



**2020 NRPA Annual Conference:
A Virtual Experience
October 27-29, 2020**

**Abstracts from the
2020 NRPA Research Sessions**

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Preface

Welcome to the 43rd year of research sessions at the National Recreation and Park Association (NRPA) Annual Conference. This year marks the 6th year these submissions have been held under the NRPA Research Sessions (NRS) banner. Unfortunately, the global COVID-19 pandemic prevented an in-person gathering this year. Though we are unable to share the research in-person, we hope you find this book of abstracts a beneficial way to review a sample of the existing research related to parks and recreation. As with previous years, abstracts are aligned with the thematic areas of health and wellness, conservation, social equity, recreation administration, and methodology.

The NRS abstracts are intended to both advance parks and recreation research, and provide practical application for parks and recreation professionals and providers. As such, each abstract contains an overview of the research and an “Application to Practice” session that details how the research is relevant to the day-to-day management of parks and recreation programs and facilities. As you engage with the research, we encourage you to reach out to the author(s) with follow-up questions related to the research or how the research can be applied to parks and recreation administration. Our goal is to continue to strengthen the research-to-practice connection, and ensure that research is provided in the service of the profession and the overall benefit of society. We believe that the research presented here does that, and hope you will continue the conversation by reaching out to the authors. Contact information for the lead author is provided at the end of each abstract.

The organization of NRS is a collaborative effort. We are especially grateful for the work of Kelly Moffett, Senior Education Manager at NRPA. Kelly joined NRPA in the middle of this process, and did not miss a beat. Her assistance, dedication, and responsiveness has been invaluable. We also extend our thanks to the reviewers, whose commitment to service and the profession is much appreciated. Their names are listed on the following page. And of course, none of this would be possible without the many researchers who submitted their work for consideration, and attended to the suggested edits of the reviewers. Thank you.

Keith Fulthorp and Eric Legg

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I. HEALTH & WELLNESS

ARCHERY SHOOTERS: ARE THEY ON TARGET?

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Introduction

Americans' interest in and appreciation of nature-based recreation keeps growing, however, new generations are a challenging market. Younger generations' increasing disconnection with nature seems to be inverse to the increasing attachment to computers, cell phones, television, and other media (Cordell & Green, 2008). Outdoor recreation provides people opportunities to enjoy natural areas and participate in recreational activities that may provide physical challenge while provoking interest of the natural world (Boman, Fredman, Lundmark, & Ericsson, 2013). The Oklahoma National Archery in Schools Program (OKNASP) offers an opportunity for students in 4-12th grade to engage in an activity that meets the school physical education (PE) standards and provides benefits such as increased self-confidence, motivation and concentration as well as increased awareness in hunting and shooting sports. This program has been a continued effort started in 2002 by the National Archery in Schools Program (NASP), wildlife agencies, archery organizations, and state education departments. Currently, the program has expanded to 47 states and 11 countries. According to NASP, in the 2018-2019 season almost half of the participants of the program (49.31%) competed in tournaments within schools and at the state, national or international levels (NASP Insider, 2019). The purpose of this study is to examine participants' satisfaction with the OKNASP and its impact on outdoor recreation.

Methods

Data collection was conducted through an on-site survey completed by volunteers who were 18 or older. The survey consisted of 15 open-ended questions and was designed by the Leisure Studies Program at Oklahoma State University (OSU) in conjunction with Oklahoma Department of Wildlife Conservation (ODWC) to inquire the participants' satisfaction with the program, and to learn about the impact of the program on the participants. Data were analyzed using descriptive statistics such as Mode was found for the Likert-type scale in order to learn the level of participants' satisfaction, categorical data were summarized through Frequencies, and Means and percentages were calculated based on the total amount of surveys completed with the purpose of learning the impact of the program.

Results

The total number of completed surveys was 274. Results indicate that most of the interviewees were family members of the program participants (86%) and only 12% were coaches. As shown on Figure 1, most of them were very satisfied with the different aspects of the program: Organization (87%), Safety (96%), Effectiveness in Teaching (85%) and Overall Experience (93%). Furthermore, 98% of them would recommend the program to others. In regards to the impact of the program on time spent outdoors, 65% believe that after joining the program, participants spend more time outdoors. Slightly over one third of participants (34%) increased their interest in hunting as a result of their

participation in the program, and 59% of them associate the program with hunting. Additionally, results show a lack of diversity among the participants since over 70% of them identified as White/Caucasian, 19% Native Americans and the rest of the groups were underrepresented. More than half of the participants were males (59%) and 41% females.

Discussion

Leisure satisfaction is understood as positive emotions and feelings that an individual show when engaging in leisure activities which fulfill individual needs (Beard & Ragheb, 1980) (Du Cap, 2002). The findings of this assessment indicated that participants in the archery program are overall very satisfied with the program thus satisfying their individual needs. Need satisfaction through this program is important since the students will continue to participate in it and gain the benefits provided (Leversen, Danielsen, Birkeland & Samdal, 2012). Furthermore, by learning whether the participants gain the expected benefits of the program and by determining their level of satisfaction, leisure service providers may improve the activities they offer and confirm whether they are in line with the participants' satisfaction (Karlı, Polat, Yılmaz, & Koçak, 2008).

As reported by another study, the archery program helps increase awareness in hunting and shooting sports. That study showed that 56% of participants will hunt or fish in their lifetime (School Archery Program Benefits South Dakota, 2011). These findings coincide with the results of this assessment as after joining the archery program, some participants found hunting more appealing and increased their interest for spending time in the outdoors. As discussed earlier, younger generations spend more time with their electronic devices than outdoors (Cordell & Green, 2008), and this program encourages them to be outdoors.

Application to Practice

Assessing this program can help wildlife agencies and state schools discover a new interest and aptitude for archery among students. Learning about the participants' satisfaction in the several aspects of the program and the participants' perception of the program may be used as a form of maintaining quality in the program and to monitor coaches' performance. By acknowledging that males outnumber females and the lack of diversity of ethnic groups, wildlife agencies may gauge a more effective way to encourage students to participate and in turn promote outdoor recreation.

Research suggests that a high level of physical fitness is required to succeed in archery; it requires endurance and muscular strength to cope with the demand (Musa, Majeed, Taha, Chang, Nasir & Abdullah, 2019). Thus, this program provides an alternative activity that meets the PE standards.

Furthermore, understanding how the program may positively impact their lives as seen in testimonials from students and coaches (NASP Insider, 2019) and learning that 80% of students nationwide like archery (School Archery Program Benefits South Dakota, 2011), parties involved in the delivery of the program will be encouraged to continue offering and improving it.

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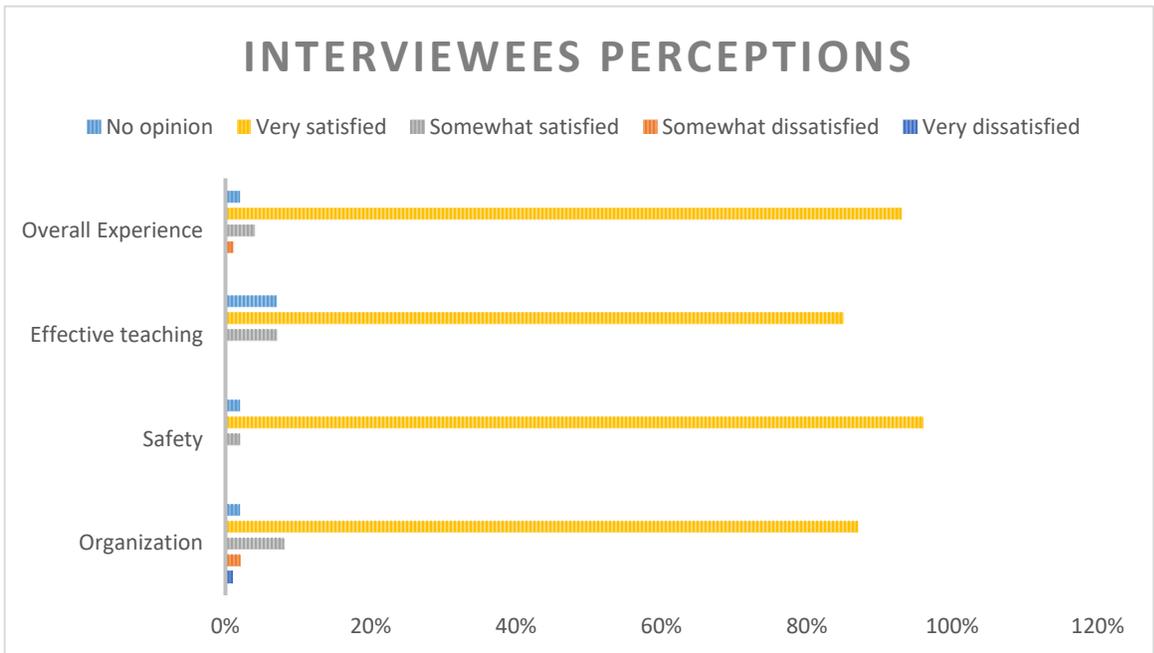


Figure 1. Interviewees Perceptions of OKNASP

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STRATEGIES FOR FACILITATING OLDER ADULTS SPORT

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Introduction/Rationale

Participation in leisure-time physical activity (LTPA) can have numerous benefits for older adults, including increased functional independence, stamina, and psychological well-being along with the reduced likelihood of falls, chronic conditions, depression and all-cause mortality (Keadle et al., 2016; Kim et al., 2017). More specifically, participation in recreational sport can lead to physical, cognitive, emotional, and social benefits for older adults (Gayman et al., 2017). Unfortunately, the majority of older adults do not meet the minimum physical activity guidelines recommended for health benefits (150 minutes of moderate to vigorous activity per week), and some sub-groups (e.g., women, those with low income, people with disabilities) engage in less LTPA on average (Keadle et al., 2016). Scholars have suggested that public parks and recreation organizations can provide an ideal setting for facilitating participation in LTPA for older adults and hard-to-reach groups (Liechty et al., 2014; Liechty et al., 2019); yet, limited research has explored how parks and recreation agencies can best facilitate LTPA for older adults on a large scale. Therefore, the purpose of this study was to investigate participation in recreational sport among older adults across the U.S. and their perceptions of how local parks and recreation agencies currently meet their needs.

Methods

Data for this study was collected through an online questionnaire. Participants included 1,203 adults (552 men, 651 women) aged 50 and older (M age = 63.38, SD = 8.25). Participants were recruited through a third-party company that invited adults over the age of 50 across the U.S. to participate via email requests. The questionnaire included demographic questions (e.g., age, gender, level of education), self-reported health, and items related to satisfaction with available opportunities to play sport through local parks and recreation organizations. Additionally, participants reported their level of agreement with various reasons why they chose not to participate in recreational sport, things that would encourage them to participate, and what parks and recreation agencies could do to facilitate participation. Data were analyzed through descriptive statistics, chi-square tests, and Pearson correlations using SPSS 25 software. All statistically significant results were determined at the $p < .05$ level.

Results

Overall, participants reported relatively low rates of participation in sport and other LTPA. When asked why they do not participate in sports they enjoy, some of the most common reasons included: "I don't have friends, family, and/or acquaintances with whom to participate" (39% agreed or strongly agreed), "I don't have people my age with whom to participate" (39%), "I am not in good enough shape to participate" (35%), "I don't have

enough money to pay for it” (34%), “I don’t know what sport activities are available for my age” (33%), and “The facilities and/or fields aren’t convenient” (28%). These constraints were consistently reported more often by women, those with lower levels of education, and those with lower self-reported health. When asked what might encourage them to start, continue, or increase their involvement in sports, some of the most common items included: “Having good health” (79% agreed or strongly agreed), “To be active” (77%), and “Because it’s enjoyable” (69%). In response to questions on how local parks and recreation departments might encourage participation in sport, common items included: “Access to activities that are offered at low cost” (61% agreed or strongly agreed), “Safe facilities and fields to use” (58%), “Access to information about available opportunities” (55%), and “The opportunity to participate in activities that have been modified for my age group” (54%). When asked what sports they have not tried, but would like to if given a chance, the most commonly reported were golf (10%), pickleball (8%), and softball (6%).

Unfortunately, the results suggest that local parks and recreation agencies are falling short when it comes to meeting the needs of older adults. Only 8% of participants reported that they often or very often go to their local parks and recreation departments to find out what is available. Furthermore, women, those with lower education, and those with lower self-reported health had significantly lower scores. Similarly, when asked if they are satisfied with the sports programs provided for older adults by their local parks and recreation departments, only 19% reported that they agreed or strongly agreed. Levels of satisfaction were significantly lower among women, those with lower levels of education, and those with lower self-reported health. Finally, to determine strategies to communicate sport-related information with older adults, participants were asked about outlets they use regularly (defined as reading/checking at least once per week). Facebook was the most used social media platform. More than 64% of respondents agreed or strongly agreed that they used it regularly, which was significantly higher than Instagram (14%), Twitter (16%), and even their local newspaper (54%). In addition, social media was used across the sample, whereas participants with higher levels of education and higher levels of self-reported health were significantly more likely to read their local newspaper regularly.

Application to Practice Outcomes

First, the findings suggest that parks and recreation agencies need to prioritize sport and other LTPA opportunities for older adults rather than assuming that older adults are not interested in sport or that sport is mainly for children and youth (Berg et al., 2015; Stone et al., 2018). Specifically, professionals need to prioritize those sub-groups (e.g., women, low SES) most vulnerable to physical inactivity. Second, the findings suggest that professionals can tailor effective sport opportunities for older adults by designing programs that are low cost and convenient, do not require advanced skill/fitness levels, and do not require them to join with a companion (e.g., drop-in pickleball games). Third, it seems that communication with older adults could be addressed through targeting channels they use (e.g., Facebook) and by highlighting sport programs as opportunities to be active, enjoy themselves, and improve health.

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MAKING VIRTUAL COMMUNITIES WORK FOR YOUR COMMUNITY

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Introduction and Rationale

Park and recreation professionals are tasked with the challenge of keeping up with today's ever-changing technology. Agencies must now facilitate online program registration, incorporate new technology as it becomes available, and remain vigilant and adaptable in order to survive and attract the ever growing Digital Generation. Although some practitioners feel a larger effort should be made to focus more on face-to-face program implementation, many practitioners believe that technology is one of several programmatic tools available and that it should be used to positively enhance current and future programs (Duerden, Aaron, & Cromwell, 2011).

In addition to technology use in program implementation, professionals should consider technology as a way to reach community members and potential program participants in order to increase community involvement. One way this might be accomplished is via the formation of leisure-based virtual communities designed and fostered by park and recreation agencies. Virtual communities refer to a group of individuals for whom communication is facilitated through computers, gaming devices, or other internet-based mediums (Ridings, Gefen, & Arinze, 2002). For example, communities formed utilizing the Facebook groups function. Virtual communities are increasing in popularity with the advance of technology and new forms of socialization. However, even though virtual communities have been around for over thirty years (Ridings, Gefen, & Arinze, 2002), they have not been commonly adopted into the park and recreation professional "tool kit" in such a way as to be seen as valuable in program delivery or in reaching community members to foster stronger community connections and involvements. Therefore, the purpose of this study was to explore the perceptions of benefits and motivations among participants of a leisure-based virtual community. This insight can allow practitioners to better assess the usefulness of this technological tool in designing programs and in attracting participants.

