

Research Paper

A Review of Trends and Knowledge Gaps in Latinx Outdoor Recreation on Federal and State Public Lands

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Executive Summary

The Latinx population in the United States, estimated to compose 28% of the country's population by 2050, has a long history of public land use. Yet while research on Latinx outdoor recreation in urban green spaces has increased over the past 20 years, research on Latinx outdoor recreation on federal and state public lands has waned. A scoping review was conducted to identify the literature around Latinx recreation on federal and state public lands in the United States. We sought to synthesize our findings on four theories (marginality, ethnicity, discrimination, and assimilation and acculturation) to explain the lower participation of minorities in outdoor recreation; and to identify emerging areas of research related to Latinx public land use and outdoor recreation. We reviewed more than three decades of research of Latinx recreation on public lands and found a total of 64 publications on the subject. Our analysis reveals that although institutional barriers such as policies, practices, and procedures that favor some ethnic groups over others continue to exist, barriers to access (such as distance to sites, available free time, and knowledge about how to use public lands) may be shifting; offering clues that may help guide informed approaches to outdoor recreation management. Future research may need to focus on diversification in study sites, as most of the research on Latinx visitation to federal and state public lands has taken place in Southern California. Research in other areas with high Latinx populations could be useful in understanding the recreation behavior and preferences of a growing Latinx community.

Keywords

Latinx, public lands, recreation, race, ethnicity

Introduction

In 2016, outdoor recreation accounted for 2.2% of the United States' gross domestic product, and the outdoor recreation economy grew faster than the overall economy

between 2015 and 2016 (USDC BEA, 2018). In addition, recreation on public lands creates hundreds of thousands of jobs every year (Department of the Interior, 2020; USDA FS, 2021a). Furthermore, participating in outdoor recreation also has numerous physical (Frumkin et al., 2017; Thomsen et al. 2018) and mental health benefits (Gallotta et al., 2015; Mutz & Muller, 2016).

However, the benefits of outdoor recreation are not equitably shared; racial and ethnic minority groups in general are shown to be under-represented in outdoor recreation (e.g., Flores et al., 2018; Garnache et al., 2018; White et al., 2016). For example, recent research found that Latinx represented only 11% of outdoor participation (Outdoor Foundation, 2020) and 95% of visitors to national forests and grasslands identify as white (USDA FS, 2021a). A 2008-2009 National Park Service (NPS) survey (Taylor et al., 2011) found that Latinx made up only 9% of the visitors to their sites, while Whites accounted for 78%; and Le (2012) conducted a meta-analysis of 64 visitor surveys (from 1990-2011) at NPS sites and found that the average Latinx visitation was less than 4%.

Census projections suggest that by 2044, the United States will be a minority-majority nation (Colby & Ortman, 2015). Currently, Latinx make up 18% of the United States' population and are the largest-growing racial or ethnic group (Noe-Bustamante et al., 2020), expected to compose 28% of the population by 2050. Additionally, the percentage of foreign-born Latinx is declining. Therefore, the majority of the Latinx population in the United States are projected to be second, third, and fourth generation U.S. citizens with higher levels of education, and higher incomes (Flores, 2017). Yet despite these demographic shifts, and the long history of Latinx use of and appreciation for outdoor spaces, our knowledge of how Latinx groups think about and use outdoor space is largely limited to research about urban green spaces (Stodolska et al., 2020; Tandon et al., 2018). We know far less about Latinx use of large public lands administered by federal and state government agencies.

Attempts to explain the under-representation of minority ethnic/racial groups in outdoor recreation has been ongoing since the 1980s. However, much of the early research focused on recreation at city parks (Gobster & Delgado, 1993; West, 1989) or on general recreation/leisure (Dwyer, 1992; Edwards, 1981). Additionally, much of this research focused on differences between Whites and African Americans (Washburne, 1978; West, 1989). It was not until the 1990s that rigorous social science research about other races/ethnicities, such as Latinx, advanced.

