

Outdoor Recreation Motivations and Constraints of South Dakota Residents

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Abstract

Understanding participants' motivations and barriers towards recreation is essential for outdoor recreation providers to create a desirable leisure experience for users. The purpose of this study is to use residents of the state of South Dakota as the target population for understanding the local residents' motivation and constraints in outdoor recreation and to investigate the relationship between motivation and constraints in outdoor recreation. This research project was a collaboration between South Dakota Department of Game, Fish, and Parks (GFP) and South Dakota State University through an online survey platform in the fall of 2017 as a part of a broader outdoor recreation research project for the state. The results indicated: (1) the residents in South Dakota who participate in outdoor recreation were highly driven by internal motivations; (2) the leisure constraints of South Dakota's residents were similar to those found in a national study; (3) there was a significant, but weak correlation between recreation motivation and leisure constraints. Future studies might focus on specialized outdoor recreation users or non-participants to further the understanding of the needs and barriers to enjoying the outdoors.

Introduction

Understanding participants' motivations and barriers to recreation is essential for outdoor recreation providers to create a desirable leisure experience for users.^{1,2} Outdoor recreation is one of the most prevalent leisure choices; motivation for participation in outdoor recreation has been a central concern in this field to determine why and how people engage and behave in leisure time and to understand the consequences of leisure involvements.³ Leisure constraints are also an important construct in understanding the factors that limit people's participation in leisure activities, services, and current enjoyment. Although the relationship between motivation and leisure constraints has been discussed in literature to explain the negotiation process of involvement in leisure activity apart from the perceived constraints, further investigation on the linkage between these two concepts is needed for different types of activities.⁴

A nationwide study was conducted to assess the motivations and constraints of outdoor recreation participants across the United States. The nation's top motivations included: getting exercise, being with friends and family, keeping physically fit, observing scenic beauty, and being close to nature, whereas gaining a sense of accomplishment, gaining a sense of self-confidence, and talking to new people were among the least common motivations for users. The report also indicated that the top five frequent constraints to participating in outdoor recreation consisted of being too busy with family responsibilities, high equipment costs, lack of people to participate with, lack

of skills or abilities, and physical disability. Less common constraints included having household members with a disability and fear of being hurt by other people.⁵

Although the national study is useful in understanding the overall commonalities in the United States, lack of local and regional studies might overlook the uniqueness and characteristics of a specific location. Motivation and perceived constraints for participating in outdoor recreation differ based on socio-demographic differences (such as in age, gender, or geographic location) that shape perceptions and opportunities in choice of leisure behavior.⁵ Other factors that affect motivation or provide constraints may include weather, economics, and information. As outdoor recreation has become symbolic of the American lifestyle, the state park division in South Dakota has recognized the need of further understanding the needs and barriers of state residents in 2013 and decided to take a proactive approach to conduct statewide studies in assisting to provide high quality outdoor recreation resources and opportunities for the public.⁶ Therefore, the purpose of this study is to use residents of the state of South Dakota as the target population to understand local residents' motivations and constraints in outdoor recreation and investigate the relationship between motivations and constraints in outdoor recreation.

Recreation Motivations

Recreation motivations have been of interest to academics and practitioners in explaining and determining why people

participate in outdoor recreation and how to fulfill their desired needs. Motivations are factors that direct a person's actions and are generally categorized in two types: intrinsic and extrinsic motivation.⁷ Individuals who are intrinsically motivated take part in an activity for the internal fulfillment that accompanies the activity. Alternatively, individuals who are extrinsically motivated participate in an activity due to some type of reward or punishment at the end of the activity. Intrinsic motivation has been defined in four approaches: free-choice, interest and enjoyment, optimal challenges, and innate psychological needs such as autonomy, competence, and relatedness.⁸ Researchers also applied self-determination theory to explain extrinsic motivation with four approaches to characterize regulations. Integrated regulation refers to actions that are highly aligned with a person's goals and values, identified regulation refers to the acceptance of a behavior because it aligns to a person's goals and values, introjected regulation references behaviors that occur due to external values or attitudes, often associated with avoiding negative opinions from other people, and external regulation refers to behaviors people take part in for the sole purpose of earning a reward or avoiding punishment at the end of a behavior.⁹