Methods

This study used a qualitative methodology, Netnography, which is geared toward understanding online experiences. Netnography is a specialized form of ethnography adapted to the unique environment of computer-mediated communication (Kozinets, 2010; 2015) and was used to explore the perceived benefits and motivations of members of the virtual community, The Hogwarts Running Club (HRC). The HRC was an ideal study setting for this study due to the popularity of the community (over 16,000 members worldwide) and the leisure-based nature of the community (HRC, 2018). The HRC virtual interactions took place via a Facebook group where the focus of discussion was on Harry Potter and running. The sample for this study consisted of 2,134 posts collected over a six-month time period (Wu & Pearce, 2014). Analysis of the data utilized an inductive approach to build up individual observations that provided a holistic representation of the dataset (Kozinets, 2010; 2015).

Results

Data analysis revealed three primary categories of perceived benefits and motivations among the Facebook posts collected: 1) improved physical health, 2) improved mental

health, and 3) social and emotional support. Participants indicated that their participation in HRC community events and the support and encouragement they received led to these perceived benefits.

Application to Practice

As many park and recreation agencies have commitments to improve quality of life for their constituents, facilitating a leisure-based virtual community might be one avenue of doing so, as implied by the findings of this study. One means to apply the findings of this study is with Self-Determination Theory (SDT). SDT has been used to understand individual behavior related to innate human needs and resulting benefits to well-being (Ryan & Deci, 2017). The findings of this study support this theory and extend current literature focused on face-to-face leisure settings to now include virtual leisure settings as places to meet human needs of autonomy, relatedness, and competence.

1. Autonomy. Autonomy is defined as the need to be an agent of change in one's own life and to feel control over decisions we make and the outcomes we work toward. In practice, the programmatic structure of the HRC has demonstrated ways to incorporate elements of choice into a supportive community structure. For example, the nature of the virtual races offered not only gives participants the option to participate or not, but gives participants the control over when and where they will complete the race distance. For many members initially entering the running world, having the option to schedule the race on their own time and in their own space can be empowering. An agency wishing to capitalize on this should look to build this level of flexibility into their own virtual community, possibly in the design of community activities, discussion topics offered, or even the chance to utilize the virtual space to connect in-person.

2. Relatedness. Relatedness is described as the universal need to interact with others, care for others, and feel cared for in return. Study findings suggest the importance of promoting positive social interactions to the success of a virtual community as social support facilitated engagement in running and in the virtual community. Park and recreation professionals seeking to establish virtual communities should consider ways to foster feelings of relatedness in their own programs and virtual communities. For example, agencies might consider providing opportunities for meaningful identity expression, establishing community policies that members are expected to be supportive, and utilize theming to facilitate positive relationships through shared interests. The HRC frequently uses elements from the Harry Potter book/film series to theme elements of the community such as names of races, roles for member volunteers, or online activities.

3. Competence. Competence is described as the process of working toward bettering oneself and seeking to control our experiences and outcomes of that process. HRC discussions regularly celebrated members' progress and accomplishments. In terms of practice, park and recreation professionals wishing to incorporate elements of competence into their own virtual community should consider following the model set forth by the HRC. For example, the HRC community has been structurally designed to incorporate opportunities for competence by giving participants the opportunity to earn achievement awards (race medals) or to work through levels of growth and participation with a completion award (Perfect Prefect status).

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YOUTH SPORTS PARENTS AND COACHES PERCEPTIONS OF PLAYER HEALTH AND SAFETY

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Introduction/Rationale

Participation in youth sports provides numerous personal, social, and physical benefits (Neely & Holt, 2014). Even though parents agree youth sports activity is important, they have concerns regarding injury risk (NHYSI, 2011). According to a report by the Aspen Institute (2018), more than 87% percent of parents worry about risk of injury to their child, and a ¼ of parents consider not allowing their children to participate in sports. According to Whitehead (2014), 94% of Americans would like more awareness and preparedness regarding health and safety of youth athletics. Therefore, the purpose of this pilot study was to explore youth sports parents and coaches' perceptions of player health and safety in a town recreational lacrosse program.

Methods

A single exploratory case-study design was selected for this pilot study. Two non-probability sampling techniques were used, purposeful and convenience (Bryman, 2014). Participants were parents and coaches from a local youth lacrosse program in the Northeast. An online survey was sent to 400 parents and coaches. Thirty parents and four coaches ($N = 34$) completed the survey. The survey contained demographic questions and 24 statements using a 5-point scale. Sections (a) *Understanding of Potential Injuries and Illnesses*, and section (b) *Perceptions of Athletic Trainers*, asked participants to rate statements from 1 "strongly disagree" to 5 "strongly agree". The third section, (c) *Medical Care and Training to Help Protect Athletes*, asked participants to rate the importance of statements from 1 "not important" to 5 "very important". Means, standard deviations, frequencies and percentages are reported.

Results

All participants (100%) "agreed" or "strongly agreed" with the statement *I understand the possible injuries my child could sustain while playing sports* ($M = 4.76$; $SD = .43$). Twenty-eight participants (82%) "agreed" or "strongly agreed" the *health and wellness of player is important to league* ($M = 4.20$; $SD = .729$). Twenty-five participants (73%) "agreed" or "strongly agreed" they *were provided literature about concussions* ($M = 3.91$; $SD = 1.31$). Twenty-four participants (70%) "strongly disagreed" or "disagreed" *the program provided them with in-person training about on-field healthcare related issues* ($M = 2.00$; $SD = 1.01$). Twenty-five participants (73%) "agreed" or "strongly agreed" *ATs are knowledgeable about prevention of injuries* ($M = 4.05$; $SD = .851$); *evaluation of injuries on the field* ($n = 29$; 85%; $M = 4.29$; $SD = .871$); *treatment of injuries and illnesses on the field* ($n = 28$; 82%; $M = 4.35$; $SD = .849$); and *concussion protocol and evaluation management* ($n = 27$; 79%; $M = 4.15$; $SD = .892$). Twenty-eight participants noted it was "important" or "very important" for coaches to have *First Aid* (86%; $M = 4.5$; $SD = .788$), *CPR/AED* ($n = 27$; 80%; $M = 4.35$; $SD = .981$), and *concussion training* ($n = 32$; 94%; $M = 4.85$; $SD = .500$).

Discussion and Implications

The pilot data revealed parents and coaches feel they understand the risk associated with youth sport participation and that player health and safety is important to the program. Although, parents reported not receiving any training regarding health-related info from the program. This suggested an opportunity for recreation practitioners and youth sports providers to create education and training tools for parents and coaches about on-field injuries and other healthcare related issues related to youth sports participation. The findings also suggested Athletic Trainers may be able to help fill part of this role because of their knowledge base by providing training for parents and coaches, as well as providing healthcare to youth sports participants. Parents also felt it was important for coaches should have First Aid, CPR/AED and concussion training, similar to a survey noting parents demanded better training of coaches in order to ensure the safety of players (The Aspen Institute, 2018). Future studies are recommended exploring a larger sample of parents and coaches from other town lacrosse leagues. In addition, a similar study should be conducted exploring youth sports parents and coaches' perceptions of player health and safety in other sports programs.

Application to Practice Outcomes

Practitioners will be able to:

1. List trainings and certifications for coaches and referees that are important to parents of youth sport players.
2. Identify three areas where athletic trainers could support youth player health and safety.
3. Describe opportunities for educational and training tools related to on-field healthcare issues.

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Table 1
Statement Ratings (Agreement): Means and Standard Deviations

Statement	Mean	SD
I understand the possible injuries my child could sustain while playing sports.	4.76	0.43
AT's are knowledgeable in treatment and injuries on the athletic field	4.35	0.85
AT's are knowledgeable in evaluation of injuries on the field	4.29	0.87
The health of my child is important to the youth rec league	4.20	0.73
AT's are knowledgeable in concussion evaluation and management	4.15	0.89
AT's are knowledgeable in preventing injuries	4.05	0.85
I am provided literature about concussions	3.91	1.31
The program provides me with in-person training about on-field healthcare related issues	2.00	1.01

Table 2
Statement Ratings (Importance): Means and Standard Deviations

Statement	Mean	SD
Coaches must have concussion protocol training	4.9	0.50
Coaches must have first aid training	4.5	0.79
Referees have First Aid/CPR/AED	4.5	0.79
Coaches must have CPR/AED training	4.4	0.98

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POCKET PARKS: DEVELOPED SPACE TO PLAY IN URBAN ENVIRONMENTS

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Introduction

Developing park spaces in urban communities has become a priority for city parks officials. The desire to rejuvenate neighborhoods and to provide residents with a healthy space to experience leisure resulted in city development of pocket parks (Branas, et al., 2011). A pocket park is a small greened space, usually less than 1 acre, that is designed to serve people in immediate, surrounding neighborhoods. Pocket parks typically are un-programmed space, not staffed, and have minimal equipment and amenities, making them highly desirable from a maintenance standpoint. Yet, other than size requirements, there is no specific definition of a pocket park. There is also limited information available related the utility of the parks themselves. There is some evidence that pocket parks can serve as restorative environments for visitors (Peschardt & Stigsdotter, 2013); that visitors primarily utilize these spaces for socializing and mental restoration (Peschardt, Stigsdotter, & Schipperrijn, 2016); and that walking to the park (rather than the park itself) promotes physical activity (Cohen, et al., 2014). They provide residents with a healthy space to work-out or experience leisure, and attempt to reduce neighborhood crime (Branas, et al., 2011). Yet little else is known about the benefits of pocket parks for local communities. Therefore, the purpose of this study is to learn more about the utility of pocket parks in an effort to aid in the future development of more pocket parks and to further understand their role in the overall municipal park system.

Methods

There are approximately 26 pocket parks located in the City of Long Beach (City of Long Beach, n.d.). Using archival and observational data (Creswell, 2012), we researched the distribution of pocket parks within the city and categorized the amenities available at each park. We also visited each park numerous times and conducted point in time observations to learn more about who was using the parks and for what purpose. Systematic observation has been a widely accepted method for examining park activity and visitor behavior in parks (McKenzie, et.al, 2006; Joseph & Maddok, 2016; Benton, et.al, 2020). This data allowed us to generate conclusions around the utility of each of the parks and to make recommendations for future park developments. This data also allowed for a more in-depth definition of pocket parks to be created. Finally, we cataloged each of the amenities available at the parks such as playground equipment, park benches, picnic tables, basketball courts, and open space.

Results and Recommendations

Archival data collection resulted in the categorization and creation of in-depth description of each of the 26 pocket parks in the city. The most common amenities included playground equipment (58%), picnic benches (58%), and open space (58%). Also, parks that had toddler style playgrounds had high visitation, however, parks that had no play equipment were also well attended. Yet, these amenities were not found at the same parks and there is no correlation between size of park and amenities included.

This presentation includes mapping of the city parks and data charts of the amenities at each park to aid in describing the parks activities.

The results of this study may assist park planners and developers when designing future parks. Data analysis resulted in the following recommendations:

1. Include seating that faces some sort of view or natural landscape.
2. Allow for multiple seating types such as benches for multiple people and seating that allows for individuals alone.
3. Include some sort of green landscape vs. brown ground cover where possible.
4. Entrance gates and fencing, if necessary, should be decorative to add to the design of the space, instead of perimeter security-style fencing.
5. Since the parks are neighborhood specific, consider current and future populations to determine if a playground is necessary, since it takes up a lot of potential open space in a small area.

Conclusion

The information presented in this study is important as park professionals work to develop more park space for city residents to enjoy. Though there has been great interest in the addition of pocket parks in urban areas in California, little is known about how these spaces actually benefit park visitors and how to best develop urban spaces for resident use. This study was a first step in identifying how municipal agencies can intentionally create and develop usable pocket park spaces that benefit local residents. Greater understanding of how pocket parks are used and accessed will make it easier to justify further growth and development for park managers.

Application to Practice Outcomes

After viewing this presentation, participants should be able to:

1. Describe the importance of utilizing intentional design when developing pocket parks and when choosing which amenities to include.
2. Determine the importance of including neighborhood users and partners when successfully designing a park.
3. Explain who is using the pocket parks and for what purpose.

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II. MANAGEMENT & ADMINISTRATION

PARENTS' PERCEPTION OF COACH'S EDUCATION OF SPORTSPERSONSHIP TO PROGRAM VALUATION

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Introduction/Rationale

Sports are a vital aspect of the American culture (Davidson & Moran-Miller, 2005) and over 60 million youth participate in some form of organized youth sport program annually (Brinton, Hill, & Ward, 2017; "The Big Business", 2018). The re-purchase of leisure services is highly influenced by overall perceived service valuation (Hume & Mort, 2010). Sportspersonship has been continuously identified as a desired developmental outcome by both youth athletes and their parents though participation in a youth sports program (Martin, Dale, & Jackson, 2002; Schwab, Wells, & Arthur-Banning, 2010). With parents controlling the decisions regarding which programs their child will participate in (Green & Chalip, 1998), their perceptions of the coaching behaviors of their child's coach should be assessed as a contributor to overall purchase valuation, particularly as coaches are recognized as having the biggest influence on a young athlete's experience (Horn, 2002; Wiggins, 2013). Combining parental desires for their child to develop sportspersonship through participation and youth sports and coaches as being one the largest influences on youth athletes', this study sought to evaluate what coaching behaviors influenced parent valuation of a municipal youth sport program.

An appraisal emotion/outcome to value relationship is the basis of the conceptual model as a consequence of program delivery that leads to repurchase intention (RI) (Bagozzi, 1997; Taylor, 2000). There has been limited research of the role of specific program outcomes to valuation assessments in youth sports programming Participatory services that are interactive in nature and fulfill emotional outcome goals (Bagozzi, 1997; Huang, 2001) influence RI and repeat consumption. Prior investigations have found these to be crucial elements of determining customer perceived value in experiential and participatory services (Addis and Holbrook, 2001).

The investigation examined specific coaching behaviors that have been recognized as influential in the development of sportspersonship as part of character development (Bolter & Kipp, 2018; Bolter, Kipp, & Johnson, 2018; Bolter & Weiss, 2013); and seeks to identify if this specific provision positively influences the parents' valuation of the youth sport program. Jones and Shu (2000) identified perceived leisure service value to have a direct encounter-specific relationship with the fulfillment of an expectation, and that perceived value is an important indicator of repurchase intent (Patterson et al., 1997; Sweeney et al., 1999; Zeithaml et al., 1988; Voss et al. 1998).

Methods

Upon approval from the institution's IRB, parents that attended two youth sporting events (N= 700) were approached prior to the start of a game that occurred either the last week of regular season action or at the end-of-season tournament, resulting in a sample of 222.