Understanding the growing Latinx population and their outdoor recreation preferences is important for many reasons, not least of which is maintaining the economic and social sustainability of public lands. To examine visitor-use on public lands, researchers have offered four theories to explain the lower participation rates of racial/ethnic minorities in recreation: marginality, ethnicity, discrimination, and assimilation and acculturation. The marginality theory (Washburne, 1978) posits that there are socioeconomic barriers (often a result of historic discrimination) that racial/ethnic minorities face. The ethnicity theory (Floyd, 1998) hypothesizes that differences in recreational preferences and behaviors arise from cultural values that lead to the development of subcultural styles developed over multiple generations. The discrimination theory suggests that minority groups may experience personal or institutional forms of discrimination and/or face hostility from other users that inhibit their participation in outdoor recreation activities by making them avoid places with perceived or actual discrimination (Lee, 1972). Finally, the acculturation/assimilation theory (Floyd &

Gramann, 1993; Shaull & Gramann, 1998) posits that ethnic/racial minorities recreate differently because of their ethno-racial heritage and/or because they have not adjusted to or adopted the dominant values of mainstream society. These four theoretical frameworks intersect in Latinx recreation on public lands.

In this paper, we review more than three decades of research of Latinx recreation on public lands, including national forests, national park system sites, and state parks. We conducted a scoping review of research identifying and documenting Latinx preferences and behaviors; and identify their contributions using the four theories above. We conclude with a discussion of future research needs, and the implications of our findings for land management agencies.

Methods

The goal of this study was to locate and synthesize the peer-reviewed and gray-literature publications that discuss Latinx recreation on public lands, both federal and state. We aimed to answer four questions: 1) Where were the studies conducted, 2) What did the studies find regarding Latinx preferences and behaviors while recreating on public lands, 3) Which barriers do Latinx face to recreation on public lands, and 4) What are the implications for land management agencies of the findings around the four theories of under-participation by ethnic/racial minorities?

We conducted a Google Scholar search using keywords and phrases including “Latino outdoor recreation,” “Latino recreation,” “recreation and ethnicity,” “Hispanic recreation,” and “public lands recreation.” The USDA Forest Service’s Treesearch database (www.fs.usda.gov/treesearch), which contains publications by Forest Service researchers, was also searched using these phrases to ensure that technical reports were included. Additionally, the USDA Forest Service’s national library conducted a literature search for the topic “Latinx recreation on public lands.” Finally, references encountered while reading publications were located and reviewed for relevance. To be included, studies had to contain information on the type of Latinx recreation, or barriers to recreation, the year of study, and have involved one or more types of federal or state public lands. A total of 64 publications met these criteria: 38 journal articles, 18 reports, seven conference presentations, and one book chapter.

Results

Our review found that research on Latinx recreation on public lands was not evenly distributed, there were spatial and temporal trends. The largest number of studies took place on National Forests (Table 1), mostly in Southern California. Furthermore, the majority took place during the 1990s, and early 2000s. During the 2010s, most studies on Latinx outdoor recreation took place at NPS sites. Research on Latinx recreation in State Parks began in the 2010s and we found only one study on a Bureau of Land Management site, from the 1990s.

Inter-Group Differences

Our review found that research on Latinx within-group differences in recreation preferences took place in the 1990s. Early results showed that Latinx are not a monolithic group, and place of birth could influence their recreational behavior and preferences. For example, Simcox and Pfister (1990; as cited in Chavez, 2001) found that Latinx born outside the United States had greater concerns around law enforcement and communication issues. Heywood and Engelke (1995) found high support

Table 1
Number of Publications Referring to Types of Public Lands, by Time Period

Public Land Type	1990–99*	2000–09	2010–17	2018–present	Total
Bureau of Land Management	1	0	0	0	1
National Forest	12	5	2	2	21
National Park Service	4	2	6	4	16
State Park	0	0	4	1	5
Other Public Lands	0	2	0	1	3
Review	4	4	2	2	12
Total	21	13	14	10	62

