

Table of Contents

Keynote Address.....	1
Making research more relevant: Give it a try! <i>David W. Lime.....</i>	3
Crowding Issues in Resource Management.....	13
Balancing tradeoffs in the Denali Wilderness: An expanded approach to normative research using stated choice analysis. <i>Steven R. Lawson and Robert Manning.....</i>	15
Coping, crowding and satisfaction: A study of Adirondack wilderness hikers. <i>Andrew K. Johnson and Chad Dawson.....</i>	25
Perceived crowding at Boston Harbor Islands National Park Area. <i>Megha Budruk, Robert E. Manning, William A. Valliere, and Benjamin Wang.....</i>	32
Transportation planning and social carrying capacity in the National Parks. <i>William Valliere, Robert Manning, Megha Budruk, Steven Lawson, and Benjamin Wang.....</i>	36
The Role of Information in Travel Planning Decisions.....	41
Assessing information needs and communication behaviors of National Forest summer visitors. <i>James D. Absher, Brijesh Thapa, and Alan R. Graefe.....</i>	43
The commodification process of extreme sports: The diffusion of the X-Games by ESPN. <i>Chang Huh, Byoung Kwan Lee, and Euidong Yoo.....</i>	49
Marketing National Parks: Oxymoron or opportunity? <i>Alan K. Hogenauer.....</i>	53
Demographic Trends in Outdoor Recreation Participation & Travel.....	61
Wildlife-associated recreation in the North Central Region: Participation patterns and management implications. <i>Allan Marsinko and John Dwyer.....</i>	63
The New England travel market: Generational travel patterns, 1979 to 1996. <i>Rod Warnick.....</i>	69
Welcome center research: How valuable is secondary research? <i>Lousia Meyer, Tara Patterson, Lori Pennington-Gray, Andrew Holdnak, and Brijesh Thapa.....</i>	76
Methodology in Outdoor Recreation Research I: Interventions.....	79
Unique programming: An examination of the benefits of a free choice program. <i>Dorothy L. Schmalz, Deborah L. Kerstetter, and Harry C. Zinn.....</i>	81
Outdoor experiential-based training: Motivational and environmental influences affecting outcomes. <i>Teresa (Birdie) High and Alan R. Graefe.....</i>	85
Use of experience sampling method to understand the wilderness experience. <i>Lynn Anderson.....</i>	92
Encounters and the guided group trip: Going "on-the-scene" to examine the situational interpretation of encounters. <i>Erin K. Sharpe.....</i>	98

Leisure Motivations of Outdoor Recreationists.....	105
Differences in SCUBA diver motivations based on level of development. <i>Sharon L. Todd, Alan R. Graefe, and Walter Mann.....</i>	107
Skier motivations: Do they change over time? <i>Erin White and Lori Pennington-Gray.....</i>	115
Sociocultural perspectives of trapping revisited: A comparative analysis of activities and motives 1994 and 2000. <i>Rodney R. Zwick, Ron Glass, Kim Royar, and Tom Decker.....</i>	118
Resource Management & International Tourism Development.....	125
The impact of potential political security level on international tourism. <i>Young-Rae Kim, Chang Huh, and Seung Hyun Kim.....</i>	127
Future of the Korea National Parks: A preliminary Delphi study of key experts. <i>Byung-kyu Lee and Wilbur F. LaPage.....</i>	130
User Satisfaction in Outdoor Recreation.....	133
A preliminary analysis of Florida State Park satisfaction survey data. <i>Andrew Holdnak, Stephen Holland, and Erin Parks.....</i>	135
Recreationists in the Columbia River Gorge National Scenic Area: A survey of user characteristics, behaviors, and attitudes. <i>Robert C. Burns and Alan R. Graefe.....</i>	138
Visitor satisfactions: Backcountry and wilderness users in the White Mountain National Forest. <i>Chad P. Dawson, Rebecca Oreskes, Frederick Kacprzyński, and Tom More.....</i>	144
Participants' perceptions of the 1997-1998 Missouri State Parks Passport Program. <i>Yi-Jin Ye and Jaclyn Card.....</i>	153
Environmental Knowledge, Concern, Behavior & Education.....	161
An evaluation of Appalachian Trail hikers' knowledge of minimum impact skills and practices. <i>Peter Newman, Robert Manning, Jim Bacon, Alan Graefe, and Gerard Kyle.....</i>	163
Who cares and who acts? Different types of outdoor recreationists exhibit different levels of environmental concern and behavior. <i>Mario F. Teisl and Kelly O'Brien.....</i>	168
Visitor behavior and resource impacts at Cadillac Mountain, Acadia National Park. <i>Rex Turner and Wilbur LaPage.....</i>	175
Leisure Constraints of Outdoor Recreationists.....	181
The effects of perceived leisure constraints among Korean university students. <i>Sae-Sook Oh, Sei-Yi Oh, and Linda L. Caldwell.....</i>	183
Exploration of the influence of self-efficacy on recreation participation levels of individuals with visual impairments who use dog guides. <i>Laurlyn K. Harmon and Linda L. Caldwell.....</i>	188
Urban Recreation & Development Issues.....	193
An integrative concept for visitor monitoring in a heavily used conservation area in the vicinity of a large city: The Danube Floodplains National Park, Vienna. <i>Arne Arnberger, Christiane Brandenburg, and Andreas Muhar.....</i>	195

Linkages in the use of recreation environments across the urban to ex-urban spectrum by urban residents. <i>John F. Dwyer and Susan C. Barro</i>	202
The role, use and benefits of natural recreation areas within and near residential subdivisions. <i>Christine A. Vogt and Robert W. Marans</i>	208
Economic Impacts & Non-economic Benefits of Tourism	215
New York State's 1999 agritourism business study. <i>Diane Kuehn and Duncan Hilchey</i>	217
Rail-trails and special events: Community and economic benefits. <i>Charles Nelson, Christine Vogt, Joel Lynch, and Daniel Stynes</i>	220
Private business perceptions of transportation issues and the Island Explorer Bus system at Acadia National Park, Maine. <i>Rea Brennan, Marc Edwards, and John J. Daigle</i>	225
Management Decision-making & Planning for Outdoor Recreation	231
Integrating resource, social and managerial indicators of quality into carrying capacity decision making. <i>Peter Newman, Robert Manning, and Bill Valliere</i>	233
Redefining roles of science in planning and management: Ecology as a planning and management tool. <i>Greg Mason and Stephen Murphy</i>	239
Impacts of Wildlife Viewing	247
Elk viewing in Pennsylvania: An evolving eco-tourism system. <i>Bruce E. Lord, Charles H. Strauss, and Michael J. Powell</i>	249
Competing values: A case study of Pennsylvania's elk herd as a tourism attraction. <i>Jeffrey A. Walsh and Leonard K. Long</i>	253
Impacts of wildlife viewing at Dixville Notch Wildlife Viewing Area. <i>Judith K. Silverberg, Peter J. Pekins, and Robert A. Robertson</i>	260
Methodology in Outdoor Recreation Research II: Instruments & Methods	267
Effects of pretesting with the adventure recreation model instrument. <i>Anderson Young, Lynn Anderson, and Dale Anderson</i>	269
Modeling nonlinear preferences. <i>Donald F. Dennis</i>	275
Personal Relevance, Involvement & Loyalty in Outdoor Recreation	279
Psychological commitment as a mediator of the relationship between involvement and loyalty. <i>Joohyun Lee and Alan Graefe</i>	281
Gender Issues in Outdoor Recreation & Resource Management	289
Older Chinese women immigrants and their leisure experiences: Before and after emigration to the United States. <i>Ching-Hua Ho and Jaclyn A. Card</i>	291
Towards an understanding of gender differences with respect to whitewater rafting preferences. <i>Duarte B. Morais, Traci Zillifro, and Susanne Dubrouillet</i>	298

Trails over Land & Water: Issues of Multiple Use & Conflict	305
Use and user patterns among Michigan licensed Off-Highway Vehicles ownership types. <i>Joel A. Lynch and Charles M. Nelson</i>	307
Recreation conflict of riparian landowners with personal watercraft and motorboat use along the New York's Great Lakes. <i>Cheng-Ping Wang and Chad P. Dawson</i>	314
User preferences for social conditions on the St. Croix International Waterway. <i>Jamie Hannon, John J. Daigle, and Cynthia Stacey</i>	320
Security along the Appalachian Trail. <i>James J. Bacon, Robert E. Manning, Alan R. Graefe, Gerard Kyle, Robert D. Lee, Robert C. Burns, Rita Hennessy, and Robert Gray</i>	326
Trails research: Where do we go from here? <i>Michael A. Schuett and Patricia Seiser</i>	333
Attachments to Places & Activities in Outdoor Recreation	337
Visitor meanings of place: Using computer content analysis to examine visitor meanings at three National Capitol sites. <i>Wei-Li Jasmine Chen, Chad L. Pierskalla, Theresa L. Goldman, and David L. Larsen</i>	339
The importance of visitors' knowledge of the cultural and natural history of the Adirondacks in influencing sense of place in the High Peaks Region. <i>Laura Fredrickson</i>	346
Attachments to places and activities: The relationship of psychological constructs to customer satisfaction attributes. <i>Thomas D. Wickham and Alan R. Graefe</i>	356
An exploration of human territoriality in forest recreation. <i>Harry C. Zinn, Laurlyn K. Harmon, Brijesh Thapa, Deborah L. Kerstetter, and Alan R. Graefe</i>	365
Community attachment and resource harvesting in rural Denmark. <i>Rodney R. Zwick and David Solan</i>	369
Poster Session	375
The political economy of wilderness designation in Nova Scotia. <i>Glyn Bissix, Leah Levac, and Peter Horvath</i>	377
The Westfield River Watershed Interactive Atlas: Mapping recreation data on the Web. <i>Robert S. Bristow and Steven Riberdy</i>	383
Park resources as an essential to urban societies. <i>Kristin Dion, Doug Stefancik, Serena Hawkins, and Robert Bristow</i>	386
Parks and recreation employment status: Implications from a civil service perspective. <i>Joel Frater and Arthur Graham</i>	390
Natural resources interpretation: The role of researchers – A new-old approach. <i>Mark Gleason</i>	395
Mountain bike trail compaction relation to selected physical parameters. <i>Jeff Hale and Rodney R. Zwick</i>	399
Internet & branding: A perfect match or a fatal attraction? Analysis of fifty states of the U.S. official tourism websites. <i>Gyehee Lee, Liping A. Cai, Everette Mills, and Joseph T. O'Leary</i>	403

Job satisfaction among recreation practitioners. <i>Erin Parks and Andrew Holdnak</i>	411
Extensivity and intensity of grants usage in obtaining funding for recreation services and capital improvement projects among park and recreation agencies in the state of Michigan. <i>Jerry L. Ricciardo</i>	415
Resident camp directors, spirituality, and wilderness. <i>Michael Rule and Edward Udd</i>	418
Social groups preferences relation to motivations and ability levels of whitewater kayakers. <i>Seth Turner and Rod Zwick</i>	421
Management Presentation	427
Human preferences for ecological units: Patterns of dispersed campsites within landtype associations on the Chippewa National Forest. <i>Lisa Whitcomb, Dennis Parker, Bob Carr, Paul Gobster, and Herb Schroeder</i>	429
Roundtable Discussions	435
Creating recreation partnerships on private agricultural and forest land in the urban Northeast: A case study from the Great Meadows of the Connecticut River. <i>Robert L. Ryan and Juliet Hansel</i>	437
Applied research opportunities in developed campgrounds. <i>Carl P. Wiedemann</i>	443
Adapting the Recreation Opportunity Spectrum (ROS) for states lands planning. <i>Susan Bulmer, Linda Henzel, Ann Mates, Matt Moore, and Thomas A. More</i>	447
It's time to put the C.A.R.T. before the H.O.R.S.E. or Putting Critical, Analytical, and Reflective Thinking before "Handyman" Oriented Recreation Student Education. <i>David L. Jewell</i>	452
Index of Authors	457

**Methodology in
Outdoor Recreation
Research II:
Instruments & Models**

EFFECTS OF PRETESTING WITH THE ADVENTURE RECREATION MODEL INSTRUMENT

Anderson Young

Professor of Recreation and Leisure Studies, SUNY Cortland, Cortland, NY 13045

Lynn Anderson

Associate Professor and Chair of Recreation and Leisure Studies, SUNY Cortland, Cortland, NY 13045

Dale Anderson

Lecturer of Recreation and Leisure Studies, SUNY Cortland, Cortland, NY 13045

Abstract: The Adventure Recreation Model, first proposed and tested by Ewert and Hollenhorst (1989), attempts to describe participant characteristics and patterns of use in adventure recreation activities. The Adventure Recreation Model is based on the relationship of level of engagement in an outdoor recreation activity (ranging from beginner, to development, to commitment) with the variables of personal attributes of the participant (i.e., frequency of participation, skill/experience level, decision-making locus of control, and motivation factors) and activity/setting attributes (i.e., level of risk, social orientation, and environmental orientation). Because the Adventure Recreation Model is based on a developmental approach (i.e., movement from beginner to commitment), it would be desirable to use the Adventure Recreation Model instrument to measure changes in groups of participants before and after outdoor experiences. However, the instrument needs to be tested to determine the effects of exposure to the pretest. The purpose of this study was to determine if exposure to the Adventure Recreation Model instrument as a pretest had an effect on posttest scores on the instrument. Results showed that, overall, the instrument did not appear to have a pretest effect, with the exception of four out of 30 of the variables measured.

Introduction

The Adventure Recreation Model, first proposed and tested by Ewert and Hollenhorst (1989), attempts to describe participant characteristics and patterns of use in adventure recreation activities. According to Ewert (1989), the adventure model is based on the notion that the "seeking of risk and uncertainty of outcome" (p. 8) differentiate adventure recreation pursuits (e.g., rock climbing and backpacking) from other forms of outdoor recreation (e.g., hunting and fishing). The Adventure Recreation Model is based on the relationship of level of engagement in an outdoor recreation activity (ranging from beginner, to development, to commitment) with the variables of personal attributes of the participant (i.e., frequency of participation, skill/experience level, decision-making locus of control, and motivation factors) and activity/setting

attributes (i.e., level of risk, social orientation, and environmental orientation). Because the Adventure Recreation Model is based on a developmental approach (i.e., movement from beginner to commitment), it would be desirable to use the Adventure Recreation Model instrument to measure changes in groups of participants before and after outdoor experiences. However, the instrument needs to be tested to determine the effects of exposure to the pretest. The purpose of this study was to determine if exposure to the Adventure Recreation Model instrument as a pretest had an effect on posttest scores on the instrument.

Overview of the Adventure Recreation Model

According to Ewert and Hollenhorst (1989), the Adventure Recreation Model is based on the personal attributes of the participant, such as frequency of participation, skill/experience level, decision-making locus of control, and motivation factors, and on the activity/setting attributes, such as level of risk, social orientation, and environmental orientation. The model is reconstructed in Figure 1 to show how the participant and activity/setting attributes relate to each other. As can be seen in the model, participants are divided into categories of Introduction, Development, or Commitment based on their level of engagement in outdoor adventure. The Adventure Model suggests that as engagement level increases:

- skill level increases
- frequency of participation increases
- locus of control becomes more individualized
- preferred risk level increases
- preferences for natural conditions increase
- social context moves to solitary or expert-only groupings
- motivations of challenge, achievement, and risk taking increase or prevail.

