THE EFFECTS OF PERCEIVED LEISURE CONSTRAINTS AMONG KOREAN UNIVERSITY STUDENTS

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Abstract: This study is based on Crawford, Jackson, and Godbey's model of leisure constraints (1991), and examines the relationships between the influences of perceived constraints, frequency of participation, and health status in the context of leisure-time outdoor activities. The study was based on a sample of 234 Korean university students. This study provides further support for this model of leisure constraints: intrapersonal, interpersonal, and structural. The results indicated that the higher interpersonal constraints, the lower the frequency of activity participation. Moreover, the results demonstrated that highly interpersonally constrained participants tended to rate themselves lower with respect to mental heath. In addition, respondents who participated more frequently in these activities tended to give higher self-reports concerning their mental health.

Introduction

It is generally agreed that the popularity of outdoor recreational activities has dramatically increased over the last three decades. One example of the many indicators that suggest the increased popularity of outdoor activities is that, as early as 1975, over 200 colleges and universities offered courses or degrees in outdoor adventure pursuits (Hale, 1978). Since then, many factors, governmental, social, and economic, have combined to create more opportunities for outdoor recreational pursuits (McLellan, 1986). Nevertheless, many outdoor activities demand a certain level of outdoor and/or technical skill in the recreational setting. Requirements may include equipment or material as well as a geographically acceptable setting. These requirements often serve to limit or even prohibit new or continuing participation in outdoor activities (Meier, 1977; White, 1978).

Since the mid-1980s, a growing body of research has been developed to investigate what factors influence the extent of an individual's interest and participation in leisure activities. Many researchers have contributed to our understanding of the influence of constraints on leisure activity participation (Crawford & Godbey, 1987; Crawford et al., 1991; Henderson, 1991; Henderson, Stalnaker & Taylor, 1988; Samdahl & Jekubovich, 1997; Kay & Jackson, 1991; Jackson & Rucks, 1995; Jackson, Crawford, & Godbey, 1993) and they have developed a variety of conceptual and methodological approaches that serve to explicate how constraints on leisure activity might operate. Crawford and Godbey (1987) categorized constraints into three categories according to the way that they influence participation: intrapersonal, interpersonal, and structural constraints. Intrapersonal constrains involve "individual psychological states and attributes" (p. 122), interpersonal constraints are "the result of interpersonal interaction or the relationship between individuals' characteristics" (p. 123), and structural constraints are "intervening factors between leisure preference and participation" (p. 124). Crawford and Godbey were critical of traditional understandings of constraint which were assumed to play an intervening role in the leisure preference-participation relationship, as "only one of the ways in which barriers may be associated with preferences and participation" (p. 119). They also noted that these constraints may be interrelated. They suggested that an individual may experience constraint on any one of the three constraints levels. According to Crawford et al. (1991), intrapersonal constraints are the most powerful of the three types of constraints and structural constraints are the least powerful.

The benefits of participation in outdoor activities can be divided into the categories of, for example, psychological, sociological, educational, and physical, factors, and can be evaluated in this way on an individual or case-by-case basis. Such benefits as a general improvement in motor skills, strength, coordination, exercise, and balance may result from outdoor participation (Cullingford, 1979). One area of potential benefits that tends to be overlooked is the improvement in psychological fitness of the participant, in addition to physical fitness. Here, it is assumed that the factors that limit or prohibit engagement in leisure participation have a direct impact on an individual's heath, both physical and psychological.

The primary purpose of this study, therefore, has been to examine relationships between the categories of influence of perceived constraints in outdoor recreational activities among a sample of Korean university students. The following research questions have guided this study: (a) What is the factor structure of perceived constraints among this sample? (b) Does the level of perceived constraint influence frequency of participation in outdoor recreational activities? (c) Do perceived constraint factors influence self-reported health status? (d) Does frequency of participation in outdoor recreational activities influence self-reported health status?