* There are two studies from 1989 (Simcox et al., 1989; Snow, 1989) included in the 1990s literature review.

for many behaviors (e.g., putting trash in a trash can and recycling trash) among all respondents; although Mexico-born Latinx were more ambivalent about leashing large dogs compared with US-born Latinx. Mexico-born Latinx were also more likely to agree that it was acceptable to enter others' picnic sites. However, Baas et al. (1993) found few differences between U.S.-born Latinx, Mexico-born Latinx, and Whites.

Several studies (Carr & Williams, 1992; 1993; Chavez, 1993a) compared different Latinx groups. Latinx of Mexican ancestry were more acculturated to mainstream recreation norms, more likely to be with their immediate and extended families; and placed the most importance on having few rules and regulations. Latinx of Central American heritage were instead more likely to be with an organized group, or their “compadres/comadres”; and placed more importance on facilities (e.g., picnic areas, parking). Chavez (1993b) subdivided Latinx visitors into three groups: Hispanic American, Mexican American, and Other. Perceptions of crowdedness showed no statistically significant differences between Latinx groups, although both expected larger crowds than Whites.

Communication Preferences

Researchers have also studied best practices for communicating with the growing Latinx population about recreational needs and opportunities (Simcox et al., 1989; as cited in Chavez, 2001). Most of this research was published in the 1990s, with only two studies in the early 2000s. Snow (1989; as cited in Floyd, 1999) carried out a comprehensive study of Biscayne National Park in Florida and found that more than 60% of Latinx reported there was “not enough information on park rules and regulations.” Hospodarsky and Lee (1995) found that Latinx placed greater importance on learning about the forest from their family and friends.

Parker and Winter (1998) researched visitation to three wilderness areas in Southern California and communication preferences of the visitors. They found that twice as many White as Latinx reported contacting the Forest Service prior to or during the visit. Although both groups expressed a preference for printed information they could take with them (e.g., maps and brochures), Latinx were more likely to prefer television and radio; and also favored information on plants and animals, trails and landscape, tips on wilderness travel, and rules and regulations. Latinx visitors cited park signs, family and friends, and personal observations as the most important sources of infor-

mation; and were less likely to utilize guidebooks and maps (Byrne et al., 2009; Thapa, 2002).

Recreation Preferences

The majority of early Latinx recreation research on state and federal public lands focused on recreation preferences: group size and composition, and activity and site preferences. Multiple studies found that Latinx tend to recreate in larger groups than Whites (Gramann, 1991; as cited in Gramann, 1996; Larson et al., 2012; Le, 2012; Williams & Chavez, 1993a; Winter & Chavez, 1999). For example, Chavez (2001) found that Latinx recreated in larger groups than Whites (average group size of 11 vs. 6), and Simcox and Pfister (1990; as cited in Chavez, 2001) found an average group size of nine. This preference was also true in New Mexico (Irwin et al., 1990); where Latinx camped in larger (almost twice the size) groups than Whites. Another common finding was that Latinx were more likely to visit with family (both immediate and extended) or friends (Byrne et al., 2009; Chavez, 2008a; Le et al., 2013; Williams & Chavez, 1993a). Key findings from review publications (Chavez, 2001; 2005; 2008b; Roberts et al., 2009) reinforced Latinx recreating in larger groups and with family. However, Snow (1989; as cited in Floyd, 1999) found no significant differences. Chavez (1992; 1995) explored participation and interest by race and ethnicity in a range of recreational activities, but only two of the nine (natural history hikes and horseback riding) activities showed a statistically significant difference between racial/ethnic groups. The same data were used in another study (Chavez, 1994) to classify the activities into 'traditional' (at least 30% of the respondents) and 'non-traditional' (less than 30%). Current traditional activities for Latinx visitors were mountain biking and natural-history hikes, and future traditional activities for Latinx recreationists were horseback riding, camera safaris, and volunteer hosting. Gramann and Floyd (1991; as cited in Floyd, 1999) researched national park visitation among residents of Phoenix, Arizona. The authors found few statistically significant differences between the two groups regarding their participation in different activities. The largest differences were for sightseeing (greater White participation) and fishing (greater Latinx participation).