The model allows for classification of participants based on their experience level. This classification, in turn, is related to the level that users experience, perceive, or desire in other elements of the outdoor adventure experience. The model, in theory, could help managers more closely target and/or manage programs and resources that are suitable for the participant. On a more theoretical level, the model could help researchers understand adventure recreation behavior.

Testing the Adventure Recreation Model

Attempts to more fully understand adventure recreation behavior have been a consistent theme in the research literature in the recreation field. Although Ewert and Hollenhorst first published the Adventure Recreation Model in 1989, earlier research had led to its development. In an earlier study, Ewert (1985) examined the relationship between participant motivations for mountaineering and their level of experience. He found that type of motivation (intrinsic or extrinsic) differed for participants, depending on their self-reported level of experience in the activity. More experienced participants tended to have more

intrinsic motivations and inexperienced participants more extrinsic motivations for mountaineering. The results of this study led to the development of a more complex model, in which type of motivation was one variable among several others associated with adventure recreation. This model, the Adventure Recreation Model, was presented by Ewert (1989), and tested by Ewert and Hollenhorst (1989). According to Ewert (1989), the adventure model was based on the notion that the "seeking of risk and uncertainty of outcome" (p. 8) differentiates adventure recreation pursuits (e.g., rock climbing and

backpacking) from other forms of outdoor recreation (e.g., hunting and fishing). Further, Ewert and Hollenhorst (1989) contended that models addressing recreation or outdoor recreation participation inadequately explained or even addressed the *risk-seeking* dimensions adventure experience and adventure activities (p. 127). Their 1989 study found support for the proposed adventure recreation model (Figure 1). The model was effective in identifying components of the outdoor adventure experience that were highly correlated to level of engagement in the adventure activity (described in more detail below).

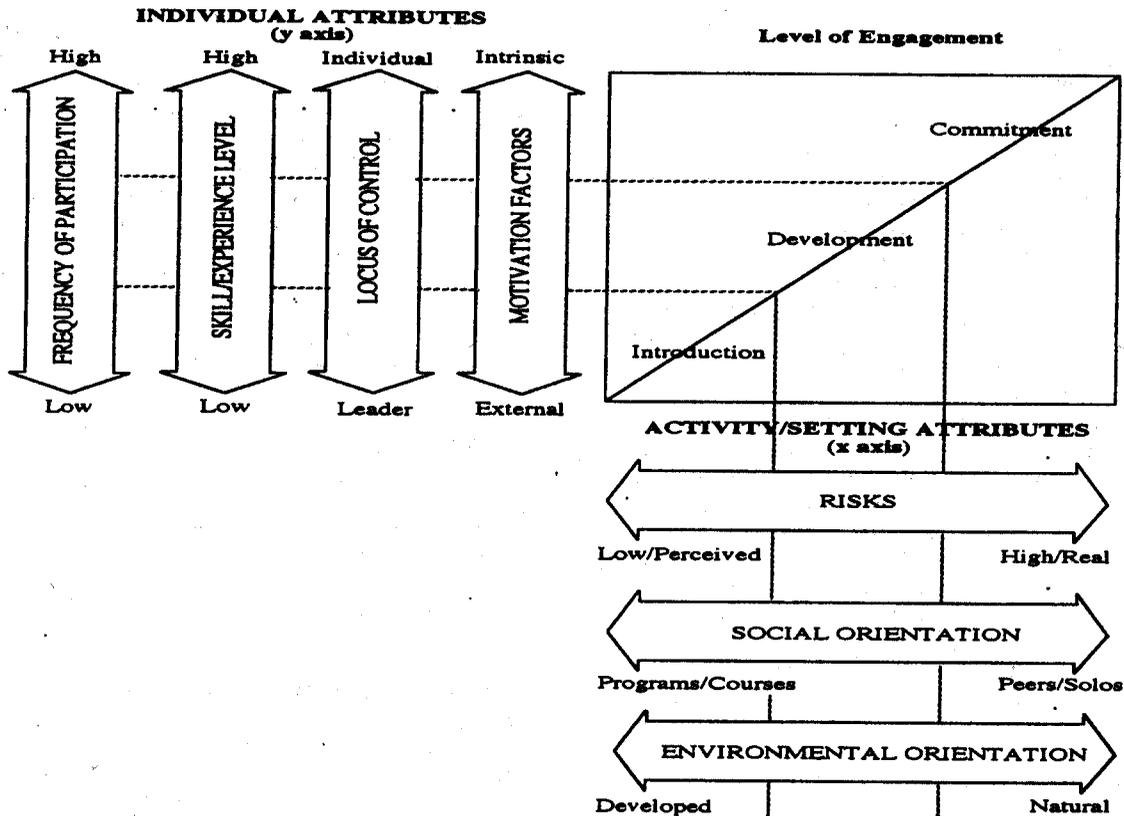


Figure 1. The Adventure Recreation Model by Ewert & Hollenhorst (1989)

Though strong support for the model was found, continued testing of its validity was suggested. Subsequent assessments have generally, but not identically supported the model. Schuett (1992) tested a revised adventure model, using slightly different variables, and reported support for that model. Priest (1992) proposed and tested an alternative model, "The Adventure Experience Paradigm," (p. 128), based on the concepts of risk and competence. His findings also provided support for the concepts in Ewert and Hollenhorst's (1989) original model. The most thorough follow-up study was done by Anderson, Anderson, and Young (2000). Using Ewert and Hollenhorst's model and instrument, the original study was

replicated with a group of subjects who were more diverse in their motivations to participate in outdoor adventure and in their professed levels of engagement. Like the original study, more recent study found relationships between engagement level and all user attributes and between level of engagement and the setting attributes of risk level and type of environment. Unlike the original study, Anderson, Anderson, and Young found nine, not two motivations for participation to correlate with level of engagement.

Through continuing replication efforts, the building of a viable adventure model may be achieved. There are several benefits of having a viable adventure model. First, it would

provide a clarified conceptual understanding of adventure recreation. Second, the model could help resource managers to understand and justify the need to provide a diversity of recreation and adventure recreation opportunity settings. Third, a sound adventure model could guide adventure programmers in tailoring their programs' settings, social contexts, and risk levels to participants' level of engagement in the activities. According to Priest (1992), resource managers and other outdoor recreation service providers could provide a spectrum of recreation opportunities, which would accommodate varying levels of skill and ability. Being able to match users to the settings and programs that best meet their needs would assist managers in providing higher quality experiences and environments. Fourth, as the model undergoes validation and refinement, a new possibility emerges—using the instrument to measure changes or differences in participants over time or stemming from programmatic interventions. Adventure educators might use the Adventure Recreation Model instrument in various quasi-experimental designs to determine the effects of their programs. Because such uses of the instrument will often involve repeated testing of participants, it is important to determine whether the simple exposure to the instrument as a “pretest” affects posttest responses. Hence determining if there are “testing effects” is the purpose of the present study.

Methods

The purpose of this study was to determine if exposure to the Adventure Recreation Model instrument as a pretest had any effects on posttest scores on the instrument. The null hypothesis stated that there would be no significant difference between those students who completed both the pre- and posttest and those who completed the posttest only on the Adventure Recreation Model instrument.

Subjects for this study were 129 undergraduate recreation majors from two separate, but similar summer session Outdoor Education Practicum courses. The subjects ranged in age from 19 to 42 with an average age of 22.5. Fifty-six percent were females, 44% males.

For this study, the required course taken by these subjects was simply a context and not treatment variable. Still, a few words about that context might be helpful. The thirteen-day course included seven days in a camp-like resident outdoor education setting, with amenities, dining facilities, and a structured program. The course also included a six-day wilderness canoe trip in New York State's Adirondack Park.

This study employed the true experimental posttest only control group design (Gay, 1992). In each summer session, half the students were randomly chosen to complete the Adventure Recreation Model instrument at the beginning of the outdoor education practicum. All students completed the posttest administration of the instrument. As depicted in Figure 2, the “treatment” in this experiment was completing the Adventure Recreation Model Instrument as a pretest.

Figure 2. Posttest-only Control Group Design

R	X	O
R		O

R = Random Assignment
 X = Adventure Recreation Model Instrument before course
 O = Adventure Recreation Model Instrument taken post course

The instrument includes items to measure the variables of level of engagement, user attributes (skill level, locus of decision-making), setting attributes (type of environment, preferred level of risk, social orientation), and 18 motivations for participation. The questionnaire used a nine point Likert scale, to which subjects responded for each item on the questionnaire. These items are presented in Table 1.

The data were analyzed with SPSS 9.0. The two groups, those who were pre- and posttested, and those who were posttested only, were compared on each variable using independent t-tests for interval data and Chi Square for nominal data. A .10 level of significance was chosen because in this type of study, Type II (beta) errors are more worrisome. The conventional .05 level might prompt the claim of no pretest effects when, in fact, there are such effects.

Results

As can be seen in Table 2, there were no significant differences between the experimental and control group in relation to age, gender, and their frequency of participation in outdoor adventure experiences. Given the lack of difference between the experimental and control groups, it can be assumed that extraneous variables were controlled for by randomization, and that if there are any differences on the dependent variable, they would be due to the pretesting, or experimental condition.

As can be seen in Table 3, the results showed that for 26 variables measured on the Adventure Recreation Model questionnaire, there were no significant differences found between the group that was pretested and the group that was not. Four variables, level of engagement, skill level, participation with friends, and skill development motivation, were significant at the .1 level (but not at the .05 level). The pretested group had a slightly higher mean score (5.8) on level of engagement than the nonpretested group (5.2). The pretested group also had a higher score on skill level (5.5) than the nonpretested group (5.0). The nonpretested group had a slightly higher score on the social orientation/friends variable (7.5) than the pretested group (6.9). On the motivation variable to develop skills, the pretested group scored higher (7.2) than the nonpretested group (6.7).

Table 1. Items on the Adventure Recreation Model Instrument (Ewert & Hollenhorst, 1989)

1. As an outdoor adventurer, I would consider myself to have had....(little or no experience a great deal of experience)
2. As an outdoor adventurer, I would consider myself to be a(n) ... (beginner with little or no skill expert, highly skilled)
3. How many adventure experiences have you had in the last two years? (none ... more than 10)
4. Regarding most of your outdoor adventure experiences, decisions are usually made by... (others myself)
5. Regarding your recent outdoor adventure experiences, the level of risk you preferred in the activity was ... (low ... high)
6. Regarding your recent adventure experiences, most of the risks in these experiences have been primarily... (social ... physical)
7. Regarding your recent outdoor adventure experiences, the environment in which they occurred was ... (man-made ... natural)

Regarding most of your adventure experiences, with whom do you participate?

1. Friends
2. Programs/Classes
3. By myself
4. Peers of similar skill/experience
5. Teachers/mentors

Regarding your adventure experiences, how important are the following reasons for participating?

- | | |
|---|--------------------------------------|
| 1. to develop skills | 11. to enhance my feelings of myself |
| 2. to make friends | 12. because of requests by others |
| 3. for my image in society | 13. to socialize |
| 4. to do something new/different | 14. to take risks |
| 5. for physical fitness | 15. for excitement and stimulation |
| 6. for the personal challenge | 16. to experience a sense of control |
| 7. for the competition (with others or environment) | 17. for feelings of achievement |
| 8. to experience nature | 18. for status among my peers |
| 9. for fun and enjoyment | 19. to express my creativity |
| 10. for my career/job | |

Table 2. Comparison of Characteristics of the Experimental (Pretest/Posttest) Group with the Control (Posttest Only) Group

Variable	Test Used	Descriptive Statistics	Statistic	Significance
Age	Independent t-test	<u>Pretest/Posttest Group:</u> Mean = 22.9; SD = 4.9 <u>Posttest Only Group:</u> Mean = 21.9; SD = 4.1	t = 1.233	p = .22
Gender	Chi-Square	<u>Pretest/Posttest Group:</u> Female = 39; Male = 34 <u>Posttest Only Group:</u> Female = 35; Male = 23	$\chi^2 = .630$	p = .43
Frequency of participation	Chi-Square	<u>Pretest/Posttest Group:</u> No trips = 1 1-2 trips = 15 3-6 trips = 25 7-10 trips = 10 More than 10 trips = 9 <u>Posttest Only Group:</u> No trips = 1 1-2 trips = 14 3-6 trips = 20 7-10 trips = 9 More than 10 trips = 11	$\chi^2 = .626$	p = .96

Table 3. Comparisons of the Experimental (Pretest/Posttest) Group with the Control (Posttest-Only) Group on Each Variable in the Adventure Recreation Model Instrument

Variable	<i>Pretest/Posttest Group</i>		<i>Posttest Only Group</i>		<i>t</i> value	Significance (* .1 level)
	Mean	SD	Mean	SD		
<u>User Attributes:</u>						
Level of engagement	5.8	1.8	5.2	2.0	1.790	.076*
Skill level	5.5	1.6	5.0	1.8	1.679	.096*
Locus of decision-making	5.5	1.4	5.4	1.8	.664	.508
<u>Setting Attributes:</u>						
Level of risk	6.1	1.5	5.9	1.8	.928	.355
Type of risk	5.5	1.6	5.5	1.3	.155	.877
Type of environment	7.1	1.7	6.7	1.6	1.468	.145
Social orientation – friends	6.9	1.7	7.5	1.9	-1.872	.064*
Social orientation – classes	5.4	1.9	5.0	2.1	1.254	.212
Social orientation – self	3.8	2.3	3.6	2.3	.382	.703
Social orientation – peers	6.1	1.8	5.6	1.9	1.576	.117
Social orientation – teachers	4.4	2.0	4.0	2.3	1.064	.289
<u>Motivations for Participation:</u>						
To develop skills	7.2	1.5	6.7	1.6	1.808	.073*
To make friends	6.6	1.9	6.7	1.6	-.386	.700
For the image	3.2	2.0	3.1	2.1	.073	.942
For novelty	7.5	1.1	7.3	1.6	.924	.357
For physical fitness	7.0	1.6	7.1	1.5	-.347	.729
For the challenge	7.7	1.3	7.8	1.3	-.296	.768
For the competition	4.9	2.2	5.2	2.5	-.877	.382
To experience nature	7.4	1.4	7.2	1.8	.647	.519
For fun and enjoyment	8.1	1.1	8.4	.9	-1.570	.119
For career/job	6.0	2.3	6.3	2.0	-.864	.389
For feelings of self-esteem	6.6	1.9	6.8	1.9	-.642	.522
Requested by others	4.0	1.9	3.6	2.1	1.210	.228
To socialize	5.9	2.0	5.8	1.8	.476	.635
To take risks	6.4	1.8	6.1	1.8	.939	.349
For the excitement	7.5	1.3	7.1	1.6	1.266	.208
To experience control	5.8	1.8	5.4	2.1	1.058	.292
For a sense of achievement	7.4	1.3	7.3	1.5	.365	.716
For status	3.2	1.8	3.3	2.0	-.140	.889
To express creativity	6.2	2.0	5.8	2.1	1.055	.293

Discussion and Recommendations

This study found that exposure to the pretest did not appear to influence resultant scores on the posttest with the exception of the four variables identified above. For these four out of 30 variables, there is a greater probability for pretest effects. Three of these four variables were related to skill level or skill development. Subjects who take the pretest may be made more aware of their skill level as a result of the questions on the pretest.

Based on these findings, it is recommended that the Adventure Recreation Model instrument be used to measure changes in participants using pretesting. By using the instrument in this manner, more rigorous testing of the Adventure Model can occur, due to its developmental approach. However, further study of pretesting effects is in order, particularly with the variables that assess skill. The pretest may cause a sensitization of skill assessment on the part of subjects. In the meantime, using the instrument in pretest/posttest studies may proceed, but with caution in interpreting at least these four items in the instrument.