Measure

The survey instrument used for this analysis was developed specifically for the purposes of this study was adapted from previous coaching behaviors research (Beldon & Walker, 2019; Bolter & Kipp, 2018), motivations for sport participation (Martin, Dale, & Jackson, 2002; Schwab, Wells, & Arthur-Banning, 2010), and leisure service valuation (Hume & Mort, 2010). The instrument included items measuring the parent's perception of the coach's education of sportspersonship (instructing, modeling, emphasizing, rewarding) and an overall program valuation measure. Initial descriptive analysis revealed normally distributed data.

Results

Similar to previous research using the coaching behavior items, all items that discussed similar coaching behaviors were aggregated together (Bolter & Kipp, 2018; Bolter, Kipp, & Johnson, 2018; Bolter & Weiss, 2013). Analysis of Cronbach alpha coefficients provided support for the aggregation of the variables as each aggregated behavior had a coefficient greater than .82. In order to address the research question of the parent's perception of the coach's education of sportspersonship providing a positive influence on the parent's perceived value of the youth sport program, a regression analysis was conducted. Results of the linear regression indicated that parent's perceptions of coaching education of sportsmanship was statistically significant ($F(1, 138) = p < .005, R^2 = .07$). The aggregate measure of parents' perceptions of the coach's education of sportspersonship explained 7% of parents perceived value of the youth sport program, with an adjusted explanation due to a sample size of roughly 6%, which indicates minimal shrinkage due to sampling error.

Application to practice outcome

Through the results of this study, sport administrators can recognize and articulate the need to provide coach-training seminars on educating sportspersonship for their programs to help increase participant retention. Sport administrators can also improve their coach training by relaying the message that parents desire their child develop sportspersonship actions. Furthermore, sport administrators can use this scale to assess parents' perceptions of their youth sport program coaches and provide in-season or post-season feedback. Further exploration is necessary to understand what other factors go into parental valuation in youth sports.

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EXPLORING INDICATORS OF DOG PARK SUCCESS: FEEDBACK FROM USERS AND NON-USERS

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Introduction

Dog parks have grown by 76% since 2009 and are among the fastest-growing type of urban park amenity in the U.S. (Trust for Public Land [TPL], 2019). Researchers have reported the number dog parks to be upwards of 2200 (Urbanik & Morgan, 2013), while over 3,000 are listed in bringfido.com. Dog parks have generally experienced rapid growth over the last few decades. Greater numbers of people are requesting dog parks as standard city amenities. The growth reflects national trends in dog ownership and interest in dog parks. In 2018, *Leisure Studies* printed a special issue (Volume 38, Issue 3) titled, “Multispecies Leisure: Human Animal interactions in Leisure Landscapes.” In November of 2018, a special issue in *Parks & Recreation* was devoted to dog parks and changed the magazine title to *Barks and Recreation*.

Importance of the Study

Due to population density and urbanization in the U.S., there has been a consistent increase in the demand for dog parks (Gómez, 2013; Harnik & Bridges, 2006). Today, there are over 2200 dog parks in the U.S. (Urbanik & Morgan, 2013). According to Matisoff and Noonan (2012), “Despite the rapid growth in the number of dog parks, dog park facilities tend to be over-crowded and in high demand for expansion” (p. 29). These trends indicate that interest in dog park development and research is growing, dog park expansion is in demand, national standards for dog park basics are lacking, and funding may be scarce. As such, there is a need to know what makes dog parks successful and there has been no study directly asking residents “What are the ‘must haves’ for dog park success”? This study explores residents’ key indicators of dog park success.

Methods

Given the various constituent groups interested in having a successful dog park, there was an interest in different approaches to target a multitude of audiences. In consultation with Norfolk, Virginia’s Recreation Parks and Open Spaces (RPOS), data collection included: (a) targeted neighborhood data collection around six fenced-in dog parks, (b) onsite data collection at dog parks, (c) and online data collection. Data were collected in the summer of 2017. An attempt was made to increase representation by alternating the time of day the dog parks were visited weekdays and weekends. Original items specific dog park success came from the Program in Veterinary Behavioral Medicine (n.d.), University of California-Davis. These researchers mentioned most of the 20 items used to identify successful dog park characteristics in the current study (e.g., safety, noise, sanitation, location, maintenance, substrate, rules, and dog park clubs), based on feedback from managers and dog park users, as well as observations at the dog park. Other items came from Norfolk’s RPOS staff. Items were rated on a scale from 1 (Not Important) to 10 (Extremely Important).

Results

Total surveys collected: $N = 1510$. The majority of residents were dog owners (77%). However, we distinguished between dog owners who visited the dog parks (48.7%) as dog park users (DPU), and those who did not (28.3%). User type was determined by respondent self-identification. Nearly a quarter (23%) of respondents were not dog

owners/non-users. Just over half the study (51.3%) identify as non-dog park users (NDPUs). The percent breakdown and averages by each response to the 20 success questions were assessed. More similarities than differences were found between NDPUs and DPUs. For DPUs, the top five dog park success indicators were (in order of importance/rank): fence, water, safety for dogs, picking up poop, and maintenance. For NDPUs, the top five dog park success indicators were (in order of importance/rank): fence, picking up poop, safety for dogs, maintenance and rules. As one can see, the two groups only differed on water and rules.

Application to Practice

Dog park users (DPUs) and non-dog park users (NDPUs) showed remarkable consistency in the top five success markers. By far the most important indicator of a dog park is the fence. Both NDPUs and DPUs felt very strongly about the importance of having a fence. While this may seem obvious, it is a very relevant indicator of success. The non-fenced dog parks were not being used because off-leash dogs can be unpredictable, so bringing them to a space that is not fenced in could be problematic – for the dog, the owner, the neighborhood residents, and the municipality. Some residents did not consider the non-fenced dog park to be considered a dog park, but rather more like a “free run” area. The success indicator that ranked second was picking up poop. Having pooper scoopers, plastic disposable bag dispensers, and regular park clean-ups by association members typically improves the success of the dog park. The policing by the dog park association was an extremely successful step in solving dog waste issue in Tucson, AZ, where Avrasin (2003) quoted the park administrator as saying that the “only place you don’t have to worry about dog droppings is in a dog park” (p. 55). If steps are taken to be vigilant, thoughtful and proactive about dog waste, a dog park could be successful, and allay fears related to dog waste. Safety for dogs was the third ranked dog park success item. DPUs ranked safety significantly higher than NDPUs. The primary issue with respect to safety for dogs is aggressive behavior, which is reinforced by irresponsible dog owners. Dog owners need to protect against bullying at the dog park. Arhant, Huber and Toxler (2011) found deterrence in aggressive behavior at a dog park was more about the vigilance of dog owners than about the dogs themselves. Water was the fourth ranking item affecting the success of dog parks. There should be a water fountain for dogs and people. Preferably, water fountains should have an upper level for people and a lower level for dogs. Planning for a successful dog park should include water for drinking as a basic or standard amenity, but also may include a possible water feature for dogs to cool off or play in (e.g., fill up a kiddie pool). Maintenance was the fifth most important aspect of a successful dog park. Like playgrounds, baseball fields, or golf clubs, most residents seek to maintain an aesthetically pleasing space/resource. A clean environment included factors such as the availability of bags to pick up dog feces, trash cans or receptacles, and general upkeep of the dog park. Additionally, if the dog park has agility equipment or benches, these need to withstand urination, clawing, and jumping. The sixth most important aspect for successful dog parks is a set of rules. Are rules posted in an easy to see place? Are they enforced? Who do you contact with questions? Who makes the rules? Answers to these questions will lead to better success at the management of a dog park. Another important tool for the rules are DPUs themselves. Much like self-policing poop, DPUs self-regulate. The point of signage should not be punitive, but rather emphasize positive messages to encourage responsible behavior by DPUs, with the

intent to facilitate/improve relationships within the local community or neighborhood. The study findings provide valuable insight into users and non-users. Overall, the results suggest that users/nonusers and dog owners/non-dog owners have similar views on successful markers of a dog park. This is important to know because even if residents do not use the dog parks, they have expectations and perceptions related to what should be there, especially if public dollars are funding the dog park.

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DISASTER PREPAREDNESS AND RESPONSE: THE ROLE OF PARKS AND RECREATION

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Rationale

With climate change and urbanization, natural disasters are increasingly impacting the safety of humans and property. Public lands serve as buffers and places of refuge for recovery efforts following a natural disaster. The COVID-19 epidemic has revealed that parks and public spaces, and the programs offered there, are essential elements during a public health emergency as well. The purpose of this study was to understand the current role of parks and recreation and other agencies in preparing and responding to disasters. While this study was not based on a true random sample or statistically valid survey, the results provide insight into the current role of parks and recreation providers in disaster response. Though conducted prior to the current COVID-19 virus, the results may prove useful to those navigating the pandemic environment. The findings indicate that while park agencies are key players in disaster response/recovery, they receive relatively little training and funding to prepare them to deal with such events. The COVID-19 crisis has revealed the importance of disaster training and preparation. The results of the survey provide evidence that agencies might use to petition for such funding and training.

Methods

An online questionnaire was used to collect input on the roles of park agencies and other local providers in responding to natural disasters. An invitation to participate in the survey was initially emailed to a list compiled by the non-profit organization GP RED containing approximately 4000 addressees in the parks and recreation, public health, and related fields. A second reminder was sent later to the same list. Recipients were allowed to forward the invitation on to others, but it is not known how many did so and to whom it was forwarded. All responses received from all sources were included in the results. At least one state parks and recreation association (New Hampshire Parks and Recreation Association) is known to have sent it to their members.

A total of 77 responses were received. Because it is not known how many individuals received the survey, it is not feasible to determine a response rate. Of the responses received, 75% were from individuals who identified themselves as members of the parks and recreation field, 7% were from the planning field, 6% were from education and 4% were from public health. The remainder identified themselves as being in "recreation," "open space," "environmental planning," or "public assembly."

While not intended to be a true random sample or statistically valid, the results provide insight into the current role of parks and recreation providers in disaster response. A variety of question formats, including open-end responses were used in the survey.

Results

Note that the survey was conducted prior to the COVID-19 epidemic. Key findings include the following:

- A majority (58%) said that they or their agency had been affected by or responded to a major disaster in the past ten years.
- The types of disasters addressed included extreme weather events, wildfires, earthquakes, toxic spills, and a gas leak/explosion.
- Shelter management (54%) and damage assessment (51%) were the most common roles that agencies played in the disaster events. Rebuilding (39%) and recovery (36%) were also common. Distribution of meals (13%) and evacuation/house checks (8%) were mentioned. “Other” roles indicated by 25% of respondents included such things as search and rescue, road clearing and debris management, communications, and fundraising.
- A majority (64%) of the agencies represented have NOT received training or preparation for an emergency or disaster in the past three years.
- Limited staffing (91%) and financial obligations (84%) were listed as the primary barriers faced by agencies in providing disaster services. Others included time commitments (64%), adequate training (55%) and logistics and planning (46%).

Discussion

This study was intended to capture the general scope and extent of the role that park and recreation agencies (P&R) provide in a natural disaster or other such emergency. Because it was conducted prior to the COVID-19 epidemic, the results may not reflect the most current information on this subject but they indicate that P&R agencies were important components of disaster preparedness and response capacity even before the pandemic brought their role to the forefront. The study shows that P&R agencies are involved in a wide variety of disaster/emergency responses. It also identified the key limitations of time, money, and staff resources needed to address disasters that existed prior to COVID-19. While bringing the roles of P&R agencies to the forefront, the pandemic has placed additional stresses on these agencies, exacerbating the effects of those limitations. This study suggests the potential for additional and more rigorous study to provide accurate data on how P&R agencies fit into disaster preparedness and recovery and determine what is needed to allow these agencies to perform at their highest possible levels.

Applications to Practice

The results can be used by agency managers to compare themselves with what other agencies are doing to prepare for and respond to natural disasters and other local emergencies. It may also support requests for funding, staffing, and training to prepare for such events. Academics may find this pilot study useful in framing further studies into the topic of disaster/emergency response as it relates to local service agencies.

Outcomes

Participants will be able to –

- Describe the role of park agencies in disaster response and recovery.
- Explain the need for training and funding to prepare their local park agency for future natural disasters to policymakers.
- Benchmark their own agency against the range of events that park agencies typically respond to and the actions they take responsibility for when disasters occur.

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PERFORMANCE APPRAISALS: ROLE OF EMPLOYEE PARTICIPATION & SUPERVISOR TRUST

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Introduction: Performance appraisals are used to measure employees' performance and provide agencies with information that can guide administrative and developmental decision-making about their staff. Despite their prominence and popularity, performance appraisal systems are often an area of controversy within an agency. Issues surrounding the system's poor design and administration have been identified in the literature to negatively impact employee motivation (see Kim & Holzer, 2016). Scholars have suggested these frustrations might be linked to the social dimensions surrounding the appraisal system, suggesting that performance appraisal systems do not operate in a vacuum; rather, there is a social context in which these systems function in agencies (see Ayers, 2015; Harrington & Lee, 2015; Mulvaney, McKinney, & Grodsky, 2012; Park, 2014). Getting employees more engaged in the performance appraisal system's development, implementation, and administration has been suggested as a possible method to improve the effectiveness of these systems. The purpose of this study was to examine the role of employee participation and supervisor trust in employee reactions toward a performance appraisal system. Drawing from Social Cognitive Theory's reciprocal determinism model (see Bandura, 1991), this study sought to build upon the existing employee participation research by discussing the purposes and common types of performance appraisals and exploring the cumulative effects of employee participation at various stages (job analysis, instrument development, appraisal interview, and training related to the appraisal system) in the appraisal system's development, revision, and implementation. In addition to employee participation, recent research has also suggested the influential presence of process proximal social context factors on the utility of the appraisal system with links found between employees' perceptions of their supervisor and their reactions to the agency's performance appraisal (Bryne, et. al., 2012; Pichler, 2012). Guided by these findings, this study also sought to examine supervisor trust in employees' reactions to the system.

Methods: Drawing from the tenets of Social Cognitive Theory and the existing appraisal research, six hypotheses were developed: *Hypotheses 1-3: Employees who have higher perceptions of supervisor trust will be more satisfied with (a) the overall appraisal system; (b) the appraisal interview session, and; (c) will have higher procedural and distributive justice perceptions with the appraisal system compared to employees who have lower perceptions of trust in their supervisor. Hypotheses 4-6: Employees who perceive to have higher levels of participation in development, implementation, and administration of an agency's pay-for-performance appraisal system will be more satisfied with (a) the overall appraisal system; (b) the appraisal interview session, and; (c) will have higher procedural and distributive justice perceptions with the appraisal system compared to employees who perceive to be less involved in these appraisal activities.* 1,000 full-time public park and recreation professionals from the Illinois Park and Recreation Association (IPRA) membership database were randomly selected and invited to participate in the study. Data collection occurred in February 2020 with an email sent to 1,000 full-time public park and

recreation professionals and all of the study's variables were measured using an online survey and were derived from existing scales (Keeping & Levy, 2000; Nyhan & Marlowe, 1997). Reminder emails were sent to the participants, resulting in 239 respondents completing the survey (23.9% response rate). Initial data analyses included examining the data for missing values, multivariate outliers, linearity, normality, homoscedasticity, & multicollinearity. Scale reliability analyses were also conducted for the three appraisal reaction scales as well as the supervisor trust scale with coefficients ranging from .90 to .94. Hierarchical regression analyses were computed to test the study's questions. Two professional characteristic variables (job position and years employed with current agency) were entered in the first block of predictor variables, followed by the supervisor trust variable and employee participation.

