	31.2
Asian/Other	6.2	7.3	5.9	4.1
Missing	0.4	1.3		
Est. Median Income	\$46,725	\$38,297	\$57,472	\$49,736
Income				
Distribution (%)				
Low ( < \$25 K)	18.9	30.8	Data not available	25.1
Med (\$25 K-50 K)	25	23.5		25.1
High ( > \$50,000 K)	33.6	19.2		49.8
Refused	17.5	20.9		
Missing	5	5.6		

<sup>&</sup>lt;sup>a</sup> Proportions reflect pooled sample of all visitors to all state parks across sampling periods.

<sup>&</sup>lt;sup>b</sup> Proportions reflect pooled sample of all visitors to all flea markets across sampling periods.

<sup>&</sup>lt;sup>c</sup> Estimates based on 2012 population projections from U.S. Census Bureau (United States Census Bureau, 2013). Study region included the 21 counties containing or adjacent to state parks and flea markets in north Georgia where sampling occurred.

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