References

- Ewert, A. (1989). Outdoor adventure pursuits: Foundations, models and theories. Columbus, OH: Publishing Horizons.
- Ewert, A. (1985). Why people climb: The relationship of participant motives and experience level to mountaineering. Journal of Leisure Research, 17(3), 241-250.
- Ewert, A., & Hollenhorst, S. (1989). Testing the adventure recreation model: Empirical support for a model of risk recreation participation. Journal of Leisure Research, 21(2), 124-139.
- Gay, L. R. (1992). Educational research: Competencies for analysis and application (4th ed.). New York: Merrill.
- Priest, S. (1992). Factor exploration and confirmation for the dimensions of an adventure experience. Journal of Leisure Research, 24(2), 127-139.
- Schuett, M. (1992). Testing the adventure model for outdoor adventure recreation participation. In Abstracts of the Proceedings of the 1992 NRPA Leisure Research Symposium (p. 73). Arlington, VA: National Recreation and Park Association.

MODELING NONLINEAR PREFERENCES

Donald F. Dennis

Research Forester, USDA Forest Service, Northeastern
Research Station, P.O. Box 968, Burlington, VT 05402

Abstract: Economic theory, as well as intuition, supports the notion of increasing or decreasing marginal rates of substitution. That is, the marginal benefit derived from an increase in a desired good or service, or one's willingness to accept tradeoffs among various costs or benefits, depends on the current mix or allocation. However, due to widespread availability and ease of use, linear models are frequently used to model preference structure for environmental goods or services. This paper presents an approach for estimating nonlinear effects and contrasts the results with those of linear models. The effects on the optimal choice in multiattribute decisions and acceptability of tradeoffs among costs and benefits are highlighted.

Introduction

Economic theory, as well as intuition, supports the notion that preferences for most types of goods or benefits are nonlinear. The value placed on obtaining an additional unit of a good or achieving the next level of an objective usually depends on the current level. That is, the marginal benefit derived from an increase in a desired good or service, or one's willingness to accept tradeoffs among various costs or benefits, depends on the current mix or allocation. However, due to widespread availability and ease of use, linear models are frequently used to model preference structure for environmental goods or services. This paper presents an approach for estimating nonlinear effects by examining the relative values that private landowners place on various attributes of forest management.

Privately owned forests comprise nearly three-quarters of the forest land in the United States and are expected to play an important role in meeting future needs for timber, recreation, wildlife habitats, and many other forest-related benefits (USDA Forest Service, 1988; 1995). There is concern that these lands may not meet their potential in achieving objectives related to overall ecosystem health and sustainability, nor in providing benefits that transcend legal and political boundaries, e.g., biodiversity, water quality, and habitat for certain kinds of wildlife.

Surveys of private forest-land owners conducted by the USDA Forest Service show that many owners hold their woodland primarily for noncommercial reasons (Birch, 1996). Many people own forest land because it is part of the farm or residence, for aesthetic enjoyment, to view wildlife, or participate in other forms of forest-related recreation. Landowner attitudes and motivations suggest that they are favorably disposed to providing nontimber benefits and protecting the health of the forest ecosystem. However, the large number of owners, diversity of objectives, increasing fragmentation, and nonmarket nature of many benefits pose problems in estimating what can be expected from these lands and in designing policy to

influence behavior (Dennis et al., 2000). We need to better understand the relative importance that landowners attach to various objectives as well as their willingness to incur costs associated with achieving these benefits. This information is relevant for policy formation and as an input to larger analytical models.

Conjoint techniques were used to solicit landowner preferences for management involving varying levels of timber harvesting, recreational trail improvement, apple tree maintenance to benefit wildlife, protection of a rare species of fern, and cost. The nonlinear nature of the relationships among the variables is explicitly explored. An ordered probit model is used to estimate preferences. The results are used to compute marginal rates of substitution (MRS), that is, the tradeoffs that landowners are willing to make to achieve changes in the levels of other objectives.

Methods

The Dillman (1978) Total Design Method was used to design a survey that was mailed to 1,250 forest-land owners who hold at least 10 acres of forest land in Franklin County, Massachusetts. In addition to answering questions on his or her attitudes toward land management and demographics, each respondent completed a conjoint survey. The useable response rate was 61.3 percent.

Conjoint analysis is a technique for measuring psychological judgments and is frequently used in marketing research to measure consumer preferences (Green et al., 1988). Respondents make choices between alternative products or scenarios that display varying levels of selected attributes. The utility of each attribute can be inferred from the respondent's overall evaluations. These partial utilities indicate the relative importance of each attribute's contribution to overall preference or utility. They can be combined to estimate relative preferences for any combination of attribute levels. Conjoint techniques are well suited for soliciting and analyzing preferences in environmental decisions that frequently entail tradeoffs between costs and benefits that are not represented efficiently in market transactions.

Forest-land owners in Franklin County were asked to rate four alternative management scenarios for a hypothetical forested property shown in a figure within the survey. The figure included an area of apple trees, a section of rare ferns, and a recreational trail that passed through the sample property. Each alternative was rated on a scale of 1 to 10, with 10 representing alternatives that they definitely would undertake and 1 those that they definitely would not undertake. Ratings of 2 to 9 represent how likely they would be to undertake alternatives about which they were unsure. Each alternative varied by one or more of the following five attributes: the proportion of the apple trees to maintain on the hypothetical property, the proportion of rare ferns to protect, the extent of the trail network to improve, the extent of timber harvesting, and cost. An orthogonal array was used to create a succinct subset of attribute combinations that allows estimation over the entire range of attribute values ($3^5 = 243$ possible combinations). The resulting 18 alternatives were assigned

to questionnaires in equal frequency. Each alternative consisted of a unique bundle that included all five individual attributes. Each attribute had one of the three possible levels appearing in parentheses. Alternatives appeared as follows:

- Maintain (none/half/all) of the apple trees shown on the figure that benefit wildlife.
- Protect (none/half/all) of the acres containing a rare species of fern shown on the figure by not harvesting timber in this area or otherwise disturbing the ferns.
- Improve (none/half/all) of the trail network shown on the figure. Improvements, if any, would include the cost of building a footbridge over the stream and clearing scenic vistas.
- Harvest timber from (none/half/all) of the lands shown on the figure. Any harvest would be selective, designed to remove poorly formed and leave some high-quality trees; 25 to 30 percent of all trees would be removed.
- This option would have a net cost to you of \$ (50/250/500).

A secondary objective of the survey was to examine landowner attitudes about collaborative management. Landowners were partitioned into two groups. Each group received an identical questionnaire except one group that was asked to imagine that they owned a portion of the hypothetical property described earlier and to rate their willingness to cooperate with adjoining landowners to achieve the management objectives depicted by the alternatives. Because the objective here is to illustrate the conjoint technique and a procedure for estimating nonlinear effects on preferences and not collaboration, responses for both groups are pooled for estimation.

A random utility model was used to explain forest-land owner preferences. When presented with a set of alternatives, individuals are assumed to make choices that maximize their utility or satisfaction. The utility that the *i*th individual derives from the *j*th alternative (U_{ij}) can be represented as:

$$U_{ij} = X'_{ij}\beta + e_{ij}$$

where X_{ij} is a vector of variables, which may include transformations of variables, that represent values for each of the five attributes of the *j*th alternative to the *i*th individual; β is a vector of unknown parameters; and e_{ij} is a random disturbance, which may reflect unobserved attributes of the alternatives, random choice behavior, or measurement error. In the empirical study under consideration, a respondent's utility level (U_{ij}) for each alternative is not observed, but a rating (r_j) is observed that is assumed to proxy for his or her underlying utility.

Following McKenzie (1990, 1993) and others, the analytical capabilities of the conjoint rating model can be illustrated by assuming that rating (r_j) can be modeled as a linear combination of the variables representing the attribute levels. Typically, only linear effects are

considered but we modify the analyses to include quadratic effects to test for nonlinear relationships:

$$r_j = a + b_1x_{1j} + b_2x_{2j} + \dots + b_nx_{nj} + q_1x_{1j}^2 + q_2x_{2j}^2 + \dots + q_nx_{nj}^2$$

The estimated partial utilities are the combined linear (b_n 's) and quadratic (q_n 's) effects of a discrete change in the level of the associated attribute on overall preference. Relative overall preference for any alternative (combination of attribute levels) can be determined by summing across Equation 2.

The MRS is the rate at which an individual is willing to trade one good for another while remaining equally well off (Nicholson, 1978). The MRS or acceptable tradeoff of one attribute for another is determined by the ratio of the marginal responses. Setting the total differential of (2) to the point of indifference and solving yields the marginal rates of substitution or the acceptable tradeoffs for the respective attributes:

$$dr_j = b_1dx_{1j} + b_2dx_{2j} + \dots + b_n dx_{nj} + 2q_1x_{1j}dx_{1j} + 2q_2x_{2j}dx_{2j} + \dots + 2q_nx_{nj}dx_{nj} = 0$$

$$dx_{1j} / dx_{2j} = - (b_2 + 2q_2x_{2j}) / (b_1 + 2q_1x_{1j})$$

Results

Seventy-eight percent of Franklin County is forested, most of which is in nonindustrial private ownership. The average respondent owned 60 acres of forest land, and 70 percent of the parcels were fewer than 100 acres. Nearly 80 percent of the respondents lived within 5 miles of their woodland, 60 percent had owned their land more than 15 years, and one-third had a management plan. Approximately half of the owners were 55 or older, and 74 percent had completed at least 1 year of college.

The model was estimated using a polychotomous probit technique developed by McKelvey and Zavoina (1975) to analyze ordinal level dependent variables. The dependent variable (r_j) is the rating for each alternative scenario and was coded from 0 to 9. The explanatory variables (attributes) were coded 0.0, 0.5, and 1.0 to account for the proportions of apple trees to maintain, trail improvements, fern protection, and extent of timber harvesting. Cost was coded in units of \$100 (0.5, 2.5, and 5.0). Each respondent rated four alternatives for a total of 2,504 rated scenarios. The results are shown in Table 1.

The estimated signs and relative magnitudes of the coefficients provide information on the respondents' preferences. As expected, increased levels for each of the attributes except cost had a positive effect on ratings. The magnitude of the positive effects of maintaining apple trees to benefit wildlife and fern protection were greater than those for trail improvements and extending the area available for timber harvesting (which also can be interpreted as lower restrictions on harvesting). Landowners, therefore, generally placed higher value on wildlife and other nontimber amenities (Birch, 1996; Brunson et al., 1996) and with the attitudinal aspects of this survey (Rickenbach et al., 1998).

**Table 1. Ordered Probit Parameters for a Multiattribute Conjoint Rating Survey
(Dependent Variable = Rating, Coded 0 to 9, N=2,504)**

Variable	Coefficient	Std. error	t-ratio
Constant	-0.1785	0.0701	-2.55
Linear effects:			
Apples	1.1019	0.1955	5.64
Ferns	1.3040	0.1871	6.97
Timber	0.2142	0.0521	4.11
Trails	0.8580	0.1863	4.61
Cost	-0.0415	0.0116	-3.57
Quadratic Effects:			
(Apples) ²	-0.5264	0.1836	-2.87
(Ferns) ²	-0.6996	0.1784	-3.92
(Trails) ²	-0.6570	0.1841	-3.57

All variables were significant at the 1% level.

Log-likelihood = 5179.1

A commonly accepted economic precept with intuitive appeal is that one's preference for more of a particular good depends on how much of the good one already has and that willingness to trade among goods depends on the quantities of each good in one's possession. Quadratic effects were examined to estimate these expected nonlinear relationships. The quadratic terms for apple tree maintenance, fern protection, and trail maintenance were negative and statistically significant, which indicates decreasing marginal benefits for these attributes. The partial utility or the contribution of an individual attribute toward the total utility provided by an alternative is determined by combining both the linear and quadratic effects at a given attribute level. For example, the partial utilities for fern protection at levels none, half, and all are 0.0, 0.477, and 0.604, respectively (computed as $b_i x_i + q_i x_i^2$). Thus the increase in utility resulting from an increase in fern protection from none to half is 0.477, while the increase from half to all is 0.127. It appears that marginal increases in utility decreased once respondents believed that a significant portion of the ferns were protected or the apple trees maintained. Although respondents favored initial trail improvements, similar calculations indicate that maintaining all of the trail network versus just half actually decreased overall utility or preference for an alternative.

To examine the tradeoffs that respondents were willing to accept among the objectives marginal rates of substitution can be computed for any two attributes at the selected

levels using Equation 3. The tradeoff between cost and attaining management objects is frequently useful to policymakers. The MRS between cost and the other attributes shown in Table 2 illustrate the notion of decreasing marginal benefits. Landowners were willing to incur less additional cost to maintain apple trees or protect ferns as the amounts of these attributes already under protection increased. For example, landowners on average were willing to incur a cost of \$23 to protect an additional percentage of the ferns if only 25 percent were currently under protection, but only \$6 if 75 percent already were being protected.

The trade-offs that landowners are willing to accept between two attributes may be determined at any level selected for each attribute by computing the MRS for the attributes directly using Equation 3 or by comparing the MRS between each attribute and cost. For example, if half of the apple trees are currently being maintained, Equation 3 can be used to determine the level at which landowners become indifferent between additional trail improvements and increased apple tree maintenance. The MRS equates to one when apple tree maintenance is at 50 percent and trail improvement is at approximately 21 percent. Thus landowners would prefer to improve the trail network up to the 21-percent level over additional apple tree maintenance at 50 percent. At this level, landowners would be willing to incur the same additional cost to improve an additional 1 percent of the trail network or to maintain an additional 1 percent of the apple trees.

Table 2. Marginal Rates of Substitution, Cost (\$) per 1-percent Increase in Listed Variable at Indicated Initial Level

Level	Apples	Ferns	Trails	Timber
0.00	26.54	31.40	20.66	5.16
0.25	20.20	22.98	12.51	5.16
0.50	13.86	14.56	4.36	5.16
0.75	7.52	6.13	*	5.16
1.00	1.18	*	*	5.16

* Negative

Summary

Nonindustrial, privately owned forests are expected to play an important role in meeting needs for a wide range of forest-related benefits. Estimates of the relative values that landowners place on various nonmarket benefits provided by their land and the costs they are willing to incur to achieve different levels of these benefits are useful to policymakers. Conjoint techniques are well suited for assessing the relative values and acceptable tradeoffs (MRS) among various management objectives. Including quadratic effects allows estimation of nonlinear MRS, which economic theory and these empirical results suggest are important.

Landowners in Franklin County, Massachusetts, generally placed higher values on the ecological aspects (fern protection and apple tree maintenance) of management alternatives than on use-related aspects (timber harvesting and recreational trail improvements). Both fern protection and apple tree maintenance exhibited decreasing marginal rates of substitution. Although landowners feel strongly about providing these benefits, their willingness to make tradeoffs between these and other objectives or to incur additional cost depended greatly on the current levels to which the objectives were being met.