Results: The regression analyses indicated supervisor trust and employee participation significantly contributed to public park and recreation professionals' satisfaction with their appraisal system, satisfaction with their appraisal interview, and their procedural and distributive justice perceptions with their appraisal system (Tables 1-3). Thus, all six hypotheses were supported, indicating that professionals who had more trust in their supervisor were more likely to be satisfied with their agency's appraisal system. Furthermore, professionals who were more involved with the development of their agency's appraisal system were more satisfied with the system.

Discussion & Implications for Practice: Overall, a couple of major findings emerged from this research study. First, the data highlights the powerful effect of employee participation in various stages of the performance appraisal process on employees' reactions to the system. From the job analysis phase to the appraisal planning, the findings suggest agencies should get their employees involved. As an example, agencies may wish to get employees engaged in the job description development/revision process. Recognized as a cornerstone in the development of a valid and legally defensible performance appraisal plan, the job analysis and job description development process provides a clear definition of job specific performance that can guide the creation of an appraisal instrument (Milkovich, Newman, & Gerhart, 2010). The current study suggests getting employees involved in this foundational activity could also promote an appraisal system that is more supported by staff. A second finding that emerged from the study was the collective support for supervisor trust on employees' appraisal reactions. Specifically, significant effects were found for supervisor trust across all three appraisal reaction levels. These findings are supported by the research that has found links between employee-supervisor relationship characteristics and work-related outcomes of job satisfaction, morale, motivation, and performance (Callier, 2014; Pichler, 2012). While the study's findings highlight the importance of supervisor trust and employee involvement throughout each phase of the performance appraisal system, it is also worth noting that it is unlikely that supervisor trust and employee engagement alone will resolve all issues surrounding the appraisal system's design and implementation. Rather, agencies should be intentional in their efforts to promote employee participation and supervisor trust while also incorporating the needed key elements of a performance appraisal system (i.e., job performance definition, job analysis, job specific instruments, rater training, etc.).

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Table 1. Hierarchical Linear Regression Analysis Summary Table for Employees' Overall Satisfaction with the Performance Appraisal System

Block	Variable	R ²	Δ R ²	F	p	B	SE	T	p
1	Years worked w/the agency					-.01	.04	-.32	.75
1	Job position	.00	.00	1.28	.28	.65	.41	1.58	.12
2	Supervisory Trust	.17	.17	11.72	.00 _a	.17	.03	5.67	.00*
3	Employee Participation:	.20	.03	10.48	.00 _a	.16	.07	2.38	.02*

* p<.05

Table 2. Hierarchical Linear Regression Analysis Summary Table for Employees' Satisfaction with the Performance Appraisal Interview

Block	Variable	R ²	Δ R ²	F	p	B	SE	T	p
1	Years worked w/the agency					.01	.05	.18	.86
1	Job position	.01	.01	1.42	.25	.69	.46	1.49	.14
2	Supervisory Trust	.16	.15	10.75	.00 _a	.18	.03	5.38	.00*
3	Employee Participation:	.23	.07	12.28	.00 _a	.28	.08	3.74	.00*

* p<.05

Table 3. Hierarchical Linear Regression Analysis Summary Table for Employees' Perceptions of Procedural & Distributive Justice with the Performance Appraisal System

Block	Variable	R ²	Δ R ²	F	p	B	SE	T	p
1	Years worked w/the agency					.02	.12	.13	.90
1	Job position	.00	.00	.17	.84	.66	1.23	.53	.60
2	Supervisory Trust	.23	.23	12.78	.00 _a	.53	.09	6.15	.00*
3	Employee Participation:	.29	.06	13.63	.00 _a	.66	.19	3.52	.00*

* p<.05

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VISITORS' PROFILE, INTEREST AND MOTIVATION FOR A NATURE-BASED RESORT DESTINATION

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Introduction

A nature-based destination has been defined in terms of providing a range of experiences that are primarily dependent on nature (Holden & Sparrowhawk, 2002; Meng & Uysal, 2008). Visitors' profile and characteristics of their visit are important variables in explaining recreation activity patterns at nature recreation settings (Hughes & Morrison-Saunders, 2003; Togridou, Hovardas, & Pantis, 2006; Roovers et al., 2002). By learning visitors' recreation interests and motivations, the offerings can be customized to appeal to the targeted segments of the market. It is paramount to have very satisfied visitors for positioning a resort and to develop competitiveness and customer loyalty (Wong, 2011). For this study a nature-based resort in Southwest Oklahoma serving as a destination for leisure, family reunions, destination weddings, and corporate events has been used with the purpose of examining visitors' profile, interests, motivations, and overall satisfaction.

Methods

Data were collected using an online questionnaire completed by voluntary visitors to the resort. In-state and out-of state visitors were invited to participate in the study through different means, including email list, social media, and on-site cards with URL or QR code to access the online survey. The questionnaire included standard demographic questions, characteristics of the visit, and questions related to visitor motivations and satisfaction. Motivation and satisfaction questions were based on a previous study conducted on a nature-based resort (Meng, Tepanon, & Uysal, 2008), and were modified to apply to the specific characteristics of the research site. A list of 12 motivation items was rated on a five-point Likert scale ranging from 1 "not important at all" to 5 "very important". Visitor satisfaction was measured by two questions: "willingness to recommend" and "level of satisfaction with most recent visit". Using a five-point Likert scale from 1 "definitely would not recommend" to 5 "definitely would recommend", and 1 "very dissatisfied" to 5 "very satisfied" respectively. The data were analyzed using descriptive statistics and factor analysis. Factor analysis was conducted to identify the visitor motivation dimensions. Cronbach's alpha reliability coefficient was calculated. The data were analyzed using statistical SPSS software.

Results

From a total of 461 respondents, 57% were females and 43% were males. The average age of the respondents was 53.6 years, with 79% being older than 45 years old. The majority of respondents reported having at least some college degree or higher level of education (72%). Over 73% of the respondents were repeat visitors and 85% were staying overnight. Regarding group size, 50% of respondents were in groups of four or more, while 40% reported to be with one more individual. Family vacation and leisure travel were reported as the main purpose of visit to the nature-based destination (43%). Business meeting or conferences (17%) and special events such as weddings or reunions (16%) were also reported by respondents. The results revealed that activities for "seeing and doing" followed by "relaxation/familiarity" with the area, "family/friend togetherness", and "site uniqueness" were the most important motivations for visitors (Table 1). About

90% of the visitors were satisfied with their visit and 87% would recommend the destination to family and friends.

Discussion

The findings showed that almost 80% of the current market were people over 45 years old. This indicates that a younger market might be attracted to other nature-based destinations which offer different types of attractions, recreational activities, and/or services. In order to diversify the market some marketing strategies are recommended such as promotions (i.e. a free stay for a person who brings a group of people, a visitor loyalty program, a giveaway), finding ideal channels to reach a younger segment (i.e. social media and a website that appeals to their preferences and is updated and reviewed on a regular basis), offering new activities appropriate for younger individuals and emphasizing quality service (i.e. responding promptly to their needs and/or complaints, show empathy with visitors). In regards to motivation, their responses indicated that the main motivation for visiting this nature-based resort was "activities for seeing and doing". Therefore, it is important to keep offering a variety of recreational activities that are nature-related since this is what makes this a unique destination. Another suggestion is to provide activities to foster the interaction with their loved ones to improve their bonding and to form fun memories that may influence repeat visitation as well as their willingness to recommend the destination to others for increasing market. Furthermore, findings showed a certain level of visitor dissatisfaction which might not only depend on the natural scenery, but other factors related to destination attributes, such as quality of lodging facilities and amenities which should be of concern for management.

Implications for practice

The findings of this study can be useful for both recreation and tourism practitioners to understand the importance of distinguishing different market segments for nature-based tourism and thus, improving their recreational offerings for current and potential visitors. Lack of information on the profile of visitors can impact recreation agencies when it comes to identifying their target markets and marketing strategies (Mohamed, Afandi, Ramachandran, Shuib, & Kunasekaran, 2018). Measuring visitor satisfaction plays a significant role in marketing tourism products and services since high quality services and customer satisfaction are important determinants of destination competitiveness (Caber, Albayrak, & Matzler, 2012). Findings of this study suggest that destination managers at nature-based resorts should identify the profile of their visitors and their motivations, as well as gauging their satisfaction in order to maintain a sustained and expanding business.

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Table 1.

<i>Table 1. Factor analysis on visitor motivations dimensions. Factors' Eigenvalue; Explained Variance and Cronbach's alpha are shown in parentheses. Total variance explained 65.29%.</i>	
Factor 1: Activities for seeing and doing (3.8257; 20.34%; 0.7095)	Factor loading
Active recreation (i.e. hiking, biking, climbing)	0.7780
Fun and enjoyment	0.7322
Taking a carefully and completely planned trip	0.6121
Visiting new places	0.5064
Romance or a romantic setting	0.4124
Factor 2: Relaxation/familiarity (1.3438; 17.86%; 0.6965)	
Having time by myself	0.8449
Passive recreation (i.e. rest and relaxation)	0.7690
Visiting familiar places/return visit to the nature-based resort	0.5186
Factor 3: Family/friend togetherness (1.1691; 17.37%; 0.7073)	
Visiting friends and relatives	0.9009
Being with family members	0.7384
Factor 4: Site uniqueness (0.8465; 9.72%; 0.6970)	
The art in the buildings and park	0.8990

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PARENT SIDELINE BEHAVIOR AT YOUTH SOCCER GAMES

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Introduction

In addition to serving a number of practical roles in the production of youth sport (e.g. financier, coach, transportation), parent behaviors influence youth development within the sport context. In general, parental encouragement, warmth, support, and a focus on skill building relates to increased player enjoyment, leadership, goal setting, and life skills, while parental pressure predicts decreased enjoyment and motivation (DeFreese, Dorsch, & Flitton, 2018; Kanters, Bocarro, & Casper, 2008; Mossman & Cronin, 2019; Sanchez-Miguel, Leo, Francisco, Sanchez-Oliva, Amado, & Garcia-Calvo, 2013). Parent behaviors also influence youth motivation (Gomes, Gonçalves, Dias, & Morais, 2019). Overall, youth tend to prefer parents who are attentive, and offer positive cheering, encouragement, and empathy while not providing technical advice (Elliott & Drummond, 2017; Knight, Boden, & Holt, 2010; Omli & Wiese-Bjornstal, 2011). Though parents are likely generally well-intentioned, parents experience intense emotions related to their child's participation (Legg & Rose, 2019), and those emotions may lead to poor parent behavior. Though parents often profess goals related to positive youth development, their verbal sideline behaviors may not align with those goals (Dorsch, Smith, Wilson, & McDonough, 2015), with one study reporting that over two-thirds of youth sport parents had experienced anger while watching their child play sports (Omli & LaVoi, 2012). However, parents may be unaware of these negative emotions and reactions and how they impact their child (Goodman & James, 2017). In response, organizations have developed parent-training programs to assist parents in navigating their behaviors in the youth sport context. Despite this proliferation, limited research exists that examines such program's efficacy (Dorsch, King, Dunn, Osai, & Tulane, 2017). The Sideline Project is an example of such program that strives to improve soccer parents' sideline behavior, coach-parent relationships, and selected youth developmental outcomes. The primary purpose of this research was to create an observation measure to examine the sideline behavior of parents with a focus on what potential improvements can be made for the effectiveness of The Sideline Project.

Methods

A total of 58 youth soccer games were observed in this study. The observation instrument was adapted by Dorsch and Smith (2015), who examined parent goals and verbal sideline behavior in organized youth sport using a matrix of six behavior categories. Items were condensed into four categories based on the specific purposes of this project with an additional area for open ended comments. Observers trained by the lead researchers piloted and tested the observation measure. Adjustments were made subsequent to pilot testing. Data was recorded through the Qualtrics phone app where observations could be made discreetly throughout the duration of local youth soccer games in five-minute increments by one observer per game.

Results

Parent sideline behavior was classified under four behavior categories: 1) praise/encouragement, 2) performance contingent, 3) instruction, and 4) negative/derogatory. Praise and encouragement comments were general supportive

comments (i.e. praise) and encouragement. Comments did not include specific performance-related feedback. Performance contingent classified comments that were intended to improve a child's performance and behavior. These comments were more controlling statements that included specific performance-related feedback. Instructional comments were direct commands that are usually yelled as the child should have completed a play, or shortly after. This classification differed from performance feedback because instruction is not based on performance, rather intended to provoke action. General negative comments were those intended to be more controlling in nature. Derogatory comments are directed towards a play that could potentially be damaging to the child. From the total of 58 games, an average of 95 comments were made in a thirty-minute time period. 45% were praise/encouragement, 19% were performance contingent, 32% were instruction, 3% were negative/derogatory, and only 1% of the total comments were directed at the referee (Table 1). Observation notes were made in addition to tallying the comments made. We found the following themes:

- Females directed a majority of the comments
- Males were more vocal to female players
- Coaches displayed multiple instances of arguments and negativity

Applications to Practice

Results suggest that most of the comments parents made on the sidelines of youth soccer games were praise and encouragement. The results also indicated that parents provide a similar amount of instructional comments on how to complete a play. Additionally, it also supports the importance of coach's behavior. Given that parents influence youth motivation (Gomes, Gonçalves, Dias, & Morais, 2019), a better understanding of how to provide positive cheering, encouragement, and empathy in place of providing technical advice (Elliott & Drummond, 2017; Knight, Boden, & Holt, 2010; Omli & Wiese-Bjornstal, 2011) is needed. One way to do this is by implementing a parent and coach education program that involves both online training and specific tasks that participating teams are asked to complete (e.g. parent meetings, pre-game huddles, and ongoing coach/parent/education). For example, material might include 1) educate parents and coaches about the different types of sideline communication; 2) eliminate instructional communication from the sidelines; 3) support a healthy relationship between coaches and parents; and 4) help parents be aware of and eliminate distracting communication from the sidelines.

Parks and recreation departments should consider implementing a parent and coach education program that addresses the relationship between parent sideline behavior and identified youth outcomes. Practitioners should develop a connection to parental engagement with parent educational materials that fits the needs of their community with specific emphasis on the differences between praise and encouraging cheering and instructional commands. These recommendations, if implemented could have a profound affect on the outcomes parent sideline behavior and youth sports soccer games.