In further studies on recreational activity preferences, Floyd and Gramann (1993) conducted a telephone survey of two Arizona counties on their use of specific locations (water and land) on the Tonto National Forest. Latinx respondents were split into three groups based on their level of acculturation (as measured by preference for English over Spanish). The least acculturated group participated in fewer activities than Whites for four of the five activity types, while the most acculturated group differed from White visitors in only one category (water/snow-based recreation). For two activity clusters—water/snow-based recreation and travel-oriented recreation—as assimilation increased, the number of activities participated in became closer to Whites.

Several studies (Chavez et al., 1993a; Larson et al., 2014a) found that Latinx were more likely to participate in team sports such as volleyball and soccer. Picnicking was also a very common activity for Latinx (Chavez & Olson, 2008; 2009; Chavez et al., 1993a; Chavez et al., 1995; Larson et al., 2014a; Snow, 1989; as cited in Floyd, 1999). However, Chavez (2012) noted that "picnicking" for Latinx was often different than for other groups. Instead of enjoying a prepared meal, meals are often cooked onsite (even from scratch); and it is often an all-day activity. Water-based activities, such as swimming and playing in streams, have also been shown to be popular amongst Latinx (Chavez, 2008a; Chavez & Olson, 2008; 2009; Pawelsko et al., 1997; Snow, 1989; as cited in Floyd, 1999); and more popular than walking or hiking (Larson et al., 2012; Le,

2012). Finally, review publications from the early 2000s (Chavez, 2001; 2005; 2008b; Roberts et al., 2009) highlighted that Latinx are more likely to be day-use vs. overnight visitors. For example, Thapa et al. (2002) examined day-use visitation to the Angeles and San Bernardino National Forests (California) and found that Latinx respondents were twice as prevalent among day users than among overnight campers; and Larson et al. (2012) showed that White respondents were over-represented at campgrounds while Latinx users were over-represented at day-use sites.

Multiple studies have explored site preferences for Latinx recreation on public lands. Since 1989 (Snow, 1989; as cited in Floyd, 1999), research has shown that Latinx visitors are more likely to express a preference for expanded services and facilities (Hospodarsky & Lee, 1995). Moreover, Chavez and Olson (2008; 2009) surveyed day-use visitors at sites in four Southern California national forests and found that nine facilities and amenities (e.g., cooking grills, water faucets) were each rated as important or very important to at least 45% of the Latinx respondents, confirming previous studies that showed Latinx recreationists prefer more developed sites. More recently, Larson et al. (2014a) found that Latinx were 153% as likely as Whites to rate developed areas and facilities as important. Review publications (Chavez, 2001; 2005; 2008b; 2012; Roberts et al., 2009) have also highlighted that Latinx usually prefer more developed sites. However, Whiting et al. (2017) had different findings from their study on Georgia state parks; Latinx expressed a stronger preference for natural areas than other racial/ethnic groups, and there were no significant differences between ethnic/racial groups for developed sites.

Irwin et al. (1990) found clear differences in campground preferences. White recreationists prioritized quiet surroundings and privacy, whereas Latinx most often mentioned infrastructure such as toilets, water, and fire rings. Latinx were also much less likely to use dispersed campsites and roadless areas; and intended to camp at highly developed areas in the future. Similarly, Heywood (1993) researched behavioral conventions at outdoor picnic areas on national forests, asking if it bothered visitors when others walked into or through their picnic site. Those completing Spanish language questionnaires reported that they were less likely to be bothered than respondents completing the English language questionnaire; reaffirming that Latinx were less concerned with privacy while recreating.