Literature Cited

- Birch, T. W. (1996). Private forest-land owners of the United States, 1994 (Resource Bulletin NE-134). Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station.
- Brunson, M. W., Yarrow, D., Roberts, S., Gynn, D., & Kuhns, M. (1996). Nonindustrial private forest owners and ecosystem management: Can they work together? Journal of Forestry, 94(6), 14-21.
- Dennis, D., Stevens, T., Kittredge, D., & Rickenbach, M. (2000). Aspects of nonindustrial forest ownership that influence attaining recreation and other nontimber objectives. In G. Kyle (Comp., Ed.), Proceedings of the 1999 Northeastern Recreation Research Symposium (Gen. Tech. Rep. NE-269, pp. 215-218). Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station.
- Dillman, D. (1978). Mail and telephone surveys: The total design method. New York: John Wiley & Sons.
- Green, P. E., Tull, C. S., & Albaum, G. (1988). Research for marketing decisions (5th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- McKelvey, R. D., & Zavoina, W. (1975). A statistical model for the analysis of ordinal level dependent variables. Journal of Mathematical Sociology, 4, 103-120.
- McKenzie, J. (1993). A comparison of contingent preference models. American Journal of Agricultural Economics, 75, 593-603.
- McKenzie, J. (1990). Conjoint analysis of deer hunting. Northeastern Journal of Agricultural and Resource Economics, 19(21), 109-117.
- Nicholson, W. (1978). Microeconomic theory (2nd ed.). Hinsdale, IL: Dryden Press.
- Rickenbach, M. G., Kittredge, D. B., Dennis, D. F., & Stevens, T. H. (1998). Ecosystem management: Capturing the concept for woodland owners. Journal of Forestry, 96(4), 18-24.
- U.S. Department of Agriculture, Forest Service. (1988). An analysis of the timber situation in the United States: 1989-2040. Washington, DC: U.S. Department of Agriculture, Forest Service.
- U.S. Department of Agriculture, Forest Service. (1995). The Forest Service program for forest and rangeland resources: A long-term strategic plan (Draft 1995 RPA program). Washington, DC: U.S. Department of Agriculture, Forest Service.

Personal Relevance, Involvement & Loyalty in Outdoor Recreation

PSYCHOLOGICAL COMMITMENT AS A MEDIATOR OF THE RELATIONSHIP BETWEEN INVOLVEMENT AND LOYALTY

Joohyun Lee

Ph. D. Candidate in Leisure Studies, The Pennsylvania State University, 201 Mateer Building, University Park, PA 16802

Alan Graefe

Associate Professor of Leisure Studies, The Pennsylvania State University, 201 Mateer Building, University Park, PA 16802

Abstract: This study tested the ill-understood issues of involvement and loyalty relations. Even though many studies have indicated that loyalty is a function of involvement, only minimal agreement has been reached on the extent to which the constructs of involvement would predict repeat participation. A structural model is developed that relates members' involvement and loyalty using psychological commitment as a mediator. Results suggest that involvement has both a direct and an indirect effect on loyalty and confirm the role of psychological commitment as a mediator between involvement and loyalty.

Introduction

In recent years, leisure scholars have shown increasing references to loyalty and its antecedents in leisure activities or programs (Gahwiler & Havitz, 1998; Iwasaki & Havitz, 1998; Kim, Scott, & Crompton, 1997; Park, 1996). Their studies have emphasized that participants' involvement and psychological commitment are major concepts in the formation of loyalty. Psychological commitment has earned special attention as an essential part of the process of the formation of loyalty (Pritchard, Havitz, & Howard, 1999). Involvement, however, has not yet been empirically linked to loyalty. Even though studies show that involvement and loyalty gauge the success and effectiveness of agencies, only minimal agreement has been reached on how the constructs of involvement and loyalty should be developed and how involvement will predict the strength of repeat participation. Thus, this study will identify the relationship between involvement and loyalty, and test these relations with psychological commitment as a mediator.

Literature Review

Involvement

While scholars have reached consensus that involvement means personal relevance or psychological identification toward an object (McIntyre & Pigram, 1992; Selin & Howard, 1988), there are still various definitions of involvement in the literature. Conceptual definitions of involvement have differed with regard to the content and objects (Costley, 1988).

The content dimension proposes two positions of involvement along an antecedent-consequence continuum. First, the state approach explains involvement as a state of identification or social psychological attachment toward an object. In this sense, involvement is defined as "an unobservable state of motivation, arousal or interest toward a recreational activity or associated product" (Rothschild, 1984, p. 216). According to Selin and Howard (1988), individuals identify themselves by developing psychological attachment towards a recreational activity--'ego' involvement. Similarly, relating the concept of ego and self, the personal relevance of a recreational activity is called 'enduring' involvement. 'Enduring' involvement refers to more permanent attachment while 'ego' involvement implies more situational feelings (Schuett, 1993). Whatever it is called, involvement is explained as a psychological concept from the perspective of being an affective state.

The second approach to describing involvement is a response-based perspective. It takes the consequent position of the involvement continuum. It is generally defined as behavioral involvement, that is the degree of personal relevance an activity holds for an individual and related behavioral consequences (Bloch, Black & Lichtenstein, 1989). It is also measured by response patterns such as frequency of participation, time and money spent, and type of information sources (Kim, Scott & Crompton, 1997).

Approaches to the involvement construct also differ in terms of the objects they attend to (Costley, 1988). In the field of marketing, the direction of brand-specific involvement, advertising involvement, or situational involvement is different in nature. In the field of recreation, the object of involvement can be an activity, service provider, or destination. Generally, leisure involvement refers exclusively to activity involvement. Activity involvement is most frequently studied in the field of recreation and tourism (Havitz & Dimanche, 1997). In some cases, activity involvement is defined as commitment to a specific activity or program (McIntyre & Pigram, 1992). On the other hand, activity involvement refers to the identification of self with an activity or program (Siegenthaler & Lam, 1992). Recently, there are volumes of studies showing that activity involvement is different from commitment but related to it (Kim, Scott & Crompton, 1997; Iwasaki & Havitz, 1998).

With regard to the measurement of involvement, Havitz and Dimanche (1990) proposed several propositions about involvement in the context of recreation and tourism. Among them, the first proposition addresses an important issue of involvement measurement: "Multifaceted scales that portray the involvement construct as a profile of scores, rather than as a single score, are most appropriate for measuring involvement with recreational and tourist experience" (Havitz & Dimanche, 1990, p. 184). Even though single-faceted measurement may be accepted as reliable measurement (Zaichkowsky, 1985; Kim, Scott & Crompton, 1997), it is generally believed that multiple dimensions of measurement contribute to the representation of complex involvement concepts (Havitz & Dimanche, 1997).

As multifaceted measurement better represents involvement concepts, the dimensions of involvement is another issue. Generally, involvement dimensions developed by Laurent and Kapferer (1985) are adopted and modified in leisure and recreation studies. Their study suggested a multidimensional approach with five facets: interest, pleasure, sign, risk importance, and risk probability. While this scale was developed exclusively for consumer goods and services, recreation scholars adjusted it to the concept of recreation and tourism.

Most researchers accept three dimensions of involvement in recreation and leisure (Havitz & Dimanche, 1997). First, perceived importance/interest of activity has been an essential part of involvement (Selin & Howard, 1988; Schuett, 1993; Havitz & Dimanche, 1990, Park, 1996). Every current study includes importance/interest as a facet in the construction of involvement (Havitz & Dimanche, 1997). Enjoyment/pleasure value has been also embraced as a major dimension of involvement in the leisure literature because it reflects a significant element of the leisure concept (Selin & Howard, 1988; Siegenthaler & Lam, 1992; Park, 1996). In addition, sign/self-expression value has been identified as another major component of involvement (Kim, Scott & Crompton, 1997; McIntyre & Pigram, 1992).

Many authors suggest that loyalty and involvement are different constructs and involvement is an antecedent of loyalty (Park, 1996; Siegenthaler & Lam, 1992; Iwasaki & Havitz, 1998). Related to recreational activity, Siegenthaler and Lam (1992) compared loyalty and involvement, suggesting that loyalty is a consistent behavior that involves dedication and consistency, while involvement is self-identification with an activity. Therefore, loyalty focuses more on behavior and attitude while involvement comprises self-image, interest, centrality, and importance. Even though a substantial amount of research suggests that involvement plays an important role in the formation of loyalty, no empirical studies have been conducted to date to explore the linkage between these constructs.

Loyalty

The loyalty construct has earned considerable attention not only in the field of consumer behavior but also in leisure research (Backman & Crompton, 1991; Iwasaki & Havitz, 1998). The development of the construct of loyalty has evolved within the framework of behavioral, attitudinal, and composite concepts in the field of marketing. First, loyalty was defined as an overt behavior or consequences of behavior (Cunningham, 1956). Therefore, it centers on repeat patterns of the same brand over time. Later, the attitudinal component of loyalty earned attention as a better way of understanding the underlying psychological phenomenon behind behavior. Thus, the attitudinal definition of loyalty focuses on customers' preferences and emotional attachment (Day, 1969). Then, the composite conceptualization of loyalty emerged. In this notion, loyalty is viewed as a two-dimensional phenomenon that is a function of psychological attitudes and behavioral

repetition over some period (Jacoby & Kyner, 1973). This concept allows the categorization of the extent of loyalty as high, spurious, latent, and absent (Backman & Crompton, 1991; Dick & Basu, 1994).

Recently, an alternative explanation of loyalty formation has been suggested. Some researchers have argued that the integration of behavioral and attitudinal loyalty does not reflect the sensitive underlying development of the loyalty process (Iwasaki & Havitz, 1998). Therefore, it has been suggested that access to consumers' beliefs, affect, and intention phases in the attitude-behavior development structure would contribute to the development of the construct of loyalty (Oliver, 1999). Consumers develop loyalty following a cognition-affect-intention pattern and become loyal at each attitudinal phase. That is, consumers become loyal in a cognitive phase first and then in an affective manner, followed by an intentional stage and, finally, they express loyalty behaviorally.

The first phase of loyalty is cognition that is developed through available information. This loyalty is based on consumers' belief that the available information indicates one option is preferable to its alternatives. Cognitive consideration includes accessibility, confidence, centrality, and clarity (Dick & Basu, 1994). However, this stage of loyalty is more likely to be another concept of involvement rather than loyalty itself. The next stage is affective loyalty, which is developed in terms of satisfying experiences. In this phase of loyalty, the consumer develops a liking for or a preferential attitude toward the brand. Examples of affective loyalty are emotion, feeling, mood, and primary affect. Yet, there are also difficulties in effectively measuring the affective side of loyalty.

Conative loyalty is developed after the cognitive and affective phases. It implies the behavioral intention to repurchase the brand. This stage of loyalty is defined as "a brand-specific commitment to repurchase" (Oliver, 1999, p. 35). Therefore, a consumer experiencing conative loyalty appears to be deeply committed to participate at first. Generally, loyalty is defined as the behavioral intention to maintain an ongoing relationship (Sheth, Sisodia & Sharman, 2000). Also, Andressen and Lidestad (1998) operationalized loyalty as participants' repurchase intentions and intentions to recommend to others.

Commitment

From a sociological perspective, the concept of commitment is explained as consistent behavior over some period caused by social pressure or side bet (Becker, 1960). Therefore, behavioral consistency and outside influences are important facets of commitment. Extending this view, Johnson (1973) proposed two distinct meanings: personal commitment and behavioral commitment. Personal commitment refers to an individual's dedication to achieve a line of action. Behavioral commitment is a consistent behavior, which consists of social and cost components.

Unlike the sociological definition that emphasizes the social aspect of commitment, the psychological perspective

stresses the role of personal commitment. Commitment is the “emotional or psychological attachment to a brand...[that] is usually considered in purely cognitive terms that measure consumer attitudes of attachment to a brand” (Pritchard, Havitz & Howard, 1999, p. 334). According to Buchanan (1985), commitment is defined as “the pledging or binding of an individual to behavioral acts which result in some degree of affective attachment to the behavior” (p. 402). Therefore, psychological attachment is considered as a key component of commitment.

Many researchers have arrived at an increasingly accepted consensus that commitment and loyalty are different but related concepts (Pritchard, Havitz & Howard, 1999; Kim, Scott & Crompton, 1997). Dick and Basu (1994) indicated that relative attitude is predicted by the strength of psychological antecedents, that is, commitment influences loyalty. Further, models provided by previous studies confirm that commitment serves as a predictor of loyalty and repatronage (Dick & Basu, 1994; Pritchard, Havitz & Howard, 1999).

Related to the role of commitment in loyalty, Jacoby and Kyner (1973) explained that “the notion of commitment provides an essential basis for distinguishing between brand loyalty and other forms of repeat purchasing behavior and holds promise for assessing the relative degrees of brand loyalty” (p. 3). Also, Samuelsen and Sandvik (1997) insisted that loyalty results from commitment for two main reasons: affective reasons and cognitive motives. Affective commitment is an emotional attachment to the brand while calculative commitment refers to perceived risk in performance among alternatives. In conclusion, commitment that focuses on psychological attachment is an antecedent of loyalty that extends the meaning of loyalty over a simple habitual purchase and preference.

As an improvement in the measurement of commitment, Pritchard, Howard, and Havitz (1992) adapted the theory of

psychological commitment (Crosby & Taylor, 1983) as a basis for the operationalization of the Psychological Commitment Instrument (PCI). The primary aspect of the PCI is symbolic consistency that measures overall reluctance to change important associations with service. The second factor of PCI is volition, which is related to components of free choice and control in one’s preference for a service. Positional involvement is the third factor and refers to personal values and self-images perceived in association with a service. Additionally, informational complexity, which deals with ones’ cognitive structure and how consumers manage information about their preference, contributed to the measurement of commitment (Pritchard, Havitz, & Howard, 1999). According to the previous studies, it is evident that psychological commitment plays an essential role in the formation of true loyalty. Therefore, it is suggested that psychological commitment has a direct effect on loyalty. Also, involvement influences the construct of loyalty. However, it is not clear if involvement has a direct or indirect effect on loyalty and how much it will influence the strength of loyalty. Therefore, this paper addresses: 1) the relationship between involvement and loyalty, and 2) whether psychological commitment functions as a mediator between involvement and loyalty. The hypothesized model and its null model of involvement, commitment, and loyalty are shown in Figure 1.

Methods

Study Sample

The subjects for this study are YMCA members who purchased a membership within the last year. A convenience sample of 152 subjects was drawn from the Bellefonte Pennsylvania Family YMCA. The sample consisted of approximately 60% females with an average age of 41 years. More than 70% of the respondents were married and had a college background.

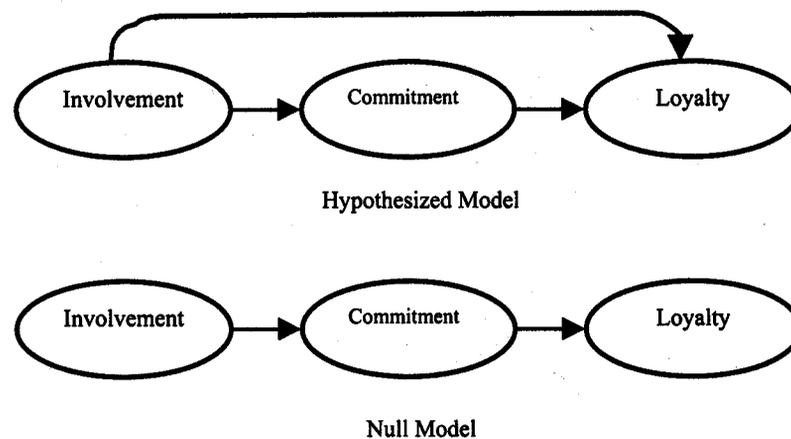


Figure 1. Hypothesized Model and Null Model of Involvement and Commitment and Their Linkage to Loyalty

Instrumentation

Measurement of involvement used a three-dimension involvement scale that is frequently used in the field of recreation and leisure (Havitz & Dimanche, 1997). The dimensions were perceived importance/interest, enjoyment/pleasure, and sign/self-expression value (10 items). Loyalty was measured with the conative loyalty scale. Conative loyalty has been proven by many researchers to be a good indicator of the construct of loyalty (Andressen & Lidestad, 1998; Webster & Sundaram, 1998; Singh & Sirdeshmukh, 2000). Conative loyalty asks about intention of repatronage and advertising by word of mouth (4 items). Psychological commitment was measured with parts of the PCI (Pritchard, Havitz & Howard, 1999). Resistance to change, volitional choice, and informational complexity were the indicators used to measure psychological commitment (5 items).