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Table 1. *Observational data collection at Arizona Soccer Association youth games*

Praise/Encouragement	2016	45%
Performance Contingent	865	19%
Instruction	1457	32%
Negative/Derogatory	119	3%
Referee	67	1%
Total	4523	100%

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COMMUNITY RECREATION/FITNESS CENTERS FUNCTIONING AS INDUSTRY STIMULATOR AND INCUBATOR

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Introduction

Reports from the IHRSA (International Health, Racquet & Sports Club Association), the \$30 billion health and fitness industry in the U.S. has been increasing by at least 3 - 4% annually for over ten years and is likely to continue, as approximately 20% of American adults have a fitness club membership (Forbes, 2018). The growth in the market has been impacted by the convergence of multiple economic and population demographic trends that include an increased understanding of the impact of fitness to overall health, increased product accessibility, and increased product diversity. Current literature has examined the positive impact of business incubators that support regional development through job creation (Allen & Levine, 1986; Mian, 1997; Thierstein & Wilhelm, 2001) that is commonly aided by the growth of new ventures (Campbell, 1989). Incubators foster innovation and contribute to industrial renewal (Allen & Rahman, 1985; Similor & Gill, 1986). A business incubator is an economic investment into capital resources, programs, or products which provides multiple forms of opportunity and support to start-up ventures that can progress to function as viable freestanding operations (Allen, David, & Weinberg, 1988); and these future operations impact jobs creation, and the commercialization of these enhances wealth creation within local economies.

Park and recreation infrastructure and programming has been proven to provide direct and indirect economic impacts to local economies from direct operating expenditures, capital expenditures, property tax revenues, and tourism revenue (Crompton, 2010). In addition to the direct and indirect impacts that facility and event operations provide, research has demonstrated that specific developments and efforts can function as participation incubators and stimulators that actually increase overall market capture and improve market growth patterns (Similor & Gill, 1986). This research investigates the impact of a community recreation/fitness center on the macro-residential fitness membership market and self-reported fitness program participation.

Methods

A survey was created to examine residential satisfaction and use patterns of a new recreation/fitness center development and fitness membership purchase patterns and program participation within the area comprehensive fitness center industry market (Mullenbach, et. al., 2018). The residential population map was segmented into 8 equal zones based on population density, and an equal number of addresses were randomly selected from each zone. Survey administration was conducted at each selected home in a door-to-door fashion. A total of 388 surveys were collected.

Results

Data was examined using SPSS. The responding population consisted of 51% male and 49% female, 82% Caucasian, 8% Hispanic/Latino, 5% African American, 3% Asian, and 2% who indicated other. The median household income in the community was \$110,000. Roughly 65% of the respondents indicated that they held a membership to

the new community recreation/fitness center, and 20% of the respondents indicated they had a membership to a private fitness center. About 15% of the residents did not have either a private fitness membership or a city recreation/fitness center membership. When investigated using cross tabular strategy, 14% of the respondents held memberships to both the city recreation/fitness center and a private fitness center. Approximately 30% of the residents that had a membership to the new recreation center indicated they had participated in additional and or new fitness programming (group exercise and or personal training) due to expanded opportunities and exposure to these products available at the new center.

Discussion

The findings of this analysis demonstrate that this community recreation/fitness center development is not suppressing overall residential macro-market participation in the fitness membership market with membership to this community recreation and fitness center at 65%, and private fitness memberships equal to the 20% national average. Furthermore, a large portion of the market had explored and increased their participation in fitness services and programs as a result of increased awareness and availability provided at the new center. The new community recreation fitness center is not impeding overall market capture rate in the private sector, as the purchase pattern in this community is maintaining the expected private fitness center membership market purchase rate while the self-reported increase in overall fitness product purchase is an indicator of market stimulation and incubation of participation growth (Similor & Gill, 1986).

Application to Practice

The findings educate municipal recreation provider of a counter argument to the private sector fitness industry stakeholders who purport that municipal recreation/fitness center developments will harm the overall industry participation and market capture rates at the macro-level. The findings educate how the development of a community recreation fitness center can increase fitness market and overall fitness product participation rates. The impact of this new facility on fitness program participation creates potential for new businesses or fitness product expansion and an opportunity for adoption of an economic stimulation strategy called co-opetition (the simultaneous cooperation and competition between competitors).

Future municipalities that expect to encounter resistance to a recreation/fitness center development would benefit from conducting an assessment to determine current market trends and create a co-opetition strategy with existing industry stakeholders that would incubate new fitness service products and stimulate the macro residential fitness product participation rates.

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MEASURING THE EFFECTIVENESS OF COMMUNITY-BASED RECREATION PROGRAMS: Notes from the Field

Jo An M. Zimmermann, Texas State University

Introduction. There is an intensifying call for effective parks and recreation program service solutions which are grounded in empirical research. Conducting quality research in an agency typically implies evaluations, and most industry professionals would agree that evaluating the programs offered by their recreation agencies is important. Although there are numerous reasons to conduct evaluations (Henderson, Bialeschki & Browne, 2017), recreation programs need robust evaluation plans for two primary reasons: accountability regarding how funds are spent, and a professional obligation to provide programs and services that effectively address constituent needs. Hatry (1999) advocated a specific form of evaluation called outcome measurement, the intent of which was to look beyond the surface of ‘outputs’ (number of programs offered, the number of people served, etc.) and get a sense of the ‘results or outcomes’ due to participating. The roots of the recreation profession are in social services and many still consider community-based recreation agencies to be a social service, especially in the public and non-profit sectors. If community-based recreation agencies are to remain sustainable we should consider identifying measurable program indicators that can then be used to create evidence-based programs as well as inform future plans. According to Deterding and Solmeyer (2018) the shortage of “rigorous local evaluation represents a missed opportunity to build evidence of ‘what works’ in addressing important social problems” (p. 2). The United Way of America led the push for accountability in the nonprofit sector – since 1996, its grantees must submit ‘outcomes’ reports in addition to the typical ‘output’ reports (Hendricks, Plantz & Pritchard, 2008). This same ‘push’ has not fully been accepted or implemented in local public parks & recreation agencies. Measuring the effectiveness of recreation programs is a challenge for most public and nonprofit recreation agencies due to the lack of time and resources required to collect, analyze, and interpret data.

Purpose. This paper reports on the results of a research project, funded by the Texas Recreation and Park Society (TRAPS), which was designed to gain an understanding of the current evaluation practices of agencies providing community-based recreation services in Texas.

Methods. Data were collected via a series of focus groups over a 6-month period. All focus groups were conducted using a hermeneutic inquiry approach that would encompass both emerging substantive theory as well as emerging formal theory (Henderson, 2006). A list of seven guiding questions was used to provide some structure however, each focus group was allowed to expand in different areas based upon issues the focus group participants were most interested in. Data were analyzed using both holistic and evaluation coding techniques in a constructivist grounded theory process (Charmaz, M., 2014; Miles, Huberman, & Saldana, 2014). As themes were identified, every attempt was made to use the language or terms provided by the participants. Seven (7) focus groups were conducted over the course of 6 months. There were a total of 54 participants representing 28 agencies across the focus groups. All participants were responsible for evaluation of programs. Analysis was member checked through in-depth follow-up interviews with selected participants (Birt,

Scott, Cavers, Campbell & Walters, 2016). Participants were asked to provide samples of policies regarding evaluation as well as forms currently being use by their agency. None of the participants reported having any written policies regarding evaluation. Twelve of the 28 agencies provided evaluation forms. A content analysis was conducted to identify commonalities as well as unique aspects among the forms.

Results. Analysis of the focus groups revealed four (4) major themes: barriers to overcome, new strategies to consider, who should they survey and support for providing quality evaluations. All participants expressed a need for improved evaluation processes. The content analysis of forms revealed three (3) types of information: the intended audience of the evaluation, types of information requested, and methods of data collection. In terms of intended audience while most focused on patrons (or parents of patrons for children's programs), several also surveyed program staff. In two cases where programs were targeted at school groups, the surveys were completed by the teachers of those school groups rather than the students. Every agency, regardless of who was being surveyed asked questions regarding satisfaction. Beyond that, there were a variety of questions related to the following: quality of amenities, marketing, effectiveness of the programs as well as some demographic questions. In addition to the customer surveys most agencies required the reporting of 'institutional data' i.e. number of classes, number of new classes, number of cancelled classes etc. Most surveys are still distributed using pen and paper surveys. Agencies reported trying on-line approaches however, they are concerned with missing segments of the community who do not have access to internet. The language (i.e. English, Spanish, etc.) used for the surveys was also a conversation in several of the focus groups especially in communities with a high level of diversity.

Application to Practice. The big take-away from this research is that without written policies in place and many times not having much support, professionals are struggling to do a good job with evaluation. Most participants were excited to learn about what other agencies were doing as well as see samples of surveys. Focus group participants envisioned having more efficient means of collecting data, effective tools for analysis, and a desire to benchmark themselves to other organizations. These concerns are not isolated to a specific city or region as is evidenced by the recent development of NRPA's Customer Feedback Surveys Resource Center (Roth, 2019). By creating and using more robust processes communities will create stronger advocates which should lead to greater, more stable funding for agency operations. This presentation will include ideas about the types of information that can be collected including an explanation of the 5 P's (participant outcomes, program quality & improvement, place, polices/administration, and personnel) and why they are important. The session will conclude with examples of the more unique questions from the collected surveys.

Application to Practice Outcomes. By the end of the session participants will be able to: discuss the primary reasons for conducting program evaluations, identify which of the 5 P's of evaluation can be used when evaluating specific programs, and generate questions to use in an evaluation instrument.

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III. SOCIAL EQUITY

YOUTH WATER SAFETY MESSAGING EFFICACY: A QUALITATIVE EXAMINATION

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Dr. Austin R. Anderson, University of North Texas

Dr. Angela Beal-Tawfeeq, Rowan University

Rationale

The Centers for Disease Control and Prevention (CDC) estimates that approximately ten people die each day from unintentional drowning, with one in five deaths being children age 14 or younger, making drowning the fifth leading cause of unintentional death in the United States (CDC, 2012). Given the prevalence of these incidents, research has historically found that participation in swimming lesson programs can significantly reduce the risk of drowning, particularly among children (Brenner, et al., 2009; Yang, Nong, Li, & Feng, 2007). Further, the American Academy of Pediatrics has recommended swimming lessons for children age 4 and older as a strategy for the prevention of drowning (American Academy of Pediatrics, 2010).

This investigation was conducted as an extension of a study performed in 2015 and 2016, inspired by the American Red Cross Centennial Campaign, to examine the impact that Learn to Swim (LTS) programs may have on behaviors related to key water safety messages taught within the program (Ramos & Anderson, 2017; Beale, Anderson & Ramos, 2018). The current study results are presented as a follow-up to this initial investigation that utilized the Reasoned Action Approach (RAA; Fishbein & Ajzen, 2010) to predictively explore how youth will behave around the water as a key factor in drowning prevention. Building on those results, this study utilized in-depth interviews with youth swim lesson participants to further examine how effective LTS programs are in delivering water safety messages that are actionable and understandable, particularly as it relates to “rescue” and “call for help” behaviors. Through further examination of the impact of these programs, researchers and practitioners alike can continue to assess the effectiveness of traditional LTS programs to better prevent aquatic accidents.

Methods

In-depth interviews were conducted with 29 youth LTS participants in day camp settings across three locations in Florida. Interviews were conducted in-person with a two member team, were video and audio recorded, and ranged in length from 6 to 26 minutes ($M = 13$ minutes). Participants included city parks summer camp youth members derived from selected American Red Cross (ARC) Centennial Program sites in Florida. The ARC Centennial Program targets cities with higher than average fatal drownings or overall drowning rates to offer reduced-cost swim lesson programming to underserved populations. Camp staff were utilized to facilitate parental permissions and interviews.

Data were transcribed and analyzed using systematic constant comparison analysis consistent with tenants of the grounded theory approach (Strauss & Corbin, 1998). This analysis allows important thematic elements to emerge from the participants and their experiences within a particular area of interest (Mills, Bonner & Francis, 2006). In this study, the combination of interview data and constant comparative analysis within the grounded theory approach allowed the investigators to

gather rich, descriptive data from participants about their swim lesson participation and predicted behaviors in a sample aquatic setting (i.e., a beach scene picture that was provided to participants).

Results

The experiences of the selected LTS participants related to their “rescue” and “call for help” behaviors in aquatic settings varied based upon the individual demographics of the participants themselves but did cluster around clearly defined themes emerging from the analysis of the data. These themes included: (a) initial adherence to “Reach or Throw, Don’t Go”, (b) identification of people in trouble in the water, (c) calling for help on the phone or in person, (d) identification versus usage of rescue equipment, and (e) emphasis on social learning agents across all areas.

Application to practice

Outcomes from the analysis will be used to inform future program development, design, and delivery of water safety education. Historically, most program messaging around water safety has operated from a level of best practice. Applying scientific inquiry to the concept, as in the case of this study, helps to identify gaps in knowledge and understanding from the lens of those participants the programs are supposed to impact. It also helps to confirm the messaging concepts that resonate with youth participants. In addition, results opened new frameworks such as the influence of social learning agents at play in communicating positive water safety messages.

Directly, the results indicate that alternative or additional modalities need to be explored and then employed to reach youth swim lesson participants in ways that will truly result in the desired behaviors in, on, and around the water. By dissecting responses from the data in this study we can ascertain that there is room to either adjust existing historically popular water safety messages, or perhaps to completely re-design and re-think their operational value.

For the practitioner, study outcomes indicate that the best option for delivering effective water safety messages at this time must come with an awareness that youth do not always understand the standard messages as they are traditionally presented. Socio-cultural and community/family systems should be taken into account. Those involved in the delivery of water safety programming should make attempts to clarify the messages to ensure youth participants understand the true desired actions and outcomes.

As the study participants were almost exclusively from minority racial and ethnic backgrounds, the study provides some important results for practitioners in the provision of aquatic safety programming for traditionally underserved populations. Study data can be analyzed and interpreted in light of racial stereotyping of aquatic based (swimming) behavior and the historical inequities found in the provision of aquatic programming in areas of high minority representation and low socio-economic resources.

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THE IMPACT OF SOIL CONTAMINATION IN URBAN OUTDOOR LEISURE SPACES

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Introduction/Rationale

In 2018, NRPA hosted its annual conference in Indianapolis, Indiana. Two years later, Sandorf Park, the park designated as the 2018 Parks Build site, remains closed due to high levels of arsenic and lead identified in the soil when renovations began. However, Sandorf Park is not alone among recreation spaces that have been found to have high contamination levels (Filippelli, Adamic, Nichols, Shukle, & Frix, 2018; Hung, Hernandez-Cira, Jimenez, Elston, & Jay, 2018). Across public and private spaces of outdoor recreation and leisure, industrial pollution in many urban areas has shaped leisure landscapes and influenced the meaning of “nature” and “greenspace.”

Soil lead, in particular, has received attention of several municipalities nationwide, from Indianapolis to Philadelphia and Los Angeles (Barboza & Poston, 2016; Hopkins, 2019; Krummer, 2019). In the case of lead—a neurotoxin—public health researchers have identified relationships between even low blood lead levels and adverse health outcomes for decades (Braun, Kahn, Froehlich, Auinger, & Lanphear, 2006; Chiodo, Jacobson, & Jacobson, 2004). However, there has been little attention to the specific, property-level triad of relationships between urban environmental health hazards (e.g. soil lead) and individuals’ environmental attitudes and outdoor leisure behaviors. Consequently, this case study sought to illuminate how environmental attitudes and outdoor leisure behaviors are influenced by soil lead contamination.