Larger and/or more picnic tables were important site attributes for Latinx recreationists, as there needs to be room to accommodate family groups, often multigenerational (Pawelsko et al., 1997). For example, one of the first studies of the early 2000s was that of Chavez (2002), who discussed adaptive management of the Applewhite Picnic Area on the San Bernardino National Forest, mainly used by Latinx. The key finding of a survey prior to renovation of the picnic area was that respondents wanted a high level of site development, for example many picnic tables in large groups. After reopening, more Latinx than Whites reported that they liked the site features (e.g., picnic tables and BBQ grills) and were also more likely to comment on the site having a “family feel.”

Motivations

Additionally, more recent studies have shown that Latinx respondents place a greater importance on being with family and friends (e.g., Chavez, 2012; Larson et al., 2014a). For example, Roberts and Chitewere (2011) summarized secondary data on minority visitation to national parks and non-visitors to the Golden Gate National Recreation Area. Results were not broken down by ethnicity/race; however, the au-

thors did note that Latinx park visitation was related to extended family. Additionally, Whiting et al. (2017) explored visitor motivations and site preferences at Georgia state parks. Race/ethnicity had a significant influence on three of the four motivations (social interactions, physical health and fitness, nature interaction), with Latinx reporting stronger motivations than at least one other racial/ethnic group.

Barriers

Barriers to Latinx recreation on public lands is another key area of research, especially in relation to the four theories previously described. Blahna and Black (1993) held focus groups with Chicago college students to investigate barriers to recreation at local, state, and national recreation areas. Results showed that racism-related barriers could be grouped into six themes: 1) on-site racism from other users, 2) on-site racism from professional staff, 3) differential upkeep and management of parks, 4) fear of expected or potential racism, 5) historical racism, and 6) social effects of past economic discrimination.

Williams and Chavez (1992) found that the level of acculturation (as measured by English language skills) varied, with respondents at the study site primarily used by Whites more likely to have a higher level of acculturation. Another study (Floyd et al., 1993) found only marginal support for the assimilation/acculturation theory; cultural distance was statistically significant for only three of the 13 models and had a negative correlation: respondents who primarily used Spanish were less likely to visit those three areas, and outdoor recreation participation was lower for respondents who used the Spanish language extensively in different social settings. Instead, there was greater support for the marginality theory, which was significant for seven of the models, in which a higher level of education corresponded to a higher likelihood of visitation.

In the early 2000s, more researchers began investigating barriers to outdoor recreation. Johnson et al. (2007) explored differences between racial and ethnic groups recreating on federal public lands. Their results showed that Latinx respondents were less likely to be aware of federal lands than White respondents. Both African Americans and Latinx had lower awareness of Forest Service mandates than Whites, although the percentage for Latinx was closer to that of Whites. Finally, respondents who were aware of federal lands were more likely to have previously visited. Roberts and Rodriguez (2008) researched participation and non-participation at Rocky Mountain National Park using focus groups. The top constraints identified were intrapersonal (e.g., lack of knowledge on benefits of visitation), interpersonal (e.g., discomfort and/or safety, “not part of my culture”), and structural (e.g., lack of minority staff, perceived discrimination). Respondents also commented on a lack of marketing geared toward ethnic/racial minorities. Furthermore, the lack of outdoor recreation as a child acted as a constraint to visitation as an adult. Xiao et al. (2018a) also found this result, that childhood visitation had a significant influence on national park visitation as an adult.

The findings of Byrne et al. (2009) support the marginality theory, as White visitors were significantly older than Latinx visitors and had higher incomes. Latinx visitors were less likely to visit the park on weekdays; and reported that ease of taking children would be a reason for visiting a local city park rather than a national recreation area. Tierney et al. (2001) also found that Latinx respondents were less likely to have visited an undeveloped natural area (national and state parks, forests, wildlife refuges, and open spaces outside cities) than either White or Asian respondents, and Latinx were the group least likely to have taken any leisure trip. Across all ethnicities, lower

household income also corresponded with a decreased probability of visitation to a natural area, although Latinx had significantly lower household incomes than Whites.