Outdoor recreation or leisure participation usually fosters a freedom of choice and intrinsic motivation, while self-determination in leisure time engagement is fostered by providing opportunities for personal choice and control, using rewards to reinforce the experience, and encouraging the internalization and integration of extrinsic

regulation.¹⁰ Internal motivators have been commonly emphasized in studying outdoor recreation. Outdoor recreation motivation has been evaluated through assessing the importance of desired experiences, such as achievement or sense of accomplishment, enjoyment of nature, escape from daily life, and socialization in the outdoors with family and friends.¹¹ One study applied motivation theory to investigate usage of Georgia State Parks.¹² The results of the study identified four factors that influence common motivations for outdoor recreation, including social interaction, physical health and fitness, relaxation and restoration, and nature interaction.

Leisure constraints in outdoor recreation

Leisure constraints are defined factors that individuals experience that may inhibit or stop participation in an activity.¹³ In the past three decades, leisure constraints theory has evolved and applied to various leisure activities including sport, travel, and outdoor recreation. There are three types of leisure constraints commonly discussed in literature. Intrapersonal constraints refer to internal constraints regarding an individual's internal attitudes and feelings towards an activity, such as the fear of nature, while interpersonal constraints concern an individual's personal relationships and ability to find companions to participate in activities with, such as having no friends or family to go hiking with. Finally, structural constraints refer to external constraints related to the availability of resources necessary to participate in leisure activities, including the lack of time or money to participate in outdoor recreation.¹⁴

More recently, a hierarchical model and approach emphasizing the "negotiation" process has been proposed.¹⁵ This model explains how individuals overcome and negotiate constraints against participation. For example, individuals must first overcome intrapersonal constraints, followed by interpersonal constraints, and lastly structural constraints.^{11,13} Negotiation strategies include time management, financial decisions and adjustments, and skill and technique acquisition.¹⁵ The negotiation model suggests that constraints are not permanent barriers that inhibit leisure participation. Rather, people have the ability to overcome constraints.¹¹

Various other researchers have proposed alternative theories to the hierarchical model of constraints. Leisure constraints have also been categorized into two groups: static and dynamic. Static characteristics do not change much over time while dynamic constraints are variable.⁸ Other theorists proposed four categories of structural constraints: natural environment structural constraints, social

environment structural constraints, territorial structural constraints, and institutional structural constraints.¹⁶

Methods

The data for this manuscript was derived from larger outdoor recreation research in South Dakota that included both residents and visitors. For the purpose of the study, we only included the cases self-identified as South Dakota residents for further analysis. We collected data through convenience sampling, reaching out to as many potential participants as possible. The Division of Parks and Recreation of South Dakota Department of Game, Fish, and Parks (GFP) shared the survey information via email invitation and social media to the general public. The online survey was available for two months in the fall of 2017. Prior to data collection, the South Dakota State University (SDSU) Institutional Review Board (IRB) approved the study (IRB-1707001-EXM). There were 1,888 research participants self-identified as South Dakota residents, but only 1,212 completed the survey. Incomplete surveys included missed responses and skipped questions and were excluded from further analysis. The completion rate of the public survey was approximately 58%.

The survey questionnaire was developed by adapting several instruments to fit the research purpose: 18 items from Outdoor Recreation Motivations, and 20 items from Constraints to Outdoor Recreation.^{2,8,11,12} The researchers integrated these instruments' items to avoid duplications and modify a few items, including weather condition and aging, based on the feedback from GFP's staff in order to fit the needs of the target populations. Research participants rated each item of motivation and constraints using a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), where a higher score indicated a higher level of motives and barriers involved in participating in outdoor recreation. The Cronbach's alphas of the outdoor recreation motivation and constraints to outdoor recreation were .88 and .89 respectively.

General demographic information was collected including age, gender, race, household income, employment status, and education for an understanding of the research participants. A behavioral component was included to determine the outdoor recreation participation frequency of research participants in the past year. Descriptive analysis was employed to explain South Dakota residents' outdoor recreation motivations and constraints. Finally, the research participants' total scores of outdoor recreation motivations and leisure constraints were computed. Pearson r correlation was used to investigate the relationship between outdoor recreation motivations and leisure

constraints. A two-tailed test at a level of 0.05 significance was used to evaluate the correlation between factors.