Results

Prior to testing the structural model in Figure 1, a confirmatory factor analysis (CFA) was conducted to assess the statistical fit of the observed data. Measurement of CFA and the structural equation model were examined with EQS 4.0, a structural equations program. Since every dimension of each factor was specified in advance by theory, CFA can allow for correlation among factors if theoretically justified. CFA produced a chi-square statistic of 253.9 ($df=149$, $p < .01$), with a comparative fit index (CFI) and non-normed fit index (NNFI) of .93 and .94, respectively. Further, it generated standardized RMR (SRMR) and root mean square error (RMSEA) values of .07, indicating an acceptable level of fit to the data (Figure 2). Although certainly of concern, the overall fit of the measurement model was of secondary importance in the study. The primary concern was to examine the hypothesized causal relations between involvement and loyalty and to test the role of psychological commitment between them.

To test the role of psychological commitment between involvement and loyalty, the hypothesis of the null model was examined: Involvement has a direct and positive effect

on psychological commitment and psychological commitment has a direct and positive effect on loyalty. Estimates for the structural model are contained in Table 1. Results of the paths in the null model suggest that involvement affected psychological commitment. The effects of involvement were positive and significant. Further, psychological commitment influenced loyalty directly and positively. The goodness of fit indices of the null model support the role of psychological commitment as a mediator of the relation between involvement and loyalty.

The examination of the path between involvement and loyalty in the null model suggests an indirect effect of involvement on loyalty. The estimated parameter between involvement and loyalty is .40 (.60 x .67). On the other hand, an estimate of psychological commitment to loyalty is .67. This indicates that the effect of involvement on loyalty is smaller than the effect of psychological commitment on loyalty, confirming the importance of the role of psychological commitment to explain loyalty. But, is it true that psychological commitment has a bigger effect on loyalty compared to involvement?

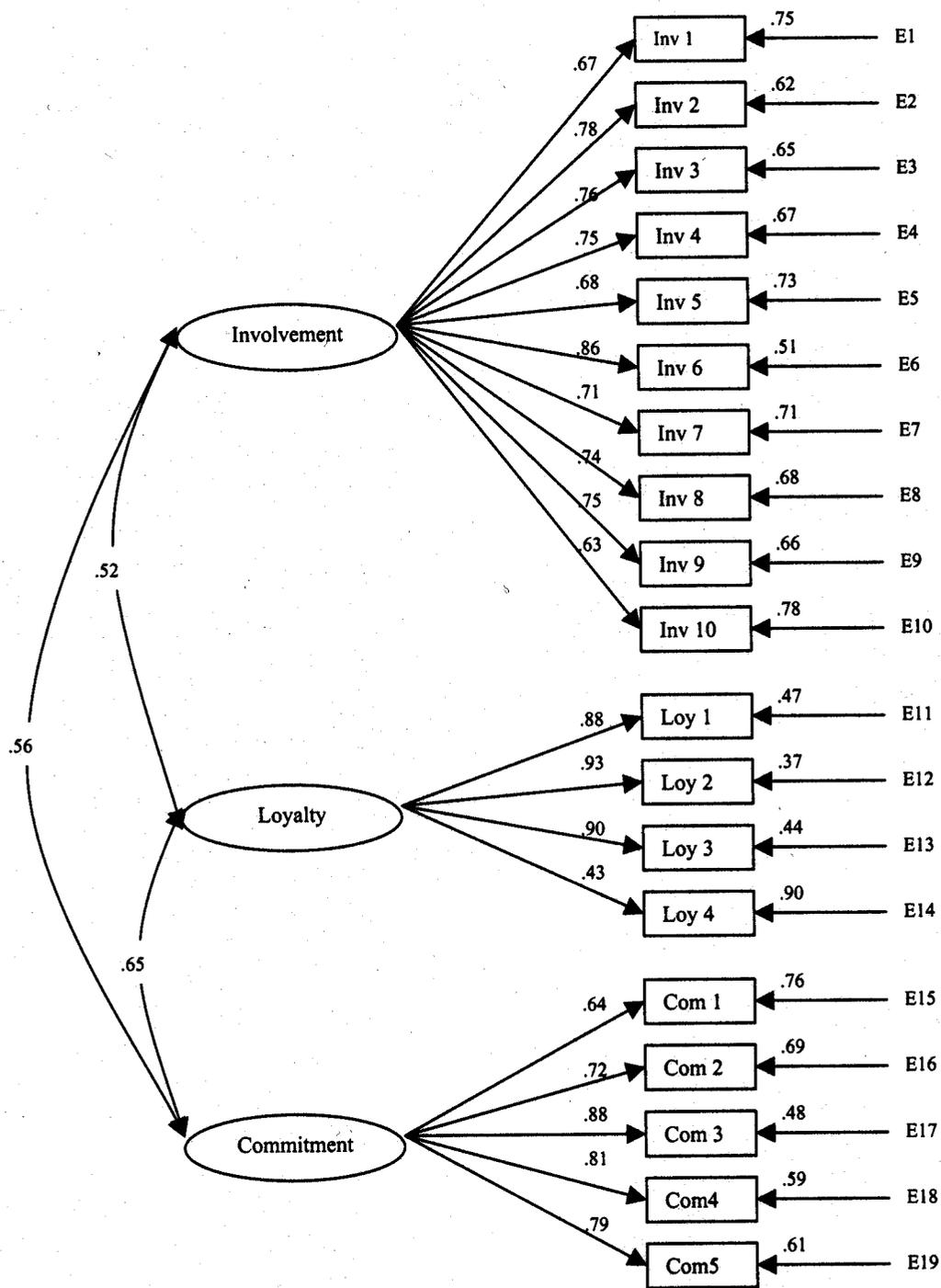
To test the relationship between involvement and loyalty, a direct path was added between them. The hypothesized model met the fitness criteria with an acceptable level (Table 1). Then, the chi-square difference test was employed to determine whether the hypothesized model performed better than the null model (Bagozzi & Yi, 1988). Results showed that the hypothesized model provided a significant improvement over the null model: $\chi^2 = 283.1$ and $\chi^2 = 230.8$ respectively (with 1 degree of freedom difference).

In the hypothesized model, the total effect of psychological commitment is simply the direct effect associated with the path to loyalty (.58). In contrast, the total effects of involvement are defined by the sum of its direct and indirect effects (.58 x .24 + .51 = .65). This total effect is bigger than the total effect of psychological commitment. Therefore, the importance of involvement for explaining loyalty cannot be underestimated.

Table 1. Estimates for the Null Model and Hypothesized Model

Null Model		Hypothesized Model	
Parameter	Estimates	Parameter	Estimates
Involvement → Commitment	.60 *	Involvement → Commitment	.51 *
Commitment → Loyalty	.67 *	Commitment → Loyalty	.58 *
		Involvement → Loyalty	.24 *
Goodness of fit indices			
Chi-square	= 283.1 (df=144)		= 230.8 (df= 143)
Non-normed fit index	= .94		= .94
Comparative fit index	= .95		= .95
Standardized RMR	= .08		= .07
Root mean sq. error of app.	= .07		= .06

* $p > .05$



NOTE: Chi-square = 253.54 (df.149); Bentler-Bonett Nonnormed fit index (NNFI) / Comparative fit index (CFI) = .93 / .94; Standardized RMR (SRMR) / Root Mean SQ. Error of App. (RMSEA) = .07 / .07

Figure 2. Estimates for Measurement Model

Discussion and Conclusion

Several things should be noted concerning the results shown in Table 1. First, results for the two models of mediation show that the effect of psychological commitment is present. Even though some researchers still recognize loyalty and psychological commitment as identical concepts (Park, 1996; Buchanan, 1985; Jacoby & Kyner, 1973), there is increasing consensus that commitment and loyalty are different and psychological commitment is an important antecedent of the structure of loyalty (Pritchard, Havitz, & Howard, 1999; Kim, Scott, & Crompton, 1997). The findings of this study confirm the existence of a mediator between involvement and loyalty, and show the important role of psychological commitment in this relationship. Therefore, managers may strengthen loyalty by maximizing the strategies that emphasize the dimensions of psychological commitment. For example, using diverse information sources such as the Internet and newspapers can increase the consumers' information search dimension.

Second, the importance of involvement to loyalty should be recognized. The model developed in this study suggests the strong influence of involvement on loyalty. The model suggested two significant paths between involvement and loyalty: a direct effect and an indirect effect through a mediator. Even though the direct effect of involvement on loyalty was smaller than the direct influence of commitment on loyalty, the total effects of the constructs suggest that involvement is an equally important predictor of loyalty. Even though many studies have implied that involvement predicts loyalty, no empirical linkage has been revealed to explore the path between them. The findings of this study emphasize the importance of involvement to explain the strength of loyalty, as the model supported a strong linkage between them. Therefore, it is important for managers to focus on providing interesting and enjoyable programs to members, which may lead to increased patronage by the members.

Several suggestions may be made to improve further studies. The primary limitation of this study is its generalizability. Even though members of the YMCA were well suited to examine the theoretical linkage among the concepts, the small size of the sample from only one YMCA may be questioned. Additional research is required that allows for improved generalizability. Also, the construct of loyalty is debatable. Several studies have recognized the deficiency of the operationalization of loyalty and the effort to reveal the concrete conceptualization of loyalty is still an ongoing process. Even though the intentional aspect of loyalty is well established as a dependable definition, more investigation of the loyalty construct is needed.

References

- Andreassen, T., & Lindestad, B. (1998). The effect of corporate image in the formation of customer loyalty. Journal of Service Research, *1*(1), 82-92.
- Backman, S., & Crompton, J. (1991). Differentiating between high, spurious, latent, and low loyalty participants in two leisure activities. Journal of Park and Recreation Administration, *9*(2), 1-17.
- Bagozzi, P., & Yi, Y. (1988). On the evaluation of structural equation models. Journal of the Academy of Marketing Science, *16*(Spring), 74-94.
- Becker, H. (1960). Notes on the concept of commitment. The American Journal of Sociology, *66*(1), 32-40.
- Block, P., Black, W., & Lichtenstein, D. (1989). Involvement with the equipment component of sport: Links to recreational commitment. Leisure Sciences, *11*, 187-200.
- Buchanan, T. (1985). Commitment and leisure behavior: A theoretical perspective. Leisure Sciences, *7*(4), 401-420.
- Costely, C. (1988). Meta analysis of involvement research. Advances in Consumer Research, *15*, 554-562.
- Crosby, L., & Taylor, J. (1983). Psychological commitment and its effects on postdecision evaluation and preference stability among voters. Journal of Consumer Research, *9*, 413-431.
- Cunningham, R. (1956). Measurement of brand loyalty. The marketing revolution. Proceedings of the 37th Conference of the American Marketing Association (pp. 39-45). Chicago: American Marketing Association.
- Day, G. S. (1969). A two-dimensional concept of brand loyalty. Journal of Advertising Research, *9*(3), 29-35.
- Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. Journal of the Academy of Marketing Science, *22*(2), 99-103.
- Gahwiler, P., & Havitz, M. (1998). Toward a relational understanding of leisure social worlds, involvement, psychological commitment, and behavioral loyalty. Leisure Sciences, *20*, 1-23.
- Havitz, M., & Dimanche, F. (1990). Propositions for testing the involvement construct in recreational and tourism contexts. Leisure Sciences, *12*, 179-195.
- Havitz, M., & Dimanche, F. (1997). Leisure involvement revisited: Conceptual conundrums and measurement advances. Journal of Leisure Research, *29*(3), 245-278.
- Iwasaki, Y., & Havitz, M. (1998). A path analytic model of the relationships between involvement, psychological commitment, and loyalty. Journal of Leisure Research, *30*(2), 256-280.
- Jacoby, J., & Kyner, D. (1973). Brand loyalty vs. repeat purchasing behavior. Journal of Marketing Research, *10*, 1-9.

- Johnson, M. (1973). Commitment: A conceptual structure and empirical application. The Sociological Quarterly, 14(Summer), 395-406.
- Kapferer, J., & Laurent, G. (1985). Consumer's involvement profile: New empirical results. Advances in Consumer Research, 12, 290-295.
- Kim, S., Scott, D., & Crompton, J. (1997). An exploration of the relationships among social psychological involvement, behavioral involvement, commitment, and future intentions in the context of birdwatching. Journal of Leisure Research, 29(3), 320-341.
- McIntyre, N., & Pigram, J. (1992). Recreation specialization reexamined: The case of vehicle-based campers. Leisure Sciences, 14, 3-15.
- Oliver, R. L. (1999). Whence consumer loyalty? Journal of Marketing, 63(Special), 33-44.
- Park, S. (1996). Relationship between involvement and attitudinal loyalty constructs in adult fitness programs. Journal of Leisure Research, 28(4), 233-250.
- Prichard, M., Havitz, M., & Howard, D. (1999). Analyzing the commitment-loyalty link in service contexts. Journal of the Academy of Marketing Science, 27(3), 333-348.
- Pritchard, M., & Howard, D. (1992). Loyalty measurement: A critical examination and theoretical extension. Leisure Sciences, 14, 155-164.
- Rothschild, M. (1984). Perspectives on involvement: Current problems and future directions. Advances in Consumer Research, 11, 216-217.
- Schuett, M. (1993). Refining measures of adventure recreation involvement. Leisure Sciences, 15, 205-216.
- Selin, S., & Howard, D. (1988). Ego involvement and leisure behavior: A conceptual specification. Journal of Leisure Research, 20(3), 237-244.
- Seth, J., Sisodia, R., & Sharma, A. (2000). The antecedents and consequences of customer-centric marketing. Journal of the Academy of Marketing, 28(1), 55-66.
- Siegenthaler, K., & Lam, T. (1992). Commitment and eco-involvement in recreational tennis. Leisure Sciences, 14, 303-315.
- Singh, J., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in consumer satisfaction and loyalty judgments. Journal of the Academy of Marketing Science, 28(1), 150-167.
- Webster, C., & Sundaram, D. (1998). Service consumption criticality in failure recovery. Journal of Business Research, 41, 153-159.
- Zaichkowsky, J. (1985). Measuring the involvement construct. Journal of Consumer Research, 12(3), 341-352.

