



Neighborhood satisfaction and use patterns in urban public outdoor spaces: Multidimensionality and two-way relationships



Sara Hadavi*, Rachel Kaplan

University of Michigan, School of Natural Resources and Environment, USA

ARTICLE INFO

Article history:

Received 10 September 2015
Received in revised form 13 May 2016
Accepted 26 May 2016
Available online 12 July 2016

Keywords:

Chicago
Interaction analysis
People–environment relationship
Perceived barriers
Residential
Urban outdoors

ABSTRACT

Neighborhood satisfaction and use patterns in public outdoor spaces are generally viewed as single entities, ignoring their multidimensionality as well as detailed associations between them. Such a general assessment raises questions of the kinds of neighborhood characteristics that accrue to satisfaction, and the variety of environmental affordances perceived by residents with respect to nearby outdoor settings. Given the significant role of these factors in people's life satisfaction and wellbeing, a nuanced approach is needed to help us better understand people–environment relationships and examine practical solutions for creating more livable neighborhoods. This study investigated two-way associations between four aspects of neighborhood satisfaction and three forms of use, as well as the role played by perceived barriers to neighborhood use in these associations. A random sample of 434 Chicago residents participated in a survey (mailed and on-site) with a five-point rating scale. The three major findings through generalized linear modeling include; 1) multidimensionality of both neighborhood satisfaction and use patterns as important to consider in people–environment studies, 2) the significant roles as predictors and as outcomes played by both neighborhood satisfaction and use patterns, with only one factor from each set showing a two-way relationship, and 3) the main effect of perceived barriers on three of the neighborhood satisfactions, and their interactive effect with several of the use pattern and satisfaction factors. These findings contribute to our understanding of people–environment relationships in urban public spaces and provide insights for improving neighborhood satisfaction and frequency of use of public outdoor spaces.

© 2016 Elsevier GmbH. All rights reserved.

1. Introduction

To what extent does a person's use of their nearby outdoor space affect their satisfaction with their neighborhood environment? Alternatively, to what extent does satisfaction with one's neighborhood impact how one uses it? Studies have examined these questions separately, and have provided findings that support both perspectives. Much of that literature, however, overlooks the multidimensionality of the constructs *use* and *neighborhood satisfaction*. It is also not clear how perceived barriers to use affect the associations between neighborhood satisfaction and use in urban residential areas. Given the significant role these factors play in people's life satisfaction and wellbeing (e.g., Fernandez and Kulik, 1981; Kaplan and Kaplan, 1989; Kweon et al., 2010; Ward Thompson and

Aspinall, 2011), it is worth investigating multiple aspects of satisfaction and use in detail. This study investigated different aspects of satisfaction with neighborhood outdoor settings, various types of use of such spaces, and the possible associations between these aspects in urban residential neighborhoods while controlling for perceived barriers to neighborhood use.

1.1. What does it mean to be satisfied with a neighborhood?

Research on neighborhood satisfaction has separately investigated a relatively wide range of contributing factors including socio-demographics (Sallis et al., 2009; Kweon et al., 2010), housing ownership (Basolo and Strong, 2002; Rohe et al., 2013), safety (Cook, 1988; Burby and Rohe, 1989), and physical attributes of the environment (Kaplan, 2001; Sirgy and Cornwell, 2002; Lee et al., 2008; Hur et al., 2010; Kweon et al., 2010; Hur and Nasar, 2014). While providing valuable findings, most of these studies have examined neighborhood satisfaction as a single entity such as overall satisfaction (e.g., Galster and Hesser, 1981; Hur et al., 2010; de Jong et al., 2012). Such a general assessment raises ques-

* Corresponding author at: Dana Building, 440 Church Street, Ann Arbor, MI 48109-1041, USA.

E-mail addresses: sahadavi@umich.edu (S. Hadavi), rkaplan@umich.edu (R. Kaplan).

tions of the kinds of neighborhood characteristics that accrue to satisfaction. For instance, is it satisfaction with the appearance of a neighborhood or the quality of public spaces that plays an important role? Does the amount of available green features or the activities afforded by the outdoor settings share in people's perception of neighborhood satisfaction? Disregarding the multidimensionality of neighborhood satisfaction leaves such questions unanswered. One of the risks of not knowing the answers to these questions would be inability to create or redevelop neighborhood spaces that are responsive to users' perception. This may lead to formation of outdoor spaces that do not meet residents' needs and preferences. Some studies have focused on specific aspects of satisfaction such as neighborhood appearance and attractiveness (Gruber and Shelton, 1987; Parkes et al., 2002) and neighborhood safety (Cook, 1988; Lovejoy et al., 2010). While previous research has demonstrated the multidimensionality of residential satisfaction (Amérigo and Aragones, 1997; Francescato, 2002), only a few studies have put multidimensionality of satisfaction as the center of investigation (e.g., Bonaiuto et al., 1999; Adriaanse, 2007; Fornara et al., 2010). Further, few studies can be found on multiple dimensions of neighborhood satisfaction in association with different types of outdoor use. We argue that the complexity of environmental characteristics and people's perception warrant inclusion of a wider range of satisfactions. By investigating multiple aspects of neighborhood satisfaction (satisfaction with quality of public space, amount of green features, amount of affordances and neighborhood comfort), this study offers a richer understanding of people's perception of their physical environment which may have implications for practitioners in improving neighborhood satisfaction in residential areas.