Methodology

Selection of Respondents

Questionnaires were initially given to 1,014 individuals of all ages. For the purposes of this study, 234 university students were selected, from freshman to seniors, who had visited two national parks located in Seoul, Republic of Korea. Data collection took place during June 2000. Just over half (57.7%, N=120) of the participants were male and

just under half (41.8%, N=87) were female. The sample ranged in age from 18 to 50 years, with a mean age of 21. Approximately one third of the sample (37%, N=77) reported that they were freshmen, followed by sophomores 28.8% (N=60), seniors 20.7% (N=43), and juniors 13.5% (N=28). The household income of the sample was also diverse, with 20% (N=40) of the sample earning $20,001-$30,000, 17.3% (N=36), $30,001-$50,000, 14.4% (N=30) $10,001-$20,000, 11.5% (N=24) less than $10,000, and 4.8% (N=10) making more than $50,001 (all $ denominations in this study indicate $US).

Procedure

An on-site questionnaire was developed by the researchers and divided into four sections designed to measure perceived leisure constraint, leisure participation, and health status. The first section collected information regarding *constraints* in outdoor recreational activities. A five point Likert rating scale measuring leisure constraints, ranging from 1=has not influenced me at all to 5=has influenced completely, was used to assess the influence of each of thirty statements, as limiting or prohibiting leisure activity. The items used to measure level of constraint follow Oh and Caldwell's work (1999), based on Crawford et al.'s research (1991), that described three discrete types of constraints (intrapersonal, interpersonal, and structural constraints). In the second section, participants were asked to report their frequency of activity participation in outdoor recreational activities (e.g., hunting, fishing, camping, golf, skiing, canoeing/kayaking, etc) in a typical week. For the third section, participants were asked to report their perceived physical and mental health. These variables are adopted from the sub-scales of the Rand Medical Outcomes Study Health Survey (MOS SG-20, McDowell & Newell, 1996). In regard to physical health, respondents were asked to evaluate each of six statements with respect to *how long (if at all) their health limited their activities* using a three point Likert scale where 1=limited for more than 3 months; 3=not limited at all. For mental health, participants responded to five hypothetical questions such as: "How much of the time over the past few months have you been a very nervous person?" responding on a six point Likert scale where 1=all of the time, 6=none of the time. In the last section, individuals were asked to provide socio-demographic variables regarding their gender, age, household income, and school year.

Measures

Descriptive statistics were used to profile the sample. A principle component factor analysis with a varimax rotation was adopted to determine if there were distinct constraint dimensions among the thirty constraint factors revealed by Korean university students. Thirty constraint items in outdoor recreational activities were initially used to represent three types of constraints: intrapersonal, interpersonal, and structural. Since these three dimensions were expected to be of approximately equal importance, a varimax rotation was used to minimize the number of variables that had a high loading on a factor and to enhance the interpretability of the results. Items with an Eigenvalue greater than one and a factor loading of at least .50, were selected for each factor. The reliability of the factor dimensions was computed through the reliability procedure in SPSS for windows. A path coefficient analysis using multiple regression analyses was conducted to examine (a) whether perceived constraints and frequency of activity participation influenced physical and/or mental health; (b) whether perceived constraints influenced the frequency of activity participation.

Results

The six factors were defined as follows, "psychological" (Alpha = .85, seven items), "accessibility" (Alpha = .90, five items), "time" (Alpha = .87, five items), "partner" (Alpha = .84, five items), "facility" (Alpha = .81, two items), and "safety" (Alpha = .83, two items). Four items had a low reliability coefficient and were, therefore, deleted. The factors "psychological" and "safety" were categorized as intrapersonal constraints. The factors "accessibility," "time," and "facility" were defined as structural constraints. The factor "partner" is considered to be an interpersonal constraint. The findings verified the importance of all three distinct constraint dimensions from Crawford and Godbey's (1987) study, intrapersonal, interpersonal, and structural. For testing further research questions, we have used these three factors of perceived leisure constraint.

Next, Pearson correlation coefficients were obtained to examine multicollinearity among the variables. Since multiple factors influence health, it was anticipated that some of the independent variables would be significantly correlated. A correlation matrix, including all independent variables and dependent variables, indicates significant correlations, ranging from .060 to .627 (Table 2).

A path coefficient analysis using multiple regression analyses was conducted to further test the significance of the research questions; it included perceived leisure constraint, frequency of participation in outdoor recreational activities, and perceived health status, as well as demographic variables. Each variable was regressed on the variables upon which it was assumed to depend. The standardized beta weights are determined by the path coefficients, presented in Figure 1, taken from an analysis of the full model.

