Using the PARA to Evaluate Physical Activity Resource Attributes in Houston and Austin, TX

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ABSTRACT

Many adults do not achieve recommended levels of physical activity (PA), and ecologic models suggest that environmental factors such as physical activity resources (PARs) may influence PA participation. Attributes of PARs, such as accessibility, features, amenities and incivilities, are related to PA. The Physical Activity Resource Assessment (PARA) is an environmental audit tool to assess the type, size, accessibility, incivilities, amenities and features of a PAR. Using the PARA to explore how incivilities and quality of features and amenities differ by location, size or accessibility is an essential step in understanding which attributes influence PA. The purpose of this study was to compare the type, size, accessibility, incivilities and quality of features and amenities of PARs in Houston and Austin, TX and examine the differences in incivilities and quality of features and amenities of PARs by city, type, and accessibility of the resource. Using the PARA, PARs were counted and assessed in Houston (N=1322) and Austin (N=297) and categorized by type, size, and cost (a measure of accessibility). The quality of PAR features and amenities were rated (0=none, 1=poor, 2=mediocre, and 3=good); incivilities were rated using an operational classification (0=none, 1=some, 2=medium, 3=excessive). T-tests for city and ANOVAs for type, size and accessibility were used to determine group differences in features, amenities and incivilities. The most common type of resource found in Houston and Austin were schools (Houston n=453; Austin n=88), followed by parks (Houston n=386; Austin n=87). The quality of features per resource was not significantly different between Houston and Austin. The quality of amenities per resource was greater in Houston compared to Austin (t(473)=4.183, p<.001); incivilities were greater in Austin compared to Houston (t(385)=-6.909, p<.001). Significant differences were found in the quality of features (F(8,1589)=27.95, p<.001), amenities (F(8,1587)=52.14, p<.001) and incivilities (F(8,1587)=14.24, p<.001) between types of physical activity resources. Combination resources had the best features, fitness clubs had the best amenities, and trails had the greatest number of incivilities. Free PARs had better features (F(3,566)=18.481, p<.001) and better amenities than less accessible PARs (F(3,1565)=3.754, p=.011). However, free PARs had for a higher number of incivilities than pay-for-use PARs (F(3,1566)=23.720, p<.001). Quality of PARs differed by location, type, and accessibility of the resource. Findings from this study can inform improvement of PARs to increase PA among adults. Future studies should examine the influence of type, accessibility, location, size, and quality of features, amenities and incivilities on PA.