Gender Issues in Outdoor Recreation & Resource Management

OLDER CHINESE WOMEN IMMIGRANTS AND THEIR LEISURE EXPERIENCES: BEFORE AND AFTER EMIGRATION TO THE UNITED STATES

Ching-Hua Ho

Ph.D. Candidate in Leisure Studies Program, the Pennsylvania State University, 201 Mateer Building, University Park, PA 16802

Jaclyn A. Card

Associate Professor in Parks, Recreation and Tourism, University of Missouri-Columbia, 105C Anheuser-Busch Natural Resources Building, Columbia, MO 65211

Abstract: The concept of leisure has generally focused on men. This is especially true in Chinese society where women seldom have the right to speak about leisure or mention leisure activities. For many Chinese women, the integration of household and leisure has been necessary to find meaning in life. Based on this concept, we explored older Chinese women immigrants' leisure experiences before and after their emigration to the United States and barriers that they faced in the United States. The researchers used an in-depth interview approach to discover how 9 older Chinese women immigrants interpreted their leisure. Following the in-depth interviews six themes emerged: 1. women's leisure experiences (e.g., watching TV, walking, shopping, exercising, attending church and gardening) after emigration; 2. barriers (e.g., language, transportation and cultural differences) the women experienced in the United States; 3. traditional Chinese values and their effect on the women; 4. religious activities as an important social link; 5. free time or leisure not a problem, and 6. satisfaction with life and positive attitudes toward the future. The findings are useful because more and more Chinese people are emigrating to the United States, and the number of Chinese older immigrants is increasing. In addition, the results give insight into barriers Chinese women face. This information will allow recreation, tourism and resource managers and researchers to think about how they need to market and manage their resources for this ethnic group. As for the marketing aspect, managers and planners may create promotional pieces in Chinese and hold activities for the women in parks and other recreational areas. In terms of management, they should recognize the women's unique language and cultural barriers and recruit bilingual and bicultural professionals to understand the women's needs for adequate leisure activities or programs.

Introduction

"It seems to be a unique rule that when men have established themselves as rulers, they proceed at once to make laws and evolve doctrines to limit the freedom and power of women" (Tseng, 1992, p. 74). In traditional Chinese society, marriage is the final fate for a Chinese woman. She not only marries, but also dedicates her life to her spouse's family. She has to undertake all the daily

chores and responsibilities, such as serving her parents-in-law, taking care of her spouse, raising or nurturing their children and doing all the household chores. To her, it is her duty, her life.

Today, unlike traditional Chinese society, Chinese women are more conscious of their own being and desire to be treated equally (Tseng, 1992). Constraints, however, still exist in that even if a woman works outside the home, she still must assume responsibility for the household duties with little time to think about herself and even less time for leisure.

In 1965, the passage of the Immigration and Nationality Act equalized immigration opportunities to the United States for Chinese people, especially for Chinese women (Cafferty et al., 1983). Before 1965, because of the immigration and naturalization restrictions for Chinese people, most Chinese immigrants were men. After the passage of the Immigration and Nationality Act, the number of Chinese women and Chinese older immigrants increased gradually. Immigration to the United States has had an effect on Chinese culture. Kim, Kim, and Hurh (1991) indicated a movement away from the traditional Chinese value that older Chinese immigrants are to be taken care of by and to live with their children. Gutierrez (1992) found that the failure of service planners and providers to offer culturally relevant services may be based on assumptions that family members or their own communities act as caregivers to Chinese older adults; however, few studies support this notion.

In the past 10 years, there have been numerous studies about leisure and older adults in the United States; however, little leisure research has been completed on America's ethnic minorities, especially on older immigrants. Barriers to social interaction and interpersonal communication experienced by many older Chinese people accelerate their depression and psychosomatic illness. Older Chinese women immigrants with problems such as language barriers, cultural differences, loneliness, helplessness and economic disadvantage may encounter more diseases, psychological problems or a lack of a social network than native older adults. Many older Chinese immigrants cannot read, speak, or write in English and cannot drive, isolating them from and causing a lack of integration into American culture (Kauh, 1999; Tsai & Lopez, 1997).

Furthermore, the U.S. Census Bureau reported the number of foreign-born Chinese immigrants was 1,107,000 in 1997, and predicted that more and more Chinese people will emigrate to the United States. Goldstone (1997) estimated that, in the next decade, the conflicts between the Beijing regime and Hong Kong or Taiwan could raise attempted emigration from China, also increasing the number of Chinese people in the United States. Leisure researchers, however, have not studied Chinese people's leisure experiences in the United States, especially concerning those of older Chinese women immigrants and barriers affecting their leisure experiences creating a need to explore this topic.

Constraints on Women's Leisure

In the past 10 years, there has been a tremendous growth in research on women's leisure. Much of this research is focused on the relationship between gender and leisure. Shaw (1985) examined three approaches to the analysis of women's leisure and discussed ways to integrate the ideas and concepts from these different approaches. The first and dominant approach was to understand how women's leisure is constrained. "Evidence of gender inequality in many areas of social life leads to the expectation that inequality is likely to exist in leisure as well" (Shaw, 1985, p. 9). The strongest argument here is that women are so oppressed that it is impossible for them to have a fulfilling leisure experience. Other common constraints to women's leisure include temporal constraints, economic constraints and lack of opportunities or facilities (Jackson, 1988). The ethic of care is also connected to women's roles as the first caregiver in the family and helps to explain how family responsibility restrains women's leisure.

The "leisure as constraining" was the second approach focusing on how participation in certain kinds of activities influences women's lives and positions within society. Samdhal (1992) held this view and suggested that leisure is not a gender-neutral aspect of social life. The narrow range and stereotypical nature of the social activities considered appropriate for women constrain women's leisure participation. Leisure may constrain women by reducing options and opportunities for non-traditional activities.

The third approach Shaw (1985) used to analyze constraints on women's leisure examined ways in which women's leisure has the potential for resistance from societally imposed constraints. The ideas of agency and leisure as freely chosen or as self-determined are two important theoretical notions that support the argument for resistance. The idea of agency notes that women (and men) are social actors who interpret social situations and actively construct their responses (Mead, 1934). This argument is also based on a conceptualization of leisure while penetrating notions of personal choice, control, and self-determination. Through these notions, traditional views are challenged and women may regain or create a sense of themselves, even effecting gender equality (Shaw, 1994).

The three different approaches are compatible, based on three guiding principles to formulate a framework – 1. recognition of the contradictory aspects of leisure in women's leisure; 2. the different ways in which constraining factors are associated with women's leisure and, 3. the different ways in which resistance can be associated with women's leisure (Shaw, 1994). Then, this broader framework incorporated by these ideas recognizes the diversity of women's lives and experiences and emphasizes the need to understand women's leisure in the context of their everyday experiences as mediated by social structures.

Immigrants Studies

In recent years, the analysis of leisure behavior among specific ethnic populations has received widespread

attention. The increasing older immigrant population places great demands on federal, state and local government agencies to respond with policies and programs that are sensitive to the needs of culturally diverse older immigrant populations (Allison & Smith, 1990).

Allison and Geiger (1993) interviewed 25 older Chinese-American individuals about the types of activities they engaged in, the nature of those activities and the reasons for continued participation in those leisure activities. They found that the types of leisure activities the older Chinese-American immigrants engaged in (e.g. walking, gardening, watching television and reading) did not appear very different from other older cohort groups. Further analyses revealed that these same activities were traditionally characterized by Chinese culture.

Tirone and Shaw (1997) asked 10 women from India about their understanding and appreciation of the North American concept of leisure and to ascertain what life concepts were not central to them. The qualitative approach reflects the meaning, significance, value and role of leisure in the lives of people who are marginalized by ethnic identity or by cultural heritage (Hughes, Seidman, & Williams, 1993). Tirone and Shaw's study illustrated the centrality of family and the lack of private time, which is often associated with reducing opportunity for leisure. Leisure was not viewed as something important or desirable for these immigrant women. The results indicated that for some immigrants, cultural traditions from the person's country of origin continue to effect the person's life. One cannot assume that the Western view of leisure will be viewed positively by people of diverse ethnic backgrounds who have different life experiences.

In traditional Chinese culture, a woman's status is confined by gender roles. One Chinese maxim states that "a woman before marriage must identify her fate with that of her father, after marriage with that of her husband, and after the death of her husband with that of her son" (Tseng, 1992, p. 78). Today, the norms are not so stringent, but women's roles are still limited to family.

Most older women (and men) live with their adult children because "filial piety is the very important Chinese social value that promotes caring relationships between children and parents" (Tsai & Lopez, 1997, p. 80). Since most young couples must work, the household and child care naturally become the work of the older adults, especially older women. Taking care of grandchildren and doing daily chores are not viewed as 'work', but rather a type of leisure. Church is another important aspect of older immigrants' lives because it acts as a socialization outlet (Pogrebin & Poole, 1990). Some active older women participate in religious activities to help others. During these activities, they make their own decisions and achieve a sense of satisfaction.

More and more Chinese people, including Chinese older adults, emigrated to the United States because of the passage of the Magnuson Act of 1943 that removed many

immigration and naturalization restrictions for Chinese people (Cheng & Cheng, 1984). However, problems such as language barriers, cultural differences, loneliness and economic disadvantage limited their activities. They must rebuild their social network, a difficult task for them, because American's form of life was a new experience. The purpose of this study, therefore, was to ascertain the leisure experiences of older Chinese women immigrants before and after immigration to the United States and to discover barriers they encountered in their leisure pursuits.

Method

Symbolic interactionism emphasizes human interaction as mediated by the use of symbols, by interpretation, or by ascertaining the meaning of one another's actions (Mead, 1934). The main idea in Mead's analysis is that the human being has a self and can be the object of his or her own actions (Blumer, 1995). The presupposition is that "human society is made up of individuals who have selves (that is, make indications to themselves); that individual action is a construction and not a release, being built up by the individual through noting and interpreting features of the situations in which he acts; that group or collective action consists of the aligning of individual actions, brought about by the individual's interpretation or taking into account each other's actions" (Blumer, 1995, p. 209). Symbolic interactionists believe that human actions are constructed by themselves through interpreting situations or others' actions instead of reacting to others' actions. From this basis human beings interpret the world they belong to by themselves. To understand life experiences, researchers need to know how people interpret situations and construct actions while interacting with others.

The researchers used the phenomenological approach, focusing on "what people experience and how they interpret the world (in which case one can use interviews without actually experiencing the phenomenon oneself)" (Patton, 1990, p. 70). The phenomenological approach seeks to reflect the meaning, value, role and experience of leisure in the lives of people who are isolated by ethnic identity and by cultural heritage (Hughes, Seidman, & Williams, 1993).

Participants were selected from a Chinese church and a Chinese association. One researcher visited the church and the association and asked for volunteers. A total of 9 women agreed to participate in this study. Immigration status for the women included three permanent residents and six naturalized citizens. Their ages ranged from 60 to 76 years old. All women had been married and two of them were widowed. The length of stay for all women in the United States ranged from 2 to 40 years. Two women lived in the United States less than 5 years, two women between 6 to 10 years, three between 11 to 20 years and two more than 30 years. Five women came after their adult children emigrated to the United States, two women came with their adult children and two came to the United States as students. Four women were living with their husbands, sons, daughters-in-law and grandchildren and three were living close to or in the same community as their adult children. One woman had no children and was living with

her husband. Four women could not speak any English and three women could speak only a little English. Two women who had been in the United States for more than 30 years speak fluent English.

The researchers used a small-scale qualitative research method under the symbolic interactionist theoretical framework. One researcher, fluent in Chinese and English, conducted the interviews. A bilingual assistant accompanied the interview to assist in interpretation and clarification. The researcher and her assistant met each participant individually in a quiet, private place (the researcher's apartment, the participant's house, and the Chinese church).

The interviewer asked all participants to talk about their leisure experiences, about their families, their children, and about what contributed to their enjoyment, fulfillment and satisfaction before and after their emigration to the United States. The researchers created four primary research questions (Henderson, 1991) based on the qualitative philosophical assumption that there were multiple truths which were socially constructed. The four research questions included: What activities would you consider 'recreation' in your daily life? How do your roles as wife, mother, grandmother, daughter, friend, etc. affect your recreation? Describe an experience you enjoyed doing when you were in your homeland? How did your recreation activities change after emigrating to the United States? The interviewer maintained control of the interview by reminding participants to express their opinions, giving encouraging feedback and responding to both positive and negative emotions that gained the participant's confidence and contributed to the quality of the interviews. The interviewer also recognized problems that were associated with interviewing. For instance, the participants did not understand what "leisure" meant, so some familiar words such as "recreation", "enjoyment", "relaxation", and "satisfaction" were used as synonyms (Tirone & Shaw, 1997). The interviews were tape recorded, transcribed in Chinese, and then translated in English. Following the transcriptions, the researchers compared interviews to discover themes regarding leisure experiences (Lincoln & Guba, 1985).

Findings

Following the qualitative analysis, six themes associated with traditional Chinese values and diverse life experiences emerged.

Experiences of Leisure after Emigration

The women described all of the activities in which they engaged in during a typical weekday and weekend. Watching television, walking, shopping, exercising (e.g. morning exercises), attending church and gardening were the most common activities.

I usually get up at 6:00 a.m. every morning and exercise alone in front of our house. Sometimes, my husband and I take walks around the community or exercise together.... Almost every

weekend, I go shopping with my son and daughter-in-law. I do not go anywhere to have fun, but sometimes my son takes me to church on Sundays.

I love watching Chinese videotapes. I don't understand English.... He (my son) installed a cable TV for me, so I can watch a lot of Chinese programs. I watch these programs every night and then go to bed.

The researchers then asked the women about the experiences they would consider leisure.

I think the most important thing is relaxing. For instance, if you are in a hurry while practicing Tai Chi, you cannot relax, and cannot gain health from exercise, not to mention that you cannot experience "recreation" (leisure). So I think relaxing is very important when I experience "recreation" (leisure).

Actually, I never think about it, I never even think about taking a rest.... I always think I want to do my best to take care of my husband, my children, and my grandchildren. They feel happy and so I feel happy.

The participants then talked about their personal interests and activities in which they participated in their hometowns in Taiwan and China.

After retiring, I went to exercise and practice Tai Chi with my friends in a park every morning. There was a senior's club near my house. There were many kinds of activities there, such as Tai Chi, chess, older adults' disco and something else; I sometimes went there.

The women engaged in a lot of activities when they were in their homelands in Taiwan and China. In the United States, however, they indicated that they seldom participated in activities, even those activities they enjoyed in their hometowns.

Actually, I don't engage in any activities. I know, in the United States, there is a place I can go to practice Tai Chi, but it is too far from my house, so I don't go there.... I love to exercise with friends just like I did in China; I don't like to do it alone. So, after emigrating to the United States, I just take walks with my husband; I do not do those other activities any more.

Barriers Experienced in the United States

Most participants talked about how barriers limited their opportunities to make friends and to become part of mainstream society. The amount of time they had been in the United States influenced these issues. One woman who had lived in the United States for 16 years said:

I still remember three big problems we met after our first arriving to the United States: having no car, and not being able to speak and read English. I felt I was like a mute, a blind person and a person with no feet.

Four women in this study identified cultural differences as barriers. One woman said:

I hope my children can "walk out", that is, to be involved in society; I really hope they can do so. We have been here more than ten years, but our living space is still very limited.... My children asked me many times, "Mom, why cannot we be involved in American society? Even ABC (American Born Chinese) cannot, either." I don't know how to answer; I sincerely hope they can "walk out".

Effect of Traditional Chinese Values

As the women in the study reflected on their lives, traditional Chinese values played an important role in their lives.

In traditional Chinese values, taking care of children is the most important thing, then taking care of your husband; these are more important than I am.

Childcare was the most important responsibility to these older women, especially when their children were young. In most cases, the women had no time for themselves and no time for leisure when their children were young. A good summary of this is in the following statement:

When I was in China, I was very, very busy and my daily life was like a battle. I have four children. I had to work six days a week and did a lot of housework on Sundays.... The hardest time I had was the time that my children prepared for the entrance exams and I was even more nervous than they were and could not sleep well during those periods of time because if they did not pass the entrance exam for going to college, they could not have found a job.... My life was so hectic during that time; I had no time to think about myself, not to mention time for leisure and also my health was not good either. I did not feel released until my youngest child passed the exam. It was the greatest relief to parents.