As Figure 1 illustrates, the findings indicate that frequency of participation in outdoor recreational activities was significantly influenced by income (β = .234, p = .006) and interpersonal factors (β = -.242, p = .019). In this regression model, the independent variables accounted for 23% (Adj. R^2 = .23) of the variance in the dependent variable frequency of activity participation. Thus, as people have more income, their frequency of participation in outdoor recreational activities tends to increase. Conversely, if one experiences higher interpersonal constraints, his/her leisure participation tends to decrease. This study found no significant relationship between age, gender, school year, intrapersonal, and structural constraints, on the one hand, and frequency of activity participation, on the other.

Table 1. Constraint Dimensions as a Result of Factor Analysis

Factors/Items	Factor 1 Psychological	Factor 2 Accessibility	Factor 3 Time	Factor 4 Partner	Factor 5 Facility	Factor 6 Safety
Lack of energy	.784					
No physical strength or capability	.756					
Not feeling fit enough	.734					
Not interested	.683					
Not confident	.635					
Did not enjoy before	.629					
Health-related problem	.536					
Transportation takes time		.786				
No opportunity near home		.775				
No money		.767				
Expensive fee		.756				
Cost of equipment		.665				
Busy life			.823			
Work/study to do			.789			
No time			.764			
Social commitment			.662			
Family commitment			.657			
No one teach me				.765		
Not necessary skills				.760		
No one to participate with				.695		
Don't know where to participate				.612		
Friends don't have time				.592		
Inadequate facilities					.764	
Inconvenient facilities					.737	
Afraid of getting hurt						.847
Safety						.757
Eigenvalue	4.019	3.755	3.438	2.899	1.922	1.867
Variance Explained	15.456	14.441	13.222	11.152	7.392	7.180
Cumulative Variance	15.456	29.898	43.120	54.272	61.663	68.844
Alpha	.85	.90	.87	.84	.81	.83
Scale Mean Score	2.04	2.88	2.67	2.34	2.52	2.04

Table 2. Pearson Correlation Coefficients for Perceived Leisure Constraints, Frequency of Activity Participation, Perceived Physical Health, and Perceived Mental Health

	Age	Income	School year	Intrapersonal	Interpersonal	Structural	LP	PH	MH
Gender	-.054	***.187**	.091	-.002	.093	.060	-.041	-.018	***-.170**
Age		-.002	*****.464**	-.109	-.083	-.027	***.136**	***-.182**	.079
Income			-.165	.088	-.033	***-.140**	****.219**	-.041	.011
School year				-.049	.049	***.140**	-.057	.034	.057
Intrapersonal					*****.477**	*****.556**	***-.155**	-.125	****-.208**
Interpersonal						*****.627**	****-.250**	-.048	*****-.274**
Structural							***-.147**	-.038	***-.190**
Participation								.046	***.184**