1.2. What is meant by neighborhood use?

While the use of outdoor spaces has been shown to be important with respect to its positive effects on wellbeing (Ellis et al., 2006; Ward Thompson, 2011; Ward Thompson and Aspinall, 2011), use is often investigated as a single entity. For instance, use has been investigated in terms of walking in the neighborhood (Ball et al., 2001; Humpel et al., 2004), physical activity (Bjork et al., 2008), park use (Tinsley et al., 2002), social activity (Hur and Morrow-Jones, 2008) and community gardening (Kaplan, 2001). However, the complexity of environmental attributes and affordances, as well as people's needs and preferences result in a multifaceted people-environment relationship that comprises a diversity of use patterns. Disregarding the diversity of use patterns in urban residential contexts leaves us with ambiguity that can translate both to ill-allocated financial resources and psychological impacts, resulting in decision-making procedures that may reduce the residents' likelihood of outdoor space use. This study investigated three types of use of outdoor spaces (green/social space use, active engagement with the environment, and walk to non-nature destinations) based on the purpose of being outdoors which can provide insights into ways to encourage people to spend more time outdoors.

1.3. The association between neighborhood satisfaction and use patterns

A few studies have reported an association between neighborhood satisfaction and the ways people use their outdoor spaces (e.g., Kaplan and Kaplan, 1989; Kaplan 2001; Kearney, 2006). These studies mostly identify use of outdoor spaces as the predictor of satisfaction level (e.g., Kaplan, 2001; Kearney, 2006), meaning that the more people use their nearby outdoor spaces, the more satisfied they are with their neighborhood. However, other findings raise doubts about accepting such a one-way relationship between satisfaction and use. As many studies have revealed, people like out-

door settings depending on the extent to which the settings meet their needs (Kaplan and Kaplan, 1982). Having nature nearby can also be a potential response to many basic needs through offering a wide range of affordances to urban residents (Kaplan et al., 1998) and is thus associated with neighborhood satisfaction and use. It is also plausible to expect that the more people are satisfied with their nearby outdoor spaces, the more likely they are to use them (Duvall, 2013).

Considering the possibility of this two-way association between neighborhood satisfaction and use raises a number of questions: Do all aspects of neighborhood satisfaction and use patterns have two-way associations? If not, what aspects of neighborhood satisfaction might predict what forms of use of outdoor spaces? What forms of use may predict neighborhood satisfaction? Finding answers to such questions gives us a richer understanding of prior environment-behavior studies while also providing insights into ways to both improve neighborhood satisfaction through encouraging specific forms of use, and to increase use of outdoor spaces through improving aspects of neighborhood satisfaction. By contrast, the cost of disregarding these associations in practice may result in investing on outdoor spaces that are underutilized, and having less satisfaction and sense of community in neighborhoods. To help answer some of these questions, this study investigated the possibility of two-way relationships between four dimensions of neighborhood satisfaction and three forms of use patterns.

1.4. Perception of barriers to neighborhood use

While many factors are likely to impact use patterns, particularly salient are residents' perceptions of barriers to use which may affect perceived accessibility, one of the most commonly measured factors across urban neighborhood studies. With respect to public green spaces, physical access is evaluated in terms of the distribution of such spaces and often includes evaluation of barriers that obstruct access, such as long distances and unsafe routes (Shackleton and Blair, 2013). Perceived barriers that affect neighborhood satisfaction or frequency of use of outdoor spaces include unattractiveness (Giles-Corti et al., 2005), long distances (Giles-Corti et al., 2005; Wright Wendel et al., 2012), safety issues (Lee, 1981; Ward Thompson and Aspinall, 2011) and major roads (Giles-Corti et al., 2005). Given the growing evidence of the importance of accessibility and barriers to use of public spaces, this study examined the extent to which perceived barriers affect each component of neighborhood satisfaction and use patterns.

1.5. Major questions

This study focuses on two major issues. First, identifying specific and useful components of neighborhood satisfaction, use patterns and barriers to neighborhood use that could be considered as measures for these concepts. Second, examining the relationships among the satisfactions and use patterns while controlling for the potential effect of barriers. Assuming that uses can influence satisfaction, or alternatively, that satisfaction may influence use patterns, and that barriers to neighborhood use may influence both satisfaction and use patterns, it was hypothesized that some dimensions of neighborhood satisfaction and use have two-way relationships, and barriers to neighborhood use play an interacting role between measures of satisfaction and use.

2. Methods

2.1. Study area

The study area covers 3400 acres of a moderately dense residential area in Chicago, IL that includes portions of four community

Download English Version:

<https://daneshyari.com/en/article/93921>

Download Persian Version:

<https://daneshyari.com/article/93921>

[Daneshyari.com](https://daneshyari.com)