Importance of Attending Religious Activities

The language and transportation problems limited the opportunities for these older Chinese women to be involved in society and engaged in activities. Religious activities became the center of their lives and contributed to their satisfaction, fulfillment and enjoyment. The Chinese church is a social network support for the older Chinese women immigrants.

I do not feel lonely, even if I do not have a lot of friends here. I plan to engage in more religious activities and I believe I will meet a lot of friends there.

Effect of a Lack of Free Time or Leisure

The experiences of leisure were not something that the older Chinese women could easily discuss. Their roles - wife, mother, grandmother or daughter - had occupied most their time so that leisure was not central to them. One woman remarked:

I do not think being a mother affects my recreation. I never complained in front of my children no matter how tired I was.... I hardly complain because, in my opinion, a mother should do her best to take care of her family and her children. This is beyond doubt. Hence, I do not think I make a sacrifice; I do my best in whatever I need to do.

One woman summed up how important it is to take care of grandchildren:

My mother is in China now and she is 98 years old. When I stay with her, of course, I cannot go to exercise as usual. But I always think that she is old and may not have too many years to live, so I feel that taking care of her is a kind of recreation. It depends on how you look at it.... In the United States, taking care of my grandchildren has the same meaning for me.... You know, during the Cultural Revolution in China,... I had no time to get along with my children, to talk to them. Frankly speaking, I could not experience the feelings between mother and child. Now, when I take care of my grandchildren, I found the feelings I lost; I have recovered them.

Life Satisfaction and Expectations for Future

Although the women faced many problems in the United States that limited their opportunities to engage in previous recreational activities, most women still felt satisfied with their lives in the United States. They gradually adjusted to the American way of life and had high expectations for the future. One woman said:

I am getting used to living here and I really appreciate it...especially after retiring, I do not have to worry about anything; I feel released completely.

Discussion

The results of the study indicated that leisure for the women was as a state of mind or an experience that coincided with Neulinger's (1982) definition of leisure. More than half of the women thought relaxation was the first and foremost thing to experience leisure. The main concern for the women in experiencing leisure was not

what activities they engaged in, how often they participated in those activities, or how much they might benefit from doing those activities, but how they perceived the experiences (e.g., relaxing, enjoyable and satisfying). Definitions and meanings associated with leisure as typically understood by those in the leisure profession were hard for the women to comprehend. To segment leisure from work was not appropriate for investigating the meaning of leisure for the women.

The leisure activities in which the women engaged in the United States differed from those they enjoyed in their hometowns in Taiwan and China. Though barriers such as language, transportation and cultural differences changed their activities after their emigration to the United States, the women perceived pleasure, enjoyment and fulfillment by engaging in such activities as shopping and attending church. The findings implied that the women participated in different activities before and after their emigration to the United States, but the concept of leisure for the women was the same. By doing these different activities, they pursued experiences that contributed to their feelings of satisfaction, enjoyment and fulfillment.

Traditional Chinese values had a profound effect on the women. In most cases, the women had no time for themselves and no time for leisure while their children were young. They considered their children and husbands more important than themselves. Filial piety was also a very important Chinese value that promoted caring relationships between children and parents.

Attending religious activities was an important social link for the women. Because of language and transportation problems, their opportunities for being involved in society and experiencing leisure were constrained. Religious activities, instead, became the center of their lives and contributed to their satisfaction, fulfillment and enjoyment.

The women did not recognize a lack of free time or leisure as a problem. Their roles as wife, mother, grandmother and daughter had occupied most their time so that leisure was not viewed as important to them. However, almost half of the women in this study considered taking care of children and grandchildren leisure. They valued leisure in terms of how well they were able to care for their children and grandchildren. Only one disagreed because she thought taking care of children was even more important than that; it was her vocation, not her avocation.

The leisure experiences of the older Chinese women immigrants changed after their emigration to the United States. Barriers such as language, transportation and cultural differences prevented them from engaging in their previous leisure activities. These barriers, however, did not affect the women's feelings of satisfaction, enjoyment and fulfillment after their emigration. Although the women engaged in activities in the United States that were different from those they enjoyed in their hometowns, their concept of leisure remained the same. For example, why did most of the women consider taking care of children or grandchildren leisure? Why did some women prefer working at a factory after retiring? Why did some women

devote most their time volunteering at church? And why did some of the women like playing tennis or going to concerts? Engaging in these activities gave them a sense of satisfaction, fulfillment and enjoyment, and they regarded engaging in these activities as leisure. Leisure has no cultural boundaries. The women participated in different activities from those they enjoyed in their hometowns, but their concept of leisure did not change. Whether practicing Tai Chi (as the women did in their hometowns), attending religious activities (as the women did in the United States), or taking care of their children and grandchildren (which they continued to do in the United States), they pursued the same goal – to have fulfilling leisure experiences.

Leisure became more meaningful to the women only because they integrated leisure with many aspects of their lives, such as their families and religious activities. This finding is consistent with previous research involving older adults in which leisure was intertwined with life's activities (Henderson & Rannels, 1988; Kelly & Kelly, 1994; Siegenthaler & Vaughan, 1998). When investigating the experiences of leisure for older Chinese women immigrants, the qualitative paradigm provided an appropriate framework for exploring the symbolic interaction of the women.

Filial piety was another important Chinese value that maintained the caring relationships between children and parents, so most of the women in this study lived with or close to their adult children. The results implied that traditional Chinese values had a profound effect on the women. The findings corresponded to Tirone and Shaw's research (1997) in that cultural traditions from the person's country of origin continued to affect the person's life. Chinese society is based on its centuries-old feudal society. Although modernization and industrialization have changed Chinese society, patriarchy still prevails.

Recommendations

The leisure experiences of the older Chinese women immigrants changed after they emigrated to the United States. The results of the study derived from in-depth interviews reflect the characteristics of the older Chinese women immigrants in Columbia, Missouri, and suggest several implications for future studies.

First, language barriers were the most important reasons mentioned by the women that limited their opportunities to make friends with others and to be involved in society. The researchers suggest studies comparing immigrant women with diverse cultural backgrounds to see if they have the same barriers as those identified in the study and to see if their view of leisure is the same as that of Chinese women.

Second, the study raises questions about definitions of leisure for Chinese women, the effect of Chinese traditions on women's lives, the inability to segment Chinese women's lives into work/leisure dichotomies, and the centrality of family on Chinese women's lives. The themes identified here may provide hypotheses for future studies that could examine the lives of Chinese women as integrated through work, leisure, free time, religious

activities and family life. Researchers may also study whether women in Western society have the same characteristics as Chinese women. For instance, do work and leisure intertwine in Western women's lives? Is family the center of their lives? Perhaps there are similar characteristics among women from diverse cultures, and the difference is only a matter of degree.

Third, the top three barriers (e.g., language, transportation and cultural differences) experienced by older Chinese women immigrants prevented them from engaging in leisure activities, even those activities that they enjoyed in Taiwan and China. To target these barriers, local government and community officials may recruit bilingual and bicultural professionals to understand the women's needs and consult with leisure professionals to provide adequate leisure activities or programs for the older Chinese immigrant women. This issue cannot be ignored, as future Chinese immigrants will encounter the same barriers.

Fourth, the researchers suggest local communities organize educational programs for immigrant women to learn English, to understand the local customs and practices, and to learn national, state, and local laws. With the help of such services, the women may 'walk out', be close to American society and participate in leisure activities.

More and more Chinese people are emigrating to the United States, and so the number of Chinese older immigrants is increasing; their unique language and cultural barriers differentiate their leisure needs. Policy makers and practitioners should be sensitive to the needs of older Chinese immigrants and respond with policies and programs to help them with life in the United States which will contribute to their life satisfaction.

References

- Allison, M. T., & Geiger, C. W. (1993). Nature of leisure activities among the Chinese-American elderly. *Leisure Sciences, 15*, 309-319.
- Allison, M. T., & Smith, S. (1990). Leisure and the quality of life: Issues facing racial and ethnic minority elderly. *Therapeutic Recreation Journal, 24*(3), 50-63.
- Blumer, H. (1995). Society as symbolic interaction. In D. McQuarrie (Ed.), *Readings in contemporary sociological theory* (pp. 206-213). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Cafferty, G., Pastora, A., Chiswick, B., Greeley A., & Sullivan, T. (1983). *The dilemma of American immigrants: Beyond the golden door*. New Brunswick, NJ: Transaction Books.
- Cheng, L., & Cheng, S. (1984). Chinese women of Los Angeles: A social historical survey. In H. Young (Ed.), *Linking our lives: Chinese American women of Los Angeles* (pp. 1-26). Los Angeles, CA: Chinese Historical Society of Southern California.

- Goldstone, J. A. (1997). A tsunami on the horizon? The potential for international migration from the People's Republic of China. In P. J. Smith (Ed.), Human smuggling: Chinese migrant trafficking and the challenge to America's immigration tradition (pp. 48-75). Washington, DC: The Center for Strategic & International Studies.
- Gutierrez, L. M. (1992). Empowering ethnic minorities in the twenty-first century. In Y. Hasenfeld (Ed.), Human services as complex organizations (pp. 320-338). Newbury Park, CA: Sage Publications.
- Henderson, K. A. (1991). Dimensions of choice: A qualitative approach to recreation, parks, and leisure research. State College, PA: Venture Publishing.
- Henderson, K. A., & Rannels, J. S. (1988). Farm women and the meaning of work and leisure: An oral history perspective. Leisure Sciences, 10, 41-50.
- Hughes, D., Seidman, E., & Williams, N. (1993). Cultural phenomena and the research enterprise: Toward a culturally anchored methodology. American Journal of Community Psychology, 21, 687-703.
- Jackson, E. L. (1988). Leisure constraints: A survey of past research. Journal of Leisure Research, 10, 203-215.
- Kauh, T. O. (1999). Changing status and roles of older Korean immigrants in the United States. The International Journal of Aging and Human Development, 49(3), 213-229.
- Kelly, J. R., & Kelly, J. R. (1994). Multiple dimensions of meaning in the domains of work, family, and leisure. Journal of Leisure Research, 26, 250-274.
- Kim, K. C., Kim, S., & Hurh, W. M. (1991). Filial piety and intergenerational relationships in Korean immigrant families. International Journal of Aging and Human Development, 33(3), 233-245.
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage Publications.
- Mead, G. H. (1934). Mind, self and society. Chicago, IL: The University of Chicago Press.
- Neulinger, J. (1982). To leisure: An introduction. Boston: Allyn and Bacon, Inc.
- Patton, M. Q. (1990). Qualitative evaluation and research methodology. Newbury Park, London: Sage Publications.
- Pofrebin, M., & Poole, E. (1990). South Korean immigrants and crime: a case study. The Journal of Ethnic Studies, 17, 47-80.
- Samdhal, D. (1992, October). The effect of gender socialization on labeling experience as 'leisure'. Paper presented at the SPRE Leisure Research Symposium, Cincinnati, OH.
- Shaw, S. M. (1985). The meaning of leisure in everyday life. Leisure Sciences, 7, 1-24.
- Shaw, S. M. (1994). Gender, leisure, and constraint: Towards a framework for the analysis of women's leisure. Journal of Leisure Research, 26, 8-22.
- Siegenthaler, K. L., & Vaughan, J. (1998). Older women in retirement communities: Perceptions of recreation and leisure. Leisure Sciences, 20, 53-66.
- Tirone, S. C., & Shaw, S. M. (1997). At the center of their lives: Indo Canadian women, their families and leisure. Journal of Leisure Research, 29, 225-244.
- Tsai, D. T., & Lopez, R. A. (1997). The use of social supports by elderly Chinese immigrants. Journal of Gerontological Social Work, 29(1), 77-94.
- Tseng, P. (1992). The Chinese women past and present. In Y. N. Li (Ed.), Chinese women through Chinese eyes (pp. 72-86). Armonk, NJ: M. E. Sharpe, Inc.
- U.S. Census Bureau. (1997). Country of origin and year of entry into the U.S. of the foreign born, by citizenship status. Washington, DC: U.S. Government Printing Office.

TOWARDS AN UNDERSTANDING OF GENDER DIFFERENCES WITH RESPECT TO WHITEWATER RAFTING PREFERENCES

Duarte B. Morais

Assistant Professor of Hotel Restaurant and Recreation Management, Pennsylvania State University, 228 Mateer Building, University Park, PA 16802-1307

Traci Zillifro

Doctoral Candidate in Leisure Sciences, Pennsylvania State University

Susanne Dubrouillet

Outdoor Program Director, Shaver's Creek Environmental Center, Pennsylvania State University

Abstract: Previous literature suggests that there are an increasing number of females participating in outdoor recreation. However, the majority of outdoor programs are still designed under a male dominated paradigm. Few authors have dedicated attention to the special needs of female participants. Furthermore, very little if any attention has been given to the needs of females who assume leadership roles in the community or family and who are responsible for planning and organizing group trips to the outdoors. This lack of attention is contrary to the importance that this market can have for a commercial outdoor recreation outfitter. It is therefore important to determine what type of outdoor experiences interest this market as well as to determine their preferences and the way they establish relationships with their outdoor recreation providers. As both genders are involved in planning outdoor experiences, it is necessary to gain further insight into the differences that exist to enable marketers to create more accurate strategies for attracting clients.

The purpose of this study was to examine whether there were gender differences among individuals who take groups rafting (group leaders) with respect to the characteristics of the individual, the characteristics of the group, the type of activity sought and they type of relationships they establish with the outdoor recreation provider. The sample consisted of 279 randomly selected individuals (48% females and 52% males) who had purchased a rafting trip for eight or more people from a rafting outfitter in the Southeastern region of the United States. The data were collected with a mail survey. A 48% response rate was achieved and subsequent analysis revealed that there was no threat of non-response bias.

The analysis revealed that female group leaders were significantly more likely to take groups rafting on less challenging rivers. Females were significantly more likely to take family members and friends rafting, whereas males were the predominant leaders in church groups. There were no significant differences with respect to the trip purpose.

As for the type of customer/provider relationships established, males reported to receive more status from the provider and reported to invest more love and money in the provider. In light to these findings it is suggested that marketers of rafting outfitters and perhaps other outdoor recreation providers pay closer attention to the differences between their female and male market segments. Specifically, outfitters that provide activities with different difficulty levels should examine and rework their promotional materials to determine the attracting factors to women. In addition, outfitters should reevaluate the way they relate to their customers and assure that they implement relationship-building strategies that accommodate male and female group leaders alike.

Introduction

The predominant marketing paradigm is male dominated – all potential customers are marketed to based on preferences exhibited by males and principles defined by males. However, female group leaders can be a very important segment for outdoor recreation outfitters. It has been noted in the literature that female participation in outdoor recreation is increasing dramatically (Henderson, 2000). In addition, the female market segment is as important or more important than the male market segment. In fact, women account for more consumer dollars than men (Horowitz, 1995). Another aspect that accentuates women's importance as consumers is the notion that women are more likely to develop emotional attachments with their providers (Myers, 1994) and are more likely to share information about the provider with their friends (Popcorn & Marigold, 2000). The benefits of continuing relationships with customers and word of mouth advertising are well documented in the literature. Customers with an emotional attachment to the company are less price sensitive, more resistant to advertising form competitors, and tend to buy premium products (Morais, 2000). Another factor reinforcing the importance of the female segment is that they have a strong influence in the recreation participation of their family members. Women are the link between their generation and the next (Henderson, 2000; Simmons Market Research Bureau, 1994). Women are often responsible for the recreation choices of their children which is critical because the literature suggests that an important determinant of whether or not people will participate in outdoor recreation as an adult is whether or not they have previous experience and specifically if they participated as a child (Henderson, 2000).

This study is focused on female customers who took a group on a rafting trip with a professional outfitter. These group leaders are a very important market segment for outfitters because each group leader is responsible for bringing many customers and therefore responsible for a substantial amount of revenue. In addition, group leaders introduce the outfitter and the recreation activity to a large number of first time customers who may later come back individually (Kwortnik & Manciny, 1997; Morais, 2000). Due to their role in family groups and community groups, females often assume the position of group leaders. Most

outdoor recreation outfitters are aware of the importance of group leaders to their business and often spend substantial resources to nurture their relationships with this market segment. In contrast these outfitters have only recently started to realize the importance of marketing specifically to female group leaders. The marketing strategies targeted to this segment are typically the same as those used to target male segments.

Contrary to the undifferentiated marketing approach used by outfitters, the existing marketing literature indicates that "women and men don't think the same way, don't communicate the same way, don't buy for the same reasons" (Kotler, Bowen, & Makens, 1998, p. 131). Several authors indicated that female customers not only have different product preferences than men but they also relate with the providers of those products in very different ways (Henderson, 2000; Myers, 1994; Popcorn & Marigold, 2000). Myers (1994), for example, indicated that female consumers prefer to reduce uncertainty on their purchase decisions. Evidence of this is the observation that females tend to do more extensive research before they make a decision. In addition, females tend to place a great importance on the opportunities for interacting with other customers (Henderson, 2000; Popcorn & Marigold, 2000). With respect to customer / provider relationships, females tend to prefer collaborative processes where they are able to explain their specific needs to the provider (Myers, 1994). Myers adds that females have grown more aware of their importance as customers and have begun to demand to be treated with due respect.

The previous paragraphs explained that females are an increasingly important market segment and that they are different from men with respect to their behavior as consumers. Despite this, little literature has attempted to investigate these gender differences. Therefore, the purpose of this study was to examine whether or not there were differences between females and males who take groups rafting (group leaders) with respect to their preferences for the activity and the type of relationship they establish with the outfitter. Hence, the following research hypotheses were tested:

- Hyp 1. There are no significant gender differences with respect to river choice;
- Hyp 2. There are no significant gender differences with respect to affiliation with group members;
- Hyp 3. There are no significant gender differences with respect to trip purpose;
- Hyp 4. There are no significant gender differences with respect to group leaders' perceptions of the providers' resource investments in them (PPRI);
- Hyp 5. There are no significant gender differences with respect to group leaders' reported resource investments on the provider (CRRI).

Method

The data were obtained with a self-administered questionnaire mailed to individuals who had purchased a rafting trip with an outfitter in the Southeastern United

States. The administration process followed a modified Dillman technique consisting of one packet with a letter requesting participation in the study and the instrument, a thank you/ reminder card (one week later), and a second packet with a cover letter and an additional copy of the instrument (three weeks after the first mailing).

The sample size of the study was determined base on an a-priori Power analysis (Cohen, 1988). Despite the scarcity of its use, power analysis is seen by many authors as being the most important factor to determine sample size (Cohen, 1988; Faul & Erdfelder, 1992; Parks, Shewokis, & Costa, 1999). In order to conduct this analysis, the significance level was set to $\alpha=.05$; the desired statistical power was set to .80 ($\beta=.20$); and the effect size considered meaningful was $f=.20$. Considering these values, the necessary sample size for the study was calculated to be 194 subjects (Cohen, 1988; Faul & Erdfelder, 1992). The response rates observed in similar studies ranged between 60% and 20% (Katcham, 1990; Morais, Backman, & Backman, 1999). Consequently the surveys were mailed to a total of 600 customers.

The 600 participants were selected with a stratified proportional random sampling procedure. The strata were created based on the four rivers where the outfitter operated and based on the three seasons: Spring, summer and fall. From those questionnaires mailed out, 23 were returned because of unusable addresses. Of the 577 remaining, 279 were returned and usable for a 48.35% response rate. Due to the moderate response rate a threat of non-response bias was considered. A first test of non-response bias compared the sample and the population and found no significant differences in selected demographic variables (i.e., group size, state of residence). The threat of non-response bias was further examined by comparing the responses of participants with those from a small sample of non-respondents interviewed by phone. This analysis did not reveal evidence of non-response bias as there were no significant differences between the two groups with respect to key variables (i.e., age, intentions to repurchase a rafting trip, past purchases, word of mouth communications, information search, and resistance to counter-persuasion).

Operationalization of Dependent Variables

To test hypotheses 1, 2 and 3, categorical variables were used. The whitewater rafting provider that collaborated with the study offered rafting trips in four different rivers. The sample population was then asked to record the latest river they had rafted with the provider. The item read, "indicate in which river you took your latest trip with Outfitter A." This variable was deemed important because each river was characterized with different levels of difficulty and tended to facilitate different types of recreational experiences. To test the second hypothesis it was necessary to identify what was the affiliation of the group leaders with the rest of the group members. The hypothesis was tested with four dichotomous items. The question read, "Check the boxes that best describe your affiliation with the group members." This variable was examined because previous research has suggested that social group is a very important variable in predicting

outdoor recreation participants' motivations and preferences (Manning, 1999). Lastly, purpose of the trip was examined to test hypothesis three. Purpose of trip was assessed with five dichotomous items. The question read, "indicate what were the primary purposes of your latest trip with Outfitter A." This variable was examined because the literature reviewed indicated that males and females often have different reasons for the purchases they make.

Hypotheses four and five focused on the type of relationships established between the group leaders and the provider. To examine these customer/provider relationships a resource investment framework was used. This framework was initially developed to explain relationships of friendship by Foa and Foa (1974) and was later successfully applied to customer/provider relationships (Morais, 2000). This framework proposes that the type of relationships established between customers and providers is determined by the type of resources that they invest in each other. This study used scales developed by Morais (2000) to assess the types of investments made: the Providers' Perceived Resource Investments scale (PPRI) and the Customers' Reported Resource Investments scale (CRRRI). Both scales consisted of 14 items organized in four dimensions, anchored with 5-point frequency ordinal measurements (1=never to 5=always). Examples of items from the PPRI scales are: "the outfitter treated me as an important customer" and "the outfitter educated me about all aspects of running the trip." Examples of items in the CRRRI scales are: "I consider the outfitter's staff to be my close friends" and "I spent a lot of time and money to make this trip happen."

Analysis and Results

Although the study hypotheses do not address socio-demographic differences between females and males, the authors feel that it would be beneficial to provide a comparative description of both groups. For this purpose, adequate descriptive statistics were used depending on the level of data used. As can be observed on Table 1, participants were in average 40.3 years old, stayed an average of 2.1 nights in the region, traveled approximately 5 hours to the rafting destination, had rafted with the specific outfitter an average of 1.4 times before their last trip, and considering all rafting trips, they had rafted an average of 1.8 times. Table 1 also shows that the participants came predominantly from large cities (25.0%), small cities (25.4%), and from small towns (22.7%). Interestingly, from those participants that came from a suburb (18.8%) the majority of them were males (65.3%), and from the participants that came from a rural area (8.1%) the majority were females (76.2%). The most frequently observed types of employment were management (37.8%), sales (21.2%), teaching (16.0%), and students (10.3%). As shown in Table 1, a larger proportion of females reported sales (63.6%) and student (68.8%) as their occupations, whereas a larger proportion of males reported teaching (66.0%). Although participants belonged to households with incomes varying from lower than \$25,000 to more than \$95,000 Table 1 shows a clear gender imbalance. Specifically, whereas 61.3% of group leaders with household incomes lower than \$50,000 were females, only 38.1% of group leaders with household incomes higher than \$50,000 were females.

Table 1. Descriptive Statistics of Female and Male Group Leaders

Variable	Females <i>Mean (SD)</i>	Males <i>Mean (SD)</i>	Sample <i>Mean (SD)</i>
Age	39.3 (11.0)	41.4 (10.1)	40.3 (10.2)
Length of stay (# of nights)	2.2 (3.6)	1.9 (1.9)	2.1 (2.8)
Distance traveled (hours)	5.0 (3.6)	5.1 (3.5)	5.0 (3.5)
Times rafting with outfitter	1.4 (.8)	1.5 (.8)	1.4 (.8)
Total times rafting	1.7 (1.1)	1.9 (1.1)	1.8 (1.1)
	Frequency (% by gender)	Frequency (% by gender)	Frequency (% of total)
Residence community			
Large city	28 (43.1)	37 (56.9)	65 (25.0)
Small city	35 (53.0)	31 (47.0)	66 (25.4)
Small town	30 (50.8)	29 (49.2)	59 (22.7)
Suburb	17 (34.7)	32 (65.3)	49 (18.8)
Rural area	16 (76.2)	5 (23.8)	21 (8.1)
Employment			
Manager	29 (49.2)	30 (50.8)	59 (37.8)
Sales	21 (63.6)	12 (36.4)	33 (21.2)
Retired	2 (50.0)	2 (50.0)	4 (2.6)
Student	11 (68.8)	5 (31.2)	16 (10.3)
Manufacturing	1 (10.0)	9 (90.0)	10 (6.4)
Teacher	11 (44.0)	14 (66.0)	25 (16.0)
Craftsperson	0 (0.0)	5 (100.0)	5 (3.2)
Household income level			
Less than 55K	65 (61.3)	41 (38.7)	106 (41.9)
More than 55K	56 (38.1)	91 (61.9)	147 (58.1)

In order to test if there were gender differences with respect to trip characteristics and group leader preferences, Chi-square tests were computed. A Chi-square test conducted to examine gender differences in river choice yielded a significant effect, $\chi^2(3, N=271)=7.61, p=.055$. As shown on Table 2, females were significantly more likely to choose the Nantahala, the Ocoee and the Pigeon Rivers. In contrast males were significantly more likely to choose taking their group to the Chattooga River. Comparing the rivers preferred by females with those preferred by males it is apparent that females tended to choose recreational rivers with moderate difficulty. Males, on the other hand, tended to prefer a wild and scenic river characterized by higher levels of difficulty. Therefore, the results provided support to Hypothesis 1.

In a test of gender differences with respect to the group leader's affiliation with the members of the group significant effects were found in several variables. Specifically, Table 3 shows that females were significantly more likely to take family members rafting ($\chi^2(1, N=273)=9.29, p=.002$). The percentage of females that

reported taking family members on the rafting trip was 62% whereas only 41% of males reported taking their family members. Females were also more likely to take friends rafting ($\chi^2(1, N=273)=3.79, p=.052$). Accordingly, 66% of females reported taking friends rafting whereas only 54% of males reported the same. No gender differences were found with respect to the proportion of group leaders that took business associates rafting ($\chi^2(1, N=273)=.17, p=.677$). On the other hand, a significantly larger percentage of males reported taking members of a church group than females ($\chi^2(1, N=273)=5.49, p=.019$). In this case, 39% of males reported taking members of a church group rafting whereas only 21% of females reported the same. In sum, the results provided partial support to Hypothesis 2.

In order to test whether or not there were gender differences with respect to the group leader's purpose for the trip, Chi-square tests were computed. As shown on Table 4, the Chi-square tests conducted to examine gender differences in purpose of trip yielded nonsignificant effects ($p>.10$). Based on these findings Hypothesis 3 was rejected.

Table 2. Gender Differences in River Choice

Variables	Female		Male	
	n	%	n	%
River choice				
Chattooga	38	28.8	59	42.4
Nantahala	30	22.7	26	18.7
Ocoee	49	37.1	47	33.8
Pigeon	15	11.4	7	5.0
$\chi^2(3, N=271)=7.61, p=.055$				

Table 3. Gender Differences in Group Leader's Affiliation with Members

Variables	Female		Male	
	n	%	n	%
Members of group are family				
Yes	62	47.0	41	39.1
No	70	53.0	100	70.9
$\chi^2(1, N=273)=9.29, p=.002$				
Members of group are friends				
Yes	66	50.0	54	38.3
No	66	50.0	87	61.7
$\chi^2(1, N=273)=3.79, p=.052$				
Members of group are business				
Yes	26	19.7	25	17.7
No	106	80.3	116	82.3
$\chi^2(1, N=273)=.17, p=.677$				
Members of group are church				
Yes	21	15.9	39	27.7
No	111	84.1	102	72.3
$\chi^2(1, N=273)=5.49, p=.019$				

Table 4. Gender Differences in Purpose of Trip

Variables	Female		Male	
	<i>n</i>	%	<i>n</i>	%
To be on the river	Yes	67 43.2	53	37.6
	No	75 56.8	88	62.4
$\chi^2(1, N=273)=.89, p=.346$				
Participate in outdoor recreation	Female		Male	
	<i>n</i>	%	<i>n</i>	%
Yes	86	65.2	83	58.9
	No	46 34.8	58	41.1
$\chi^2(1, N=273)=1.14, p=.285$				
Get away	Female		Male	
	<i>n</i>	%	<i>n</i>	%
Yes	27	20.5	26	18.4
	No	105 79.5	115	81.6
$\chi^2(1, N=273)=.18, p=.674$				
Time with friends	Female		Male	
	<i>n</i>	%	<i>n</i>	%
Yes	91	68.9	87	61.7
	No	41 31.1	54	38.3
$\chi^2(1, N=273)=1.57, p=.210$				
For the challenge	Female		Male	
	<i>n</i>	%	<i>n</i>	%
Yes	98	74.2	100	70.9
	No	34 25.8	41	29.1
$\chi^2(1, N=273)=.38, p=.539$				

In order to test whether or not there were gender differences with respect to the types of resources invested by the outfitter on the group leaders, independent samples T-tests were computed. As shown on Table 5, the analysis revealed that males reported receiving status from the provider significantly more often than females ($t(271)=9.29, p=.100$). No significant gender differences were found with respect to the group leaders' perceptions of outfitter's investments of love ($t(271)=.22, p=.829$), information ($t(271)=-.64, p=.523$), and money ($t(271)=-.837, p=.403$). These findings provided very weak support to hypothesis 4. Hence, it was concluded that female and male group leaders perceived to have received equal amounts of resource investments from the outfitter.

Independent samples T-tests were also conducted to test if there were gender differences with respect to the types of resources invested by the group leader on the outfitter. As shown on Table 5, the analyses revealed that males reported to have invested more love ($t(271)=-2.72, p=.007$) and money ($t(271)=-2.17, p=.031$) on the provider significantly more often than females. No significant gender differences were found with respect to the group leaders' investments of status ($t(271)=.61, p=.545$) and information ($t(271)=.01, p=.996$). These findings provided some support to hypothesis 5. It was concluded that male group leaders invested love and money in the outfitter more frequently than female group leaders but they did not differ with respect to investments of status and information.

Table 5. Gender Differences in Type of Investments Made by Provider and Group Leaders

Variable	Female	Male	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
PPRI					
Perceived investments of Love	2.61 (.77)	2.59 (.72)	.22	271	.83
Perceived investments of Status	2.90 (.96)	3.09 (.97)	-1.64	271	.10
Perceived investments of Information	3.15 (.88)	3.22 (.93)	-.64	271	.52
Perceived investments of Money	2.49 (1.23)	2.61 (1.34)	-.84	271	.40
CCRI					
Reported investments of Love	2.46 (.98)	2.79 (1.02)	-2.72	271	.01
Reported investments of Status	3.94 (.83)	3.88 (.84)	.61	271	.55
Reported investments of Information	2.15 (.99)	2.15 (.98)	.01	271	.99
Reported investments of Money	3.68 (.94)	3.94 (1.04)	-2.17	271	.03

Note: $N(\text{females})=132, N(\text{males})=141$

Conclusions and Implications

The