* $p < .05$; ** $p < .01$; *** $p < .001$

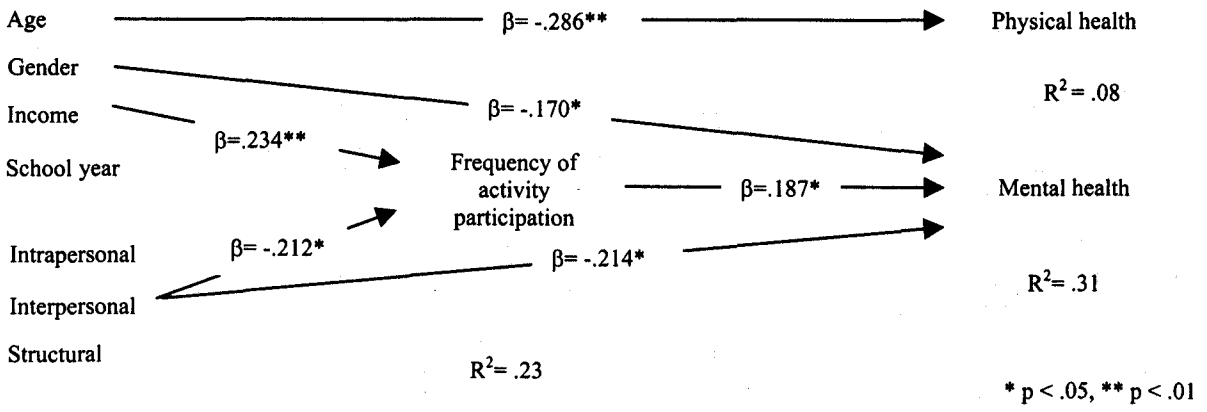

Figure 1. Results of a Path Analysis of the Leisure Constraints Model

Demographic variables, three constraint factors, and the frequency of activity participation were used to predict physical and mental health. The findings indicated that only age, among the socio-demographic variables, has a significant negative relationship with physical health (β = -.286, p = .003, Adj. R^2 = .08). As individuals age, they tend to rate themselves lower on physical health. No statistically significant relationship was found, however, for the relationship between perceived leisure constraints and physical health. Moreover, the results indicated that females tend to rank themselves lower on mental health scores (β = -.170, p = .041). No other socio-demographic variable influenced mental health. Examination of the beta weights indicated a positive relationship between frequency of activity participation and mental health status (β = .187, p = .018). Individuals with more frequency of activity participation also rated the highest on perceived mental health. There is a negative relationship between interpersonal constraints and mental health status (β =-.214, p = .045). If individuals perceived higher interpersonal constraints, they tended to rate themselves lower on mental health. With respect to mental health, the overall regression model explained 31.3% of the variance in the dependent variable.

Discussion

The initial results of this study suggested that there are indeed distinct factors that influence the structure of constraint domains. Psychological, accessibility, time, partner, facility, and safety factors can all serve as significant constraints on participation in outdoor recreational activities. Iso-Ahola and Mannell (1985) note that certain constraints may be stable throughout an individual's life span, over time, and in a variety of settings. The findings presented in this study suggest that some constraints have a negative influence on the levels of change of participation in leisure activities. According to Shaw and her colleagues (1991), however, higher levels of perceived constraints do not necessarily result in less leisure activity participation. Individual behavioral change is not easily determined by simple lack of availability in leisure activity. Furthermore, of the three types of leisure constraints examined, only interpersonal constraints have been found to effect participation levels. We assume that there may be some latent variable that moderates leisure participation. This may be a reflection of what is referred to in the literature about leisure constraint as a "negotiation strategy." We suggest, therefore, that future research should investigate what the moderating factors are that have a direct influence on the relationship between leisure constraints and leisure participation.

The results suggest that there are similarities between the perception of constraints among this Korean sample and those of participants in previous North American investigations, despite cultural differences with respect to activity type and recreational provision. Our study is important only with respect to the results of three constraints factors on outdoor recreational activity types. However, at least some of this may be due to the fact that many outdoor recreational activities are also luxurious leisure activities. The outdoor, recreational, activities used in this study, such as golf, skiing, hunting, windsurfing/water skiing are more likely to be money consuming activities. These activities may also be seasonal activities, to a greater or lesser extent. It might be difficult, for example, for university students to find people who have similar recreational interests and can afford to play and enjoy their leisure activity together. Further empirical research is recommended to expand this analysis, by including specific activity types according to a classification of leisure constraint categories.

As anticipated, the findings empirically support the perception that gender, interpersonal constraints, and frequency of activity participation were significant determinants of perceived mental health status. The findings also help to clarify how activity participation is influenced by peer absence. It was expected that university students would be less likely to participate in outdoor recreational activities in their leisure time, due to lack of money, support, and/or the availability of friends. Interpersonal constraints for Korean university students are considered to be major impediments to the perceived freedom to participate in new or continuing outdoor recreational activity.

Although the leisure constraints model followed in this study is based on theoretical assumptions, it has some empirical support; nevertheless, the results should be interpreted in light of the methodological limitations of the study. We used overall, outdoor recreational types to predict outdoor recreational activity participation. A more specific categorization of leisure activity types might have yielded different results. Future research on leisure constraints may need to take into consideration the key elements of a network of factors related to leisure constraints in leisure activity participation, which often involves constraint negotiation.

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