Methods

This embedded, mixed method case study (Yin, 2017) triangulated results of soil lead levels, survey questionnaires, and qualitative data (including interviews, observations, and documentation) to better understand the impact of soil lead contamination on urban residents’ (1) outdoor leisure behaviors and (2) environmental attitudes. The case centered the communities near a former lead-acid battery recycling facility in Vernon, California. More than 1,500 residential properties in the facility’s vicinity were contaminated with soil lead (SPb) levels exceeding that of the federal thresholds for residential play areas. Property-level soil data was publicly available through the State of California (2020). Environmental attitude (EA) was measured using selected subscales of Sutton and Gyuris (2015)’s optimized Environmental Attitudes Inventory. Outdoor leisure behavior was calculated based on a series of self-reported items. Data collection included door-to-door and mailed distribution of a bilingual survey. Interviews were conducted with 16 residents and institutional representatives. Sampling targeted households based on objective SPb level and presence of child.

Results

Of 400 surveys distributed, 14.5% (N = 58) were returned. Results of a Kruskal-Wallis H test indicated no significant difference in adult weekly outdoor leisure time (AOLT) based on objective SPb thresholds (Adults: $\chi^2(3) = 2.887$, $p = 0.409$, $\epsilon^2 = 0.051$).

Additionally, no significant relationships were identified between AOLT and subjective perceptions of SPb contamination at community, property, or household health levels (Community: $r=0.046$, $p=0.731$; Property: $r=0.028$, $p=0.837$, Household health: $r=0.099$, $p=0.460$). These results were supported by a multiple linear regression model (Table 1) which indicated that neither objective nor subjective SPb measures significantly predicted AOLT ($R^2 = 0.244$, $F_{52,5} = 3.364$, $p = 0.010$). However, male gender identity was associated with an 8 hour/week increase in AOLT ($p = 0.018$), holding all else equal. Providing context to the lack of significant outcomes, more than half of residents interviewed either had not heard of the SPb contamination issue or could not recall their sampling results. Underlying contributing factors included complex and lengthy communication materials from public officials (e.g. some more than 100 pages long) as well as systemic vulnerabilities associated with fragile tenancy and immigration status.

With respect to environmental attitudes, Spearman's rank correlations indicated a positive relationship between respondents' "*enjoyment of nature*" and SPb community hazard perception ($r_s = 0.410$, $p = 0.002$), suggesting that respondents' reported enjoyment of nature corresponded with an increase in perception of SPb contamination at the community level (Table 2). Additionally, a significant, moderate negative relationship was identified between human utilization of nature and community hazard perception ($r_s = -0.307$, $p = 0.019$). This latter relationship suggests that increases in belief that humanity should be able to "use" nature for economic benefit generally corresponded with decreases in perception of soil lead hazard at the community level. However, no significant relationship between environmental attitudes and objective SPb level was identified, which was supported by interview data. To that end, several residents acknowledged the soil lead contamination issue, but did not characterize it as something substantial, i.e. an issue that might shape their environmental worldview.

Application to Practice

Urban spaces like residential yards and parks represent the most proximate and utilized greenspaces for many Americans, of whom 80% percent live in urban areas (Guzman, Posey, Bishaw, & Benson, 2018). Yet over the past several decades, this urbanization, characterized by high population density and industrial activity, has also resulted in severe pollution stress. Given this framing, this research serves to:

- Identify SPb as a potential threat to health-promoting urban outdoor recreation
- Illustrate how larger social-ecological institutions (e.g. through public communications) influence behavioral responses—or lack thereof—to hazards
- Advocate for long-lasting commitment to equity and justice: The communities surrounding Sandorf Park are still deserving of a Parks Build investment

It is with these applications and calls to action, in conjunction with new insight into the psychological and behavioral adaptations to soil lead contamination herein, that this study seeks to make a new contribution to the study of parks and recreation.

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Table 1*Multivariate Regression Model for Adult Outdoor Leisure Time, N=58*

	Response Variable: Adult Outdoor Leisure Time			
	Unstandardized Coefficients		Standardized Coefficients	<i>p</i>
	B	Std. Error	β	
Constant	16.390	4.146		0.000
SPb objective level (in ppm)	0.005	0.003	0.235	0.061
SPb household health risk perception	1.480	1.176	0.163	0.214
Education level (some college or more)	-3.383	3.299	-0.134	0.310
Gender (female)	-8.181	3.045	-0.326	0.010*
Presence of child age 0-5	6.555	3.768	0.212	0.088

Table 2

Spearman Rank-Order Correlation Table between EA and SPb, N = 58

	EA: Enjoyment of Nature	EA: Human Util. of Nature	SPb objective level (in ppm)	SPb Community hazard perception	SPb Property hazard perception	SPb Household health risk perception
EA: Enjoyment of Nature	1	-0.196	0.050	0.391**	0.147	0.217
EA: Human Util. of Nature	-	1	0.104	-0.307*	-0.193	-0.174
SPb obj. level (in ppm)	-	-	1	0.229	0.083	0.016
Community hazard perception	-	-	-	1	0.579**	0.544**
Property hazard perception	-	-	-	-	1	0.777**
Household health risk perception	-	-	-	-	-	1

*indicates $p < 0.05$, **indicates $p < 0.01$

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ENVIRONMENTAL EDUCATION PROGRAMS AT NEIGHBORHOOD PARKS INCREASE PARK VALUE

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Dr. John Pipoly, Broward County Parks and Recreation

Introduction

Parks in urban areas, traditionally underserved cities, and ethnic communities are often ignored as centers of environmental education. Yet, environmental education programs in urban parks have the potential to prepare coming generations for resilient environmental stewardship wherever they are. People who have experiences in nature are more likely to act responsibly toward nature, and frequent direct experiences in nature are linked to an increase in “pro-environmentalism” (Rosa & Collado, 2019). Research also shows that biodiversity found in parks affects human health, wealth, and security (Naeem et al., 2016). The notion that urban parks lack environmental heritage and that environmental knowledge must be learned in a “novelty” setting were dismissed in an experiment conducted through a Broward County Parks and Recreation Science, Technology, Engineering, Arts, and Math (STEAM) program. Preliminary data from our pilot study shows that students who attended an environmental education lesson at their “home” park placed a higher value on nature than those who attended a similar program at a “novelty” park known for its environmental initiatives.

Methods

A STEAM in Parks comparative study analyzed participants’ perceived value of nature within a park after an environmental education program. The study data consisted of two pools of students who were selected based on their availability and parental permissions to attend an environmental education program at a “home” park and a “novelty” park. One program was conducted in the attendees’ “home” park, which the participants visited every day as part of the Broward County Parks and Recreation neighborhood parks After-School and Out-of-School-Time program. The “novelty” park is located 12 miles from the student’s “home” park in an affluent city and is well-known for its amenities such as horse stables, horticultural demonstrations, and a butterfly house/museum. The “home” group (n=39) had environmental educators come to their park and teach them about their surroundings. The “novelty” group (n=73) was bussed to a park for a series of sessions by environmental professionals. Students could attend the environmental education at the “home” park, the “novelty” park, or both. After the environmental education sessions, students were asked to fill out an 11-question survey about their experience. Survey questions included their age group, ethnic background, zip code, gender, school affiliation, park visited, a multiple-answer question about environmental concepts learned, an open-ended question that describes the value of the park to the environment, and questions about future visits.

Study data were collected from student participants (n=112) in the Free After-School and Out-of-School Time camp at a large urban park in a historically African American neighborhood within unincorporated Fort Lauderdale, in Broward County, Florida. Ninety percent of respondents (n=102) identified as black or African American, and ranged in age from 6 to 18. Eighty percent of the students live in the most impoverished zip code and largest “food desert” within Broward County (33311).

Results

A post-event survey revealed that students who attended the “home” park session were more able to recognize the value of biodiversity in the park. Students at the “home” park learned the most about flora (n=39) (see Figure A), compared with fauna at the novelty park (n=59) (see Figure B). Further, the results to the open-ended question were analyzed and coded into three categories (see Table 1): Number One: Eco-Cognizant, meaning that the student showed some evidence of environmental concepts and how parks, nature, and biodiversity impact their lives; Number Two: Species-Specific Recognition, meant that the respondent could identify species found in that habitat (i.e. golden orb weaver spider versus spider among others); and Number Three: Personal or Camp-Related, which meant that the respondent’s comments conveyed personal experience and/or attitudes about the park or program. A combined 69 percent of students surveyed at the home park were able to make eco-cognizant statements (n=22) and species-specific recognition (n=5). At the novelty park, 63 percent of students at were able to make eco-cognizant statements (n=45), and none of the students exhibited species-specific recognition (n=0). The ability to make eco-cognizant statements and species-specific recognition are critical to increasing one’s perceived value of nature (Rosa & Collado, 2019).

Application to Practice

Parks, as pillars of the community, are doing a disservice if practitioners ignore the value of biodiversity in urban parks in traditionally underserved neighborhoods. Urban parks are vital to experiential environmental education and assist at-risk students in taking “ownership” of the natural resources in and around their respective homes through a shared natural heritage (Dimick, 2016). There are some limitations of the study, which include the small sample size, limited project funding, post-event survey design, and ability to follow up with student participants. Still, the students surveyed exhibited the thought patterns congruent for consequent behavioral change. If parks are to create advocates for natural areas, conservation, and climate justice, first, all parks must have environmental education programs that feed the curiosity and wonder about nature. To do this, funds need to be allocated to create these programs in an inclusive and equitable manner. Ultimately, a complete educational package can convert parks from leisure and recreation havens to essential learning hubs where life skills and science are interwoven. Partnerships with universities and research professionals can assist in this mission to implement meaningful hands-on and virtual curricula focused on best management practices, biology, and ecology in Out-of-School-Time and After-School programs. With these practices in place, urban communities will have a more eco-cognizant populace that will value parks, nature, biodiversity, and its importance to urban society’s need to reach consilience when mapping their environmental future.

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Figure 1

Environmental education post-event survey results: home park (Reverend Samuel Delevoe Memorial Park)

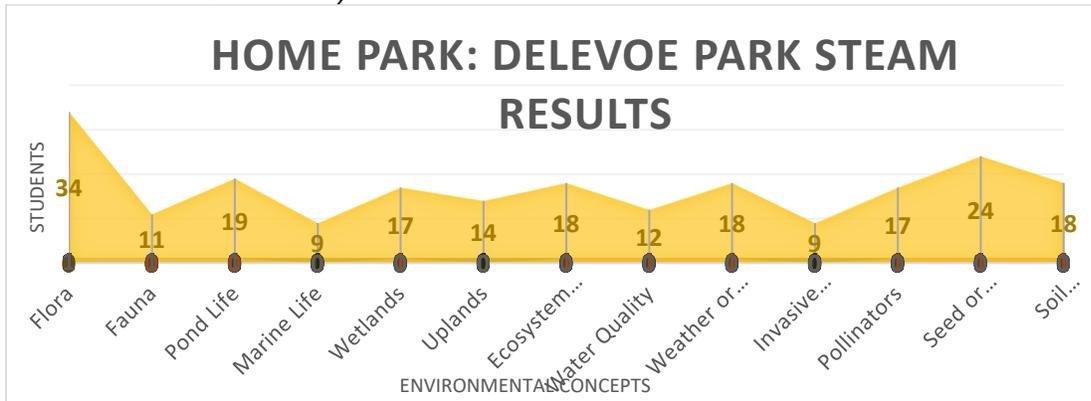


Figure 2

Environmental education post-event survey results: home park (Tradewinds Park & Stables)

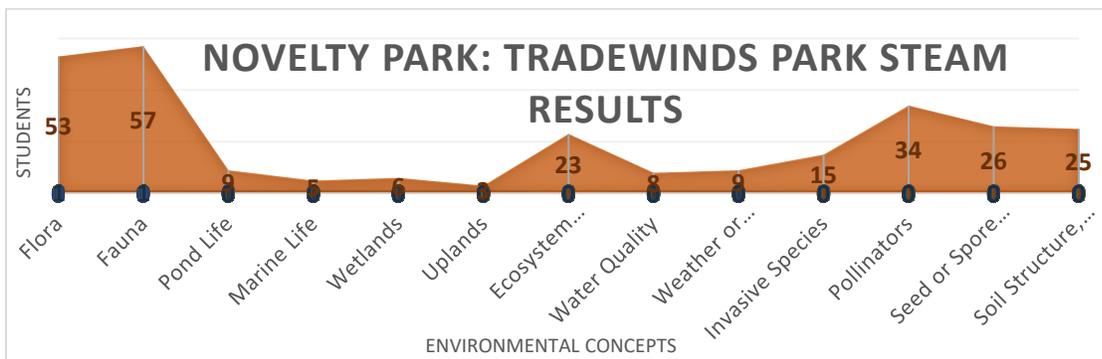


Table 1*Sample coding of responses by theme describing parks' value to environment*

Theme	Sample Responses (Describe the value of this park to the environment...)	Park
Eco-Cognizant	Now I know how to treat the environment and the animals and insects	Novelty
Personal	Fun because we do field trips and fun interesting activities	Home
Species-Specific Recognition	I learned about the tropical almond tree	Home
Eco-Cognizant	It helps the environment by making food from plants	Novelty
Eco-Cognizant	It's wet, there's a lot of trees and different insect like spiders	Home
Species-Specific Recognition	Spiders, plants, birds, golden orb weaver spiders	Home
Eco-Cognizant	The bees are being kept	Novelty
Eco-Cognizant	Gives us clean air and food	Novelty
Eco-Cognizant	It contains plants and animals that help each other stay alive	Home
Eco-Cognizant	The value of this park to the environment is important because it consists of a lot of flora (plants), pollinators, nutrients, and wetlands	Home

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PERCEPTIONS OF AFRICAN-AMERICAN OUTDOOR EXPERIENCES

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Introduction/Rationale

Research suggests that African-Americans participate in outdoor recreation less frequently than other racial/ethnic groups. With an increasing U.S. minority population, there is a need to better understand the perceptions and experiences of African-American outdoor recreation participants for several reasons. First, outdoor recreation is associated with positive health and wellness outcomes. Additionally, lack of access to public lands raises environmental justice concerns. Lastly, as demographics in America shifts, outdoor recreation needs to increase in relevancy with people of color to equitably serve our changing population. Racial and ethnic disparity in outdoor recreation participation is well-documented in the literature and is often attributed to several different leisure constraints. Despite these leisure constraints, African-Americans are still participating in outdoor recreation activities. The purpose of this research was to gain a more comprehensive understanding of these African-Americans' outdoor recreation experiences. By taking an exploratory approach, various issues related to outdoor recreation experiences such as constraints, negotiation tactics, experiences, and motivations were explored.