Results

A majority of research participants were male (73.3%) and between the age of 35 to 64 (62.7%). Slightly above 60 percent of participants had a Bachelor's degree or higher. More than 80% of research participants reported their household income during the past year was \$50,000 or more. A majority of research participants were employed in a full-time position, while 23.6% identified themselves as retired. Ninety-five percent of research participants were Caucasian/White, while other ethnic groups were relatively small. As for frequency of outdoor recreation participation, approximately 60% participated in some form of outdoor activities at least once a month in the last year.

The results indicate that the highest motives for participating in outdoor recreation are to *enjoy favorite activity* ($M = 4.55$, $SD = .68$) and *beautiful scenery* ($M = 4.42$, $SD = .68$) (Table 2). These dominant motives are followed by other motives of participating in outdoor recreation, such as for *relaxation* ($M = 4.37$, $SD = .72$), *experience peace/tranquility* ($M = 4.26$, $SD = .80$), and *to be with family and friends* ($M = 4.26$, $SD = .79$). Other mean scores of outdoor recreation motivations were above three out of five, except for *to meet new people* ($M = 2.77$, $SD = 1.00$).

The result of Person r correlation showed that a significant but negative correlation between participants' outdoor recreation motivation and constraints ($r = -.16$, $p < .001$).

Discussion

Understanding the local residents' motivations and constraints in outdoor recreation in South Dakota is essential for promoting outdoor recreation opportunities and providing quality and accessible outdoor areas and facilities for the state. Outdoor recreation provides potential environmental, social, and personal benefits to the community. With a proactive approach to foresee future needs and potential challenges, the study was able to identify the common motivations and perceived constraints among resident participants in outdoor recreation in South Dakota. Three major contributions in this study were:

1. The residents in South Dakota who participate in outdoor recreation were highly driven by internal motivations: enjoying the activity of choice, appreciating the beauty of nature, relaxing, and experiencing tranquility. They also participated in some form of

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Table 1: Demographics of Research Participants

Demographics & Frequency	Frequency	Percentage
<i>Gender</i>		
Male	914	73.3%
Female	333	26.7%
<i>Age</i>		
18-24	35	3.0%
25-24	145	12.5%
35-44	216	18.5%
45-54	227	19.5%
55-64	287	24.7%
65-74	203	17.5%
75+	50	4.3%
<i>Education level</i>		
Less than high school	8	0.6%
High school graduates	157	12.6%
Some college or associate's degree	324	26.1%
Bachelor's degree	450	36.2%
Graduate or professional degree	304	24.5%
<i>Household income</i>		
Less than \$15,000	18	1.5%
\$15,000 to \$24,999	41	3.4%
\$25,000 to \$34,999	58	4.9%
\$35,000 to \$49,999	141	11.8%
\$50,000 to \$74,999	275	23.1%
\$75,000 to \$ 99,999	222	18.6%
\$100,000 to \$ 149,999	218	18.3%
\$150,000 and more	157	10.1%
Refused/I don't know	99	8.3%
<i>Employment status</i>		
Full-time employed	814	66.9%
Part-time employed	64	5.3%
Unemployed	10	0.8%
Retired	287	23.6%
Other	42	3.5%
<i>Race</i>		
White	1175	95.8%
Black	3	0.2%
American Indian	6	0.5%
Asian	4	0.3%
Pacific islander	1	0.1%
Two or more races	9	0.7%
Other	28	2.3%
<i>Outdoor Recreation Frequency Last Year</i>		
Two or more time per week	428	35.3%
About once per week	300	24.7%
About once or twice per month	239	19.8%
Several time during the year	185	15.3%
Once or twice during the year	32	2.6%
None last year	24	2.0%
Never	4	0.3%

Table 2: Summary of Descriptive Analysis of Outdoor Recreation Motivation

Motivations	Mean	SD
To enjoy my favorite activity	4.55	0.68
To enjoy beautiful scenery	4.22	0.68
For relaxation	4.37	0.72
To experience peace/tranquility	4.26	0.80
To be with family and friends	4.26	0.79
To observe wildlife	4.22	0.82
To escape daily routine	4.11	0.89
For stimulation and excitement	4.07	0.87
To keep physically fit	3.84	0.94
To feel at one with nature	3.82	0.97
To experience new things	3.78	0.90
To develop skill and knowledge	3.74	0.88
To use my outdoor gear/equipment	3.72	1.00
To challenge myself	3.71	0.98
To gain sense of accomplishment	3.59	0.95
To learn about the environment	3.49	0.96
To develop confidence in myself	3.10	1.03
To meet new people	2.77	1.00
Total Motivation*	69.71	9.39