Results from Tierney et al. (2001) also support the discrimination theory. In terms of barriers, Latinx respondents were more likely to agree with the statements “I would travel more if more workers of my ethnicity were employed there” and “People of my ethnicity are discriminated against when traveling.” Review publications from the early 2000s (Chavez, 2001; 2005; 2008b; Roberts et al., 2009) highlighted discrimination as a barrier for Latinx recreation on national forests; noting that Latinx often felt unwelcome or discriminated against, and unable to find similar people visiting or working at the site. Only one study (Thapa, 2002) during this period was found that addressed the acculturation/assimilation theory, finding that Latinx respondents were the least likely to approach a ranger or employee for information, probably because of the language barrier.

The years 2010–2017 saw a substantial increase of research into barriers Latinx (and other ethnic/racial minorities) recreationists faced. Multiple studies (Metcalf et al., 2013; Parker & Green, 2016) found support for the marginality theory. Significant constraints faced by Latinx recreationists included weather, lack of knowledge of recreational opportunities, lack of adequate transportation, entrance and/or parking fee charged, and distance to the site. Furthermore, the top three strategies employed by nontraditional visitors to start/continue/increase recreation on the forest were all under the category of time management. Transportation was also found to be an important barrier for Latinx recreationists (Le et al., 2013; Perry et al., 2015) as was accessibility (Larson et al., 2014a; Le, 2012). Weber and Sultana (2013) found that for NPS site visitation, Whites had the highest accessibility, followed by African Americans, then Latinx. Results also showed a relatively large correlation (0.55) between Latinx accessibility and visitation; and when only national parks were analyzed, the correlation was even larger. A 2014 article (Larson et al., 2014b) concluded that Latinx were more dependent than Whites on local parks and state parks for physical activity. Whites were more likely to use their home and/or backyard; and gyms and recreation centers were mainly used by higher income groups.

In regard to acculturation/assimilation theory, several studies (Metcalf et al., 2013; Parker & Green, 2016) found cultural reasons and signs/information not in their native language were significant constraints for Latinx. Similarly, Le et al. (2013) reported that 52% of respondents who had not previously visited Saguaro National Park were non-English speaking, while 92% of those who had visited spoke English. Many studies also found support for the intersection of theoretical frameworks. For instance, Krymkowski et al. (2014) researched visitation of NPS sites and found a statistically significant difference between visitation of Whites and Latinx, with the latter having a lower level of visitation. Reasons for the difference included safety concerns, socioeconomic factors (e.g., income), and enjoyment of out-of-town nature trips. However, the extent of acculturation was the largest factor. Similarly, Chavez (2012) found that top constraints included being uncomfortable in the outdoors, discrimination, and travel and/or outdoor recreation being too difficult. Mott (2016) reviewed minority use of national parks and found that, although a lack of knowledge was the most cited reason for non-visitation, many of those that do visit believe public lands to be unpleasant and/or unsafe. Le et al. (2013) also reported a perception among respondents that public lands exist to serve non-Latinx interests.

Research on barriers has continued with several recent studies and review papers on the subject. Marginality theory was again showed to be applicable to Latinx recreation barriers, with time, money, and accessibility commonly noted (e.g., Scott & Lee, 2018). Xiao et al. (2017) found that Latinx had the highest agreement with three barriers: comfort and safety, expense, and accessibility. Xiao et al. (2018b) found that both African Americans and Latinx were more likely to visit urban NPS sites, while Whites were more likely to visit rural NPS sites. A recent study (Winter et al., 2020) explored visitation to national forests among metropolitan California residents. Across all respondents, the most common reason for having never visited a national forest was the distance and a lack of time.

Several recent studies also support the discrimination theory. In a Florida study (Ryan et al., 2020) focus group participants reported feelings of exclusion and/or discrimination; and noted a lack of Latinx staff at the nearby Castillo de San Marcos National Monument. Scott and Lee (2018) reviewed visitation to NPS sites and found barriers included boundary maintenance (actively constructing and highlighting ethnic and/or racial differences), which contributes to minorities not viewing public lands as suitable recreation destinations. Furthermore, discrimination and White racial frames also made minority visitors feel that public lands are “culturally irrelevant” to ethnic/racial minorities. However, Flores & Sánchez (2020) did not find racial discrimination to be a barrier, as respondents largely reported feeling welcomed at the sites.

Emerging Research Areas

As time passes, outdoor recreation preferences and behaviors change. Advances in technology will continue to affect both the quantity and quality of Latinx outdoor recreation experiences (Valenzuela, 2020; Warnick, 1995) and can create new opportunities (Valenzuela, 2020). Technology’s influence on recreation participation spans five categories—access and transportation, comfort, safety, communication, and information—all leading to increased recreation use (Ewert & Shultis, 1999). Improvements in access and transportation could help facilitate Latinx visitation to public lands as transportation is often a barrier (Parker & Green, 2016; Xiao et al., 2017). Technology, in particular social media, can increase interest in outdoor recreation locations (Martin, 2017) as well as non-traditional activities for Latinx.

Climate change is also expected to have extensive impacts on forest landscapes, and to change outdoor recreation behavior decisions (Richardson & Loomis, 2004). Water-based recreational activities, which are a strong preference for Latinx visitors, require sufficient water flows and levels, and suitably warm temperatures (Loomis & Crespi, 2004; Mendelsohn & Markowski, 2004). Visitors can also use water-based activities to counter extreme heat (Hand & Lawson, 2018). Participation in non-motorized water recreation is therefore expected to increase in some regions due to climate change (Perry et al., 2018; White et al., 2016).

Climate change will also affect outdoor recreation via site closures. Trails, roads, campgrounds, and other infrastructure are sometimes located in areas prone to flooding (Strauch et al., 2015). Site closures can also occur from insufficient precipitation for water-based activities (Chang & Bonnett, 2016; Martin, 2014). Given that Latinx already face barriers in outdoor recreation, site closures add further stress and increase inequalities in access (González, 2020). Lastly, climate change can lead to a diminished quality of the visitor experience. Lengthy trajectories for repair and recovery of recreation areas (closure from wildfires, floods, etc.) have a higher burden among Latinx

communities through loss of quality recreation experiences in proximate forested areas (Winter et al., 2021).

The COVID-19 pandemic caused dramatic increases in the use of public lands as people sought outdoor recreational opportunities. In the United States, national forests had record-breaking attendance (USDA FS, 2021b) and multiple national parks had at least one month of record visitation (National Park Service, 2021). However, multiple studies (e.g., Gibbons, 2021; Jay et al., 2020) have shown that marginalized communities decreased their recreational activities during the pandemic; but little is known about any changes to their visitation to federal and state public lands, and further research is needed to fully understand the impact on Latinx communities.

Management Implications

This review suggests that all four theoretical frameworks (marginality, ethnicity, discrimination, and acculturation/assimilation) intersect and can act as barriers to Latinx recreation on public lands. Therefore, land managers have multiple options. Developing proactive approaches can help reduce some of the barriers Latinx communities have experienced in the past and promote higher participation in the future.

Marginality Theory

Accessibility of national and state public lands is a strong barrier to greater Latinx participation; distance, transportation, time, and cost all contribute to the difficulties faced. Discounts, such as reduced entry fees or family passes at an affordable price, could be offered to help offset the financial costs (Whiting et al., 2021). Another option for sites requiring permits is setting aside a certain number of permits to be given to members of nearby underserved communities for free. Partnering with nonprofit organizations and local communities to remove barriers to visitation is an additional approach. For example, Sánchez et al. (2020) described how the Forest Service partnered with a local nongovernment organization to offer free transportation via shuttle buses to a local national forest. Furthermore, partnerships with nonprofit organizations, such as Latino Outdoors and Outward Bound Adventures, can help reduce barriers by introducing and connecting Latinx communities to the outdoors.

Ethnicity Theory

Much of the support for ethnicity theory comes from studies examining different recreational site and activity preferences. When changes to sites and management plans are undertaken, adequate consideration of Latinx (and other minority groups) needs and preferences is necessary. Additionally, lack of information on public lands recreation opportunities is a theme that emerged throughout this review. Land management agencies could re-evaluate their marketing approach to find new and/or more effective ways to reach underserved populations (Theriault & Burke, 2020; Whiting et al., 2021). It will be important for this material to be in the native language(s) of the nearby communities; and utilize preferred communication modes to maximize outreach. Chavez (2000) noted that an effective way of reaching Latinx communities is through a trusted community member (Duyn et al., 2007; McChesney et al., 2005). It has also been suggested that involving local churches in outreach efforts could help boost participation (Clarke et al., 2015).

Discrimination Theory

To diminish perceived or real discrimination, public land management agencies may need to hire a more diverse workforce, provide employees with inclusivity and inclusion training, and be more engaged with local community members before making management decisions. Furthermore, implementing a method for reporting discrimination by staff and other recreationists may reduce future discrimination. Greater engagement with nearby communities can also help overcome discrimination barriers. However, strategies to effectively engage Latinx populations in outdoor recreation should incorporate the “I” triad: invite, involve, and include (Chavez, 2000). Clarke et al. (2015) have argued that traditional approaches using this technique must consider doing so in an authentic manner or with genuine *confianza* (trust) and *respeto* (respect).

Acculturation/Assimilation Theory

Effective outreach will necessitate paying attention to within-group differences such as place of birth, competency with the English language, and time living in the United States (Rodríguez et al., 2014; Whitt-Glover et al., 2009). Recreation preferences and behavior are changing due to demographic shifts (from first generation immigrants to second, third, and fourth generation), as well as the US becoming more racially and ethnically diverse. For example, Flores and Sánchez (2020) found that Latinx recreation is changing, with many recreationists now participating in activities beyond picnicking such as hiking, camping, backpacking, and tubing. However, it will be important to assess the relative levels of acculturation in nearby communities to ensure a greater focus on desired activities, while acknowledging that over time some of these preferences may shift, depending on other barriers.

Future Research

Although our review demonstrates an increased need for research on Latinx outdoor recreation on federal and state public lands, most research on Latinx outdoor recreation continues to focus on city parks and urban areas. Latinx visitation to national forests has been increasing, although slowly, from a five-year average of 6.1% (2013–17) to 6.9% (2016–20; USDA FS, 2021a). However, little is known about the sociodemographics of visitors to other federal or state lands. To fully understand how Latinx outdoor recreation preferences and behaviors are impacted by climate change, pandemics, generational shifts, discrimination, communication preferences, and other issues discussed in the paper, continued research is needed. In particular, future research may need to focus on diversification in study sites. To date, most of the research on Latinx visitation to national forests has taken place in Southern California. Research in other areas with high Latinx populations, such as Texas, Florida, and Arizona, could be useful.

Conclusion

Traditional management decisions are often outdated and need to be reevaluated to be more sensitive to, and inclusive of, Latinx and other racial/ethnic minority groups. Looking to the future of outdoor recreation, Blahna et al. (2020) argued that the concept of recreation must be expanded to include broader uses, experiences, and connections to public lands. They also noted that the historical emphasis on traditional recreation activities is not always appropriate given urbanization and increased ethnic/

racial diversity. Instead, a new paradigm is needed that better captures the diverse recreational uses, the human connections with the land, and the ecosystem and cultural services provided by the land.

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