Methods

Using a qualitative research approach, semi-structured interviews were conducted with fourteen African-American outdoor recreation participants. In this nationwide study, participants were interviewed using in-person, webcam, and telephone interviews. Interviews were recorded and transcribed verbatim. Using interview transcripts, a process of open and axial coding was completed. Steps were taken to ensure validity at each step of the research process.

Results

Participants in this study faced several leisure constraints while participating in their desired outdoor recreation activities. Despite these constraints, the interviewees of this study partook in outdoor recreation with varying levels of participation. Strong outdoor recreation communities were cultivated with the help of grassroots outdoor recreation affinity groups in which interviewees founded or joined throughout time. These groups emerged as a major tactic to help interviewees participate in outdoor recreation. Through their involvement in outdoor recreation, individuals gained several perceived benefits and were motivated to participate in outdoor recreation activities.

Application to Practice Outcomes

Based on the findings of this study, recommendations for future research and for outdoor recreation practitioners were provided. Future research should aim to examine the “homogenous” and exclusive nature of outdoor culture, outdoor recreation affinity groups, how other groups of people define outdoor recreation, different forms of outdoor

recreation and the benefits associated, and reexamine the “participation gap”. Recommendations for outdoor recreation practitioners and industry stakeholders included supporting outdoor recreation affinity groups, changing marketing demographics for outdoor recreation activities, encouragement of different outdoor recreation styles, hiring & training diverse people to lead outdoor recreation programs, and engaging with key stakeholders in diverse communities. The recommendations developed from this study can help outdoor recreation practitioners and outdoor recreation scholars in efforts to diversify outdoor spaces.

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TOOLS TO SUPPORT THE EQUITABLE GOVERNANCE OF GREEN INFRASTRUCTURE BETWEEN STAKEHOLDER GROUPS

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Introduction/Rationale

The management of urban environments has long been a process involving many stakeholders including public works officials, park professionals, non-profit organizations, citizen-led advocacy coalitions, and residents. The number of actors who contribute expertise to matters of environmental concern has only grown in recent years as cities and municipalities implement green technologies, resilience initiatives, and sustainability plans. This growing number of participants, combined with the need to assess the contextual fairness of development, means that many cities are grappling with questions of how to best govern for equitable environmental change. One initiative shaping this transition is the use of green stormwater infrastructure (GSI) to decrease impervious surface area, improve water quality, reduce strain on existing grey infrastructure, and provide a suite of beneficial ecosystem services. In our pilot study site of Baltimore, many stakeholders have designed, constructed, and maintained GSI with variable success. Yet, we found that not only is the current distribution of GSI inequitable but also that many residents lacked access to necessary support structures to maintain local facilities. Explanations for this divide can be traced to variable priorities, regulatory constraints, and divergent goals across stakeholder positions. In response to these findings, we have developed tools to improve the equity of the systems that support green development. These tools include best practices for data management, the use and development of public knowledge repositories, and embracing collaborative problem definition practices during project planning.

Methods

A recent project led by the Cary Institute of Ecosystem Studies with researchers from the New School, University of California - Davis, and the USDA Forest Service - Baltimore Field Station investigated the question, 'Is Green Infrastructure a Universal Good?' Researchers addressed this question from three separate, but interrelated investigations;

- Using geospatial analysis we contextualized the position and distribution of GSI relative to the sociodemographic characteristics of different Baltimore neighborhoods. We measured the distributional equity of projects within the city.
- By conducting interviews with community stakeholders we traced the positive and negative perceptions held about GSI in local neighborhoods. We learned about the challenges residents faced when maintaining public infrastructure.
- Drawing from a 20 city sustainability plan analysis we asked whether cities understood a potentially different relationship of green infrastructure within underserved neighborhoods.

In conducting this research, we identified governance challenges specific to Baltimore, that we suspect are broadly applicable to US cities as they work to expand the use, efficacy, and impact of GSI.

Results

Result 1: Documentation and tracking of GSI in Baltimore is currently underdeveloped. Prior to conducting our research, there was no centralized dataset of GSI in Baltimore. Information about facilities was spread between different institutions, philanthropic funders, and city agencies. There is no way to assess whether GSI is being deployed equitably without understanding its context in the environment.

Result 2: Community Associations and Residents are often at a disadvantage when engaged in GSI projects.

Contractual relationships between community-level institutions and city officials that emerge during restoration GSI projects exacerbate existing inequities. Stakeholders should work collaboratively to develop and support public knowledge repositories for maintenance practices, protocols, and standards of care. The resource would eliminate administrative burdens faced by organizations when maintaining GSI.

Result 3: Stakeholders in Baltimore disagree about the problems solved by implementing green infrastructure or green stormwater infrastructure.

This disagreement has resulted in multiple motivations for constructing GSI. Consequently, the social meanings and uses of GSI differ greatly between stakeholder groups. Agency and institutional stakeholders must begin to develop collaborative problem definition practices. Stakeholders need to establish shared governance practices by defining the rights, responsibilities, standards, and practices involved in the implementation and continuance of GSI.

Application to Practice

Data Management: Attendees will walk away with an overview of common pitfalls stakeholders face when maintaining data about green development. The presentation provides an overview of best practices, privacy concerns, and a worksheet for evaluating institutional data management.

Public Knowledge Repository: Attendees will be introduced to public knowledge repositories. Creating public knowledge banks may ease the administrative, organizational, and logistical burdens of community-centered or maintained GSI projects. We will provide a handout with resources for creating low-cost, community shared resources.

Collaborative Problem Definition: Attendees will learn about the practice of collaborative problem definition. This practice decenters expertise in technical work and instead emphasizes beginning with community and local concerns when attempting to solve environmental problems. We suggest practicable techniques for incorporating this strategy into GSI planning and implementation.

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EXPLORING THE CONDITIONS THAT PROMOTE SOCIO-DEMOGRAPHIC MIXING AT URBAN PARKS

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Introduction

In an increasingly diverse society, conflict between different groups (e.g., ethnic, racial, cultural) is both prevalent and problematic; issues of prejudice, racism, and discrimination related to intergroup conflict are concerns for individual wellbeing and community cohesion (Priest et al., 2013; Reitz & Banerjee, 2007). Intergroup contact, or interaction between people of different backgrounds, can help ameliorate these concerns. Positive contact among people from different backgrounds has been documented as a viable strategy to build cultural awareness, reduce levels of prejudice, and in turn, affect a variety of desirable outcomes (Allport, 1954; McKeown & Taylor, 2017; Pettigrew & Tropp, 2006; Turoy-Smith, Kane, & Pedersen, 2013). Park and recreation settings where people pursue hobbies or interests of their choosing are ideal for examining the occurrence and extent of intergroup contact (Shinew, Glover, & Parry, 2004; Wessel, 2009). However, despite their unique position as spaces of community interaction, relatively little scholarly attention has been given to the topic of intergroup contact in parks (Hillier et al., 2016). Evidence suggests that intergroup contact can occur in parks, but the conditions under which it occurs are less well understood. A limited body of qualitative research on park-based intergroup contact and research on contact from related fields has suggested the importance of safety, connection to place, sense of welcome and belonging, and community engagement (Hewstone et al., 2006; Laurence, 2019; Liu et al., 2018; Peters et al., 2010; Selim, 2015). However, the connections between these concepts have not been empirically tested within park spaces. A better understanding of those conditions which relate to intergroup contact could promote better design of spaces, programs, and engagement efforts to promote interaction among people of different backgrounds. This study investigated the following questions: 1) To what extent does intergroup contact occur at urban parks? and 2) What factors relate to intergroup contact at urban parks?

Methods

Data for this study (n=417) were collected using surveys of local resident users from three urban parks in Philadelphia which recently received significant capital and programmatic investment: Bartram's Garden, West Fairmount Park, and the Rail Park. Data were collected via park intercept surveys and resident surveys of proximal neighborhoods around each of the parks. Data collection for Bartram's Garden occurred in 2017, West Fairmount Park in 2018, and the Rail Park in both 2018 and 2019. The surveys examined park users' visitation patterns (e.g., duration and frequency of use), perceptions of intergroup contact (4 items, $\alpha=.908$), sense of welcome and belonging (4 items, $\alpha=.774$), personal ownership (4 items, $\alpha=.818$), community ownership (3 items, $\alpha=.788$), community engagement (3 items, $\alpha=.700$), and safety (single item). Items from each of these scales were developed for a park-context based on previous literature from youth development, environmental psychology, and civic engagement (e.g.,

Doolittle & Faul, 2013; Gambone & Arbretton, 1997; Pierce et al., 2001). Conversations with community organizations were also influential in the creation of these measures. Descriptive statistics are reported for each of the constructs and multiple linear regression with path analysis was used to examine whether and how these constructs relate to intergroup contact.

Results

Descriptive statistics are reported in Table 1. A multiple linear regression was conducted to examine what constructs relate to park-based intergroup contact. These variables explained 28% of the variance in intergroup contact, $F(5,322)=25.416$, $p<.001$. Welcome and belonging, community ownership, and community engagement were significant, positive correlates of park-based intergroup contact (Table 2). Park visitors who felt a greater sense of welcome and belonging, recognized greater community ownership of the park, and felt more engaged and valued by the community organizations managing the park expressed higher levels of park-based intergroup contact. For people of different backgrounds to meet in public spaces and interact, it stands to reason that diverse groups would first need to feel like they were welcome and belong in that space. Operating on this notion, we further examined sense of welcome and belonging as a potential mediating variable in the path analysis. The constructs of personal ownership, community ownership, safety, and community engagement were all significant, positive model predictors of welcome and belonging; together these variables explained 47% of the variance in welcome and belonging, $F(4,355)=79.147$, $p<.001$.

Application to Practice

This study demonstrated the importance of sense of welcome and belonging, community ownership, and community engagement in relating to conditions under which park-based intergroup contact occurs. Findings suggest several applications for practice to increase park-based intergroup contact. First, it is critical for park agencies to create an environment that is welcoming to diverse users. Per our findings, placemaking initiatives which stimulate both personal and community ownership can help to increase individuals' feelings of welcome and belonging in park spaces. For example, Bartram's Garden staff implemented an initiative to reposition their organization from what was previously perceived as a private botanical garden to a community gathering space that belongs to the neighborhood. Their repositioning was based in the concept of community ownership, as evidenced by their slogan: *Bartram's Garden is your Backyard*. Beyond ownership, safety is also important to creating an environment that is welcoming to local park users. Next, it is important to engage community members in park planning and programming processes. When users feel their voices are represented and their input is valued in the park, they are more likely to feel welcome and to interact with people from different backgrounds. Organizations should utilize engagement to ensure that both physical designs and programs reflect the community's culture and values. Intentional efforts to stimulate ownership, engage community residents, and improve safety can help users to feel more welcome, and in turn, engage in more intergroup contact.

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Tables and Figures

Table 1. Descriptive Statistics

Variable	Mean (SD)
Intergroup Contact ¹	3.62 (.93)
Personal Ownership ²	3.09 (.94)
Safety from Criminal Activity ³	4.29 (.77)
Sense of Welcome and Belonging ⁴	5.60 (.82)
Community Ownership ⁴	5.57 (.96)
Community Engagement ⁴	4.52 (1.24)

¹Five-point scale from 1=never to 5=always

²Five-point scale from 1=strongly disagree to 5=strongly agree

³Five-point scale from 1=poor to 5=excellent

⁴Seven-point scale from 1=strongly disagree to 7=strongly agree

Table 2. Multiple Linear Regression Results

Model	R ²	Independent Variables	Unstand. β	Stand. β	p
Intergroup Contact	.283***	Welcome and Belonging	.275	.247	.000
		Safety	.104	.087	.086
		Community Ownership	.209	.217	.000
		Community Engagement	.116	.161	.002
		Personal Ownership	.018	.017	.782
Welcome and Belonging	.471***	Personal Ownership	.327	.357	.000
		Community Ownership	.254	.296	.000
		Safety	.195	.181	.000
		Community Engagement	.080	.124	.003

* $p \leq .050$, ** $p \leq .010$, *** $p \leq .001$

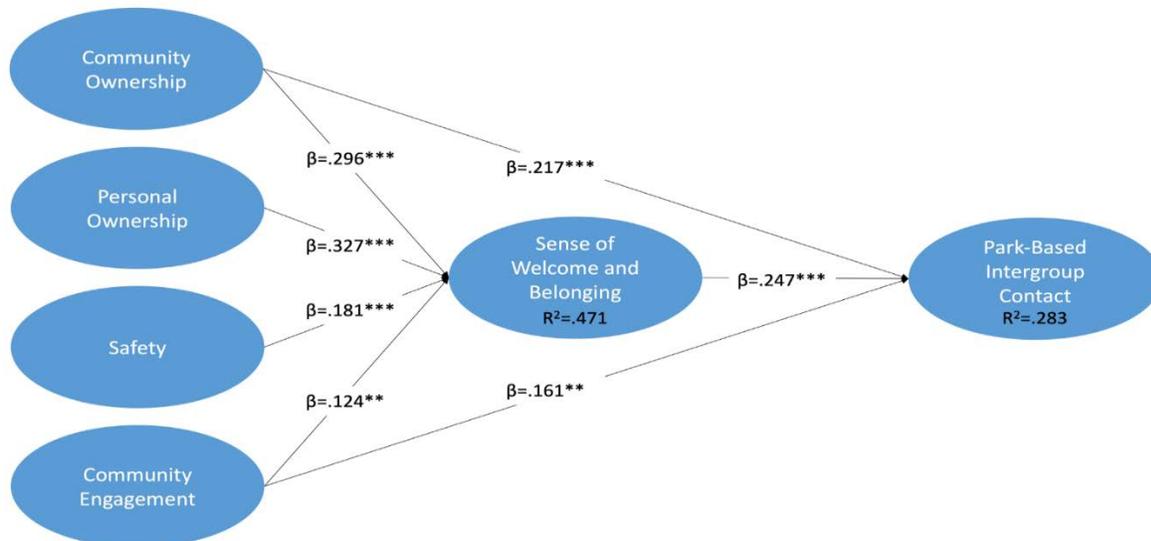


Figure 1. Path Model

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IV. METHODOLOGY AND RESEARCH DESIGN

SAFETY OF PUBLIC PLAYGROUNDS: FIELD ANALYSIS FROM A RANDOMIZED SAMPLE OF 103 GEOGRAPHICALLY DISPERSED PLAYGROUNDS

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Introduction

Playgrounds are essential facilities supporting child well-being and community livability. Unfortunately, more than 200,000 children require medical attention from playground-related injuries (Hanway, 2016) which is equivalent to more than 500 children per day. Injury rates have remained consistent compared to the previous decade (Tinsworth & McDonald, 2001; Vollman et al., 2009; Schwebel & Brezausek 2014; Hanway, 2016; Tuckel et al., 2017; Adelson et al., 2018) and the majority of playground injuries are related to falls (Hanway, 2016; Cheng et al., 2016; Tuckel et al., 2017). Research indicates falling onto a shock absorbing surfacing is less likely to cause a serious head injury (Ball, 2004; Chalmers, et al. 1996) and equipment fall height has been a predictor of injury severity (Fiisel et al., 2005).