*Cronbach's alpha of motivation instrument = .88

Table 3: Summary of Descriptive Analysis of Outdoor Recreation Constraints

Constraints	Mean	SD
Don't have enough time	3.09	1.22
Parks and recreation areas are too crowded	2.86	1.11
Equipment costs are too high	2.74	1.07
Admission fees are too high	2.51	1.10
Activity fees are too high	2.48	1.13
Weather (i.e., extreme cold or hot temperatures)	2.39	1.08
Age (i.e. busy with kids activities now, unable to physically participate in the same activities, etc.)	2.34	1.13
Companions prefer other things	2.29	1.02
Don't have people to go with	2.30	1.13
The facility I want doesn't exist in parks	2.29	1.02
Lack of information	2.13	1.01
Don't have the skills or physical ability	2.07	1.00
Don't have necessary equipment	1.94	0.90
Nearby parks are dirty or poorly maintained	1.90	0.85
Concern about safety / crime	1.89	0.86
Don't feel welcome	1.88	0.86
Lack of interest	1.76	0.87
Lack of confidence	1.76	0.83
Afraid of getting hurt by animals /insects	1.66	0.86

*Cronbach's alpha of constraints instrument = .89

outdoor recreation at least once per week.

2. The leisure constraints of South Dakota's residents were consistent with those found in other existing studies on similar topics. For example, the stronger perceived constraints were structural, such as time and cost.^{5,17,18} Although overall interpersonal constraints and intrapersonal constraints were relatively less obvious than structural constraints, crowding issues at parks and recreation areas, unexpected weather conditions, and concern about aging were common barriers in the study.⁷
3. Although the correlation between research participants' recreation motivations and leisure constraints was statistically significant, the relationship might be identified as a small or weak relationship between the two variables.¹⁹ It is possible that the majority of research participants were "regulars" in outdoor recreation with high inner motivations and dedication to their favorite outdoor activities and being through "negotiation" process to overcome the various constraints. Although these findings make

a unique contribution to understanding outdoor recreation motivations and leisure constraints, focused on South Dakota residents, there are several limitations in the study. These limitations may provide opportunities for further inquiry. Convenience sampling and a single email invitation were the only approaches used to recruit potential research participants. Future studies might target specific segments or activity participants (hunters, anglers, and campers, for example) or compare motivations and constraints between outdoor recreation enthusiasts and non-outdoor recreation participants to further the understanding of the similarities and differences among groups. By doing so, outdoor recreation providers would be able to provide programs for South Dakota residents with different levels of experience, skills, and commitment in outdoor recreation to assist in overcoming constraints. Moreover, the study primarily applied descriptive analysis with correlation testing for a comprehensive understanding of South Dakota residents' motivations and constraints in their outdoor recreation pursuit. A more advanced analysis might reveal further in-depth information from the study.

Conclusion

The study of South Dakotans' perceptions of outdoor recreation revealed

trends in both participants' motivations and constraints. Based on the findings, people in South Dakota are primarily intrinsically motivated to take part in outdoor recreation. The most common motivations among respondents included: to enjoy my favorite activity, to enjoy beautiful scenery, for relaxation, to experience peace/tranquility, and to be with family and friends. A majority of survey participants have a genuine, internal desire to participate in various outdoor recreation activities. Recreation providers can use this information to improve their parks in facilities in a manner that will increase users' intrinsic motivations.

South Dakota's population primarily reported structural constraints that inhibit their participation in outdoor recreation. Participants listed lack of time, overcrowding, high equipment costs, and high admission fees as top constraints to their involvement in recreation. Based on the hierarchical model of constraints, structural constraints are the last barrier people must overcome in order to participate in an activity. Therefore, South Dakotans are willing to overcome both intrapersonal and interpersonal constraints but struggle to overcome structural constraints. Outdoor recreation providers can utilize this information to make parks and facilities more accessible to a more diverse population.

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