Playground safety and injury prevention is complex, often misunderstood, and minimized. There are a number of elements to consider when examining the safety of children and playgrounds. The type of equipment, fall height, location of play equipment, durability and safety of equipment, fall protection, age of equipment, playground location, and maintenance are important factors to prevent playground injuries. Playground safety initiatives have consisted of the development of guidelines (CPSC, 2010) and voluntary safety standards to prevent serious injury (ASTM F1487; F1292), including falls, head entrapments, entanglements of ropes, and playground structure failure.

This research was based on an extensive field study with the goal of gathering baseline safety information of playground environments and impact attenuation characteristics of surfacing materials across 103 playgrounds in the US. The purpose of the study was to develop playground safety and surfacing field-testing checklists and to evaluate safety risks on public playgrounds. Understanding the current status of playgrounds in the US offers knowledge on current playground conditions and provides information for on-site playground testing protocols (Olsen & Kennedy, 2019). Two guiding questions are highlighted: 1) what are the current safety conditions of playground environments? and 2) what are the impact attenuation results of playground surfacing materials?

Methods

A national, randomized study of the safety conditions of public playgrounds across the US using Census Block Group (CBG) geographic boundaries was conducted. Any public park or school listed in the Dun and Bradstreet Database that fell within the CBG boundary was selected. While playgrounds are often accessible to the public, to ensure access, it was necessary to obtain permission or inform the owner/operator of field-testing procedures. The data were gathered on-site by a certified and trained playground inspector, using two methods: 1) an on-site evaluation of a comprehensive

list of safety factors, and 2) impact attenuation tests on the surfacing surrounding individual play structures.

The field testers followed project procedures to evaluate playground safety conditions using a safety checklist derived from the CPSC Handbook for Public Playground Safety and ASTM Standard F1487. Impact attenuation testing was performed in accordance with protocols adopted from ASTM Standard F1292 (Olsen & Kennedy, 2019).

Results

Field-testing was conducted at 103 playgrounds between April to August 2017 including public parks (n=73) and public schools (n=30). The number of playgrounds field-tested represented five different geographical regions: Mid-Atlantic (14); Midwest (45); New England (15); Southwest (2); and West North Central (27). Data was collected and analyzed from 415 total play structures and over 3,000 impact attenuation tests, revealing concerns related to the playability and safety. The most concerning observations are related to potential hazards around equipment (Table 1), limited attention to environmental comfort and protection, and the adequacy of fall protection (Table 2).

High percentages of playgrounds demonstrated worn, broken, or missing play components (34%-64%). Potential strangulation hazards from entanglement and foreign safety hazards (ropes or chains) were found in approximately 20% of visited playgrounds. Observations also indicated a lack of shade on most playgrounds (67%) which results in both increased UV exposure and potentially higher surfacing, equipment, and ambient temperatures. These factors influence both the thermal comfort and the heat-related health risks for children.

Loose-fill playground surfacing materials (e.g. wood products, sand, pea gravel, crumb rubber) was encountered at 95% of the playgrounds. Wood products were the most widely encountered type of loose-fill material (85%). Inappropriate playground surfacing materials were encountered at 7% of all structures. Of the appropriate surfacing materials, approximately 13% of those surfaces did not meet impact attenuation standards.

Implications for Practice

Given the recent increase in playground-related injuries, there is a need for consumer and owner/operator awareness about playground safety, maintenance, and the importance of playground surfacing materials under and around play structures. Results of this study provide a first glimpse of the safety status of today's playgrounds. The general maintenance of playgrounds is an important factor to keep children safe. Safety hazards were encountered more frequently once equipment was 10 years of age. Field-testing procedures and related standards should be revisited to provide a more holistic approach to playground safety, including environmental health, comfort, usability, and injury prevention.

Table 1. Playground Safety Concerns Based On the Approximate Age of Equipment

Question		<5 years old n=17		5 to <10 years old n=23		10 to <20 years old n=31		20+ years old n=8		Mixed equipment ages n=17		Unknown n=7	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Sharp points, corners or edges?													
	Yes	0	0.0	0	0.0	7	22.6	2	25.0	2	11.8	5	71.4
	No	17	100.0	23	100.0	24	77.4	5	62.5	15	88.2	2	28.6
	N/A	0	0.0	0	0.0	0	0.0	1	12.5	0	0.0	0	0.0
Missing or damaged protective caps or plugs?													
	Yes	0	0.0	1	4.3	6	19.4	2	25.0	4	23.5	3	42.9
	No	17	100.0	22	95.7	25	80.6	3	37.5	13	76.5	4	57.1
	N/A	0	0.0	0	0.0	0	0.0	3	37.5	0	0.0	0	0.0
Hazardous protrusions?													
	Yes	0	0.0	0	0.0	3	9.7	2	25.0	2	11.8	5	71.4
	No	17	100.0	23	100.0	28	90.3	5	62.5	15	88.2	2	28.6
	N/A	0	0.0	0	0.0	0	0.0	1	12.5	0	0.0	0	0.0
Potential clothing entanglements?													
	Yes	1	5.9	1	4.3	6	19.4	5	62.5	5	29.4	5	71.4
	No	16	94.1	22	95.7	25	80.6	3	37.5	12	70.6	2	28.6
	N/A	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Crush or shearing points on exposed moving parts?													
	Yes	0	0.0	1	4.3	1	3.2	1	12.5	2	11.8	3	42.9
	No	11	64.7	16	69.6	22	71.0	2	25.0	12	70.6	4	57.1
	N/A	6	35.3	6	26.1	8	25.8	5	62.5	3	17.6	0	0.0

Playgrounds older than 10 years have more general safety hazards present. There are more sharp points, corners, and edges, missing or damaged protective caps, and clothing entanglement hazards when equipment is older than 10 years of age.

Table 2. Impact Attenuation Performance (g-max and HIC) and the Fall Height of the Play Equipment

	<u>g -max</u> # Sites Below 200g				<u>HIC</u> # Sites Below 1000			
	3	2	1	0	3	2	1	0
0-3 feet (n=72)	71 (99%)	1 (1%)	0 (0%)	0 (0%)	71 (99%)	1 (1%)	0 (0%)	0 (0%)
>3-6 feet (n=88)	84 (95%)	2 (2%)	1 (1%)	1 (1%)	81 (92%)	4 (5%)	1 (1%)	2 (2%)
>6-9 feet (n=203)	185 (91%)	11 (5%)	2 (1%)	5 (2%)	174 (86%)	15 (7%)	6 (3%)	8 (4%)
>9-12 feet (n=22)	18 (82%)	2 (9%)	2 (9%)	0 (0%)	11 (50%)	9 (41%)	1 (5%)	1 (5%)
12+ feet (n=3)	2 (67%)	0 (0%)	0 (0%)	1 (33%)	1 (33%)	0 (0%)	1 (33%)	1 (33%)
TOTAL (n=388)								

Analysis of play structure's fall height, based on 3 foot incremental ranges, reporting the number of structures with all three, two, one, or zero test sites demonstrating g-max (or peak recorded acceleration) below 200 g's and a HIC score below 1000. Impact attenuation performance changed when structures were at the 9-12 foot range (sharp 9% decrease) by g-max and a 36% change by HIC. Structures less than 3 feet in height met impact attenuation criteria at all three test sites (99%). The majority of up to 6 feet in height (95%) met criteria at all three test sites.

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V. OTHER

BENEFITS AND CHALLENGES OF OVERPARENTING WITHIN AN EMERGING YOUTH SPORT

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Introduction

Across contexts, the increased influence of overparenting is an emerging concern for professionals facilitating youth programs (Garst & Gagnon, 2015; Wallace, Weybright, Rohner, & Crawford, 2015). Furthermore, with increasingly necessary expectations for youth to succeed at elite levels both academics and extracurriculars to gain entry into college, there is evidence of escalating parental pressure on youth to perform (Dunn, Dorsch, King, & Rothlisberger, 2016; Knight, Dorsch, Osai, Haderlie, & Sellars, 2016; Mirehie, Gibson, Kang, & Bell, 2019), potentially cultivating an environment conducive to overparenting behaviors (Hong, Hwang, Kuo, & Hsu, 2015). The negative consequences of overparenting are somewhat evident within academic contexts serving youth (Locke, Kavanagh, & Campbell, 2016); however, relatively little is known about the challenges and potential benefits associated with overparenting in out-of-school-time contexts (Gagnon & Garst, 2019). As such, the present study examines both the potential benefits and consequences associated with overparenting, relating to parental observed youth socioemotional development, parental volunteering and spending, as well as competitive longevity among youth within an emerging Olympic youth sport, indoor competition climbing. Specifically, the present study is guided by two groups of hypotheses. First, the primary hypotheses are that overparenting will have a positive direct effect on (H1A) youth sport spending, (H1B) years of volunteering, and (H1C) years of child participation in competition climbing, while having a negative effect on (H1D) parental observed socioemotional growth of their children. Additionally, it is hypothesized that increasing rates of (H2A) parental sport spending, (H2B) years of child participation in competition climbing, and (H2C) years of parental volunteering would have a positive direct effect on parental observed socioemotional growth.

Methods

Data were collected over a 45-day period in Winter 2016. Specifically, in partnership with USA Climbing, a web-based Qualtrics questionnaire was administered through a link provided via USA Climbing's Facebook page and member email list. Respondents were asked to identify their primary role within the climbing community (e.g., competition climber, coach, judge, route setter, parent of youth competition climber age 8-17). Those respondents who identified as parents of competition climbers were then redirected to a specific set of questions designed to better understand their unique role within the climbing community. This process led to 302 respondents identifying as parents of youth competition climbers. After screening the data for outliers, the final sample for the present study was 297.

Results

The study hypotheses were tested through a structural equation model (SEM), which initially indicated potentially problematic model fit: [$S/B\chi^2(340) = 880.471, p \leq .001, N-NFI = .902, CFI = .912, RMSEA = .072$ (90%, CI .066 to .078)]. Inspection of the covariance matrices and LaGrange Multiplier test results indicated a potential source of collinearity between years of parent volunteering and years of child participating in

competition climbing ($r = .579, p \leq .001$) and a potential significant increase in quality of model fit with the addition of a correlated error between the two variables. As such, the error terms between years of parent volunteering and years of child participating in competition climbing were covaried. This re-specification of the SEM led to an improvement in model fit towards acceptability, and the appropriateness of hypothesis testing: [$S/B\chi^2(339) = 779.299, p \leq .001, N-NFI = .921, CFI = .929, RMSEA = .065$ (90%, CI .058 to .071)]. Specifically, we failed to reject H1A through H1D, where overparenting had no significant effect on parental sport spending (H1A; $\beta = -.058, SE = .207, p = .354$), parental years of volunteering for competition climbing (H1B; $\beta = -.070, SE = .121, p = .272$), years of child participating in competition climbing (H1C; $\beta = -.107, SE = .124, p = .087$), or parental perceptions of developmental outcomes (H1D; $\beta = .047, SE = .043, p = .436$). Similarly, we failed to reject H2C, where years of parental volunteering for competition climbing had no effect on parental perceptions of developmental outcomes (H2C; $\beta = -.037, SE = .021, p = .509$). However, as hypothesized, both parental spending (H2A; $\beta = .261, SE = .004, p \leq .001$) and years of child participation in competition climbing (H2B; $\beta = .384, SE = .018, p \leq .001$) had a positive direct influence on parental perceptions of developmental outcomes.

Application to Practice Outcomes

The present study findings suggest a few implications for practice. First, due to the lack of relation between overparenting and parental sport spending, the tolerance of overparenting behaviors for those charged with the direct administration and facilitation of youth sport programs may have little financial upside. Second, as overparenting did not have any positive impact on a child's competitive longevity and parental perceptions of developmental outcomes, it is crucial for coaches to keep in mind to highly restrict overparenting tendencies among parents within the competitive sport environment in order to better ensure the youth sport performance success. As such, for children to become better athletes, coaches and parents should seek to provide youth athletes with a context that balances between a comfortable and uncomfortable environment (Mumford, 2015). Third, while tangential to the primary study purpose, the discovery of a positive association between increased time as a competitive climber and higher levels of parent observed socioemotional growth provides additional support for the value of repeated high-quality out-of-school-time experiences as contexts which promote and/or enhance youth development across socioemotional domains (Simpkins, 2015). Thus, coaches should negotiate with parents by offering a balanced learning and training environment in order to encourage years of sport participation among youth athletes, ensuring their children's positive socioemotional development as a result. Finally, relatively recent research has demonstrated a positive association between overparenting and child reports of increasing rates of risky behaviors (e.g., illegal drug use, shoplifting, self-harm) (Romm, McNamara-Barry, & Alvis, 2020). Therefore, an understanding of which settings overparenting does and/or does not have an influence on may allow for those in contexts where overparenting manifests at higher levels to develop training to mitigate the potentially deleterious effects of overparenting on their programs and services (e.g., those serving children with disabilities) (Gagnon, Garst, Kouros, Schiffrin, & Cui, 2020).

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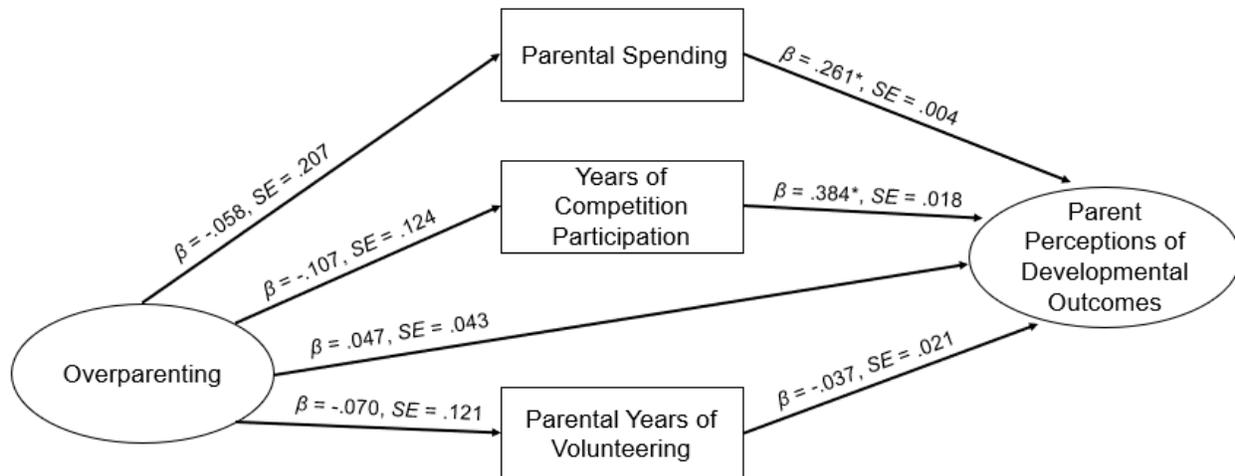


Figure 1. Structural Model of Results. $*p \leq .05$; β indicates standardized regression coefficient; SE indicates Standard Error; Parent Perceptions of Developmental Outcomes is a second order factor; Individual items, error terms, and covaried errors excluded for parsimony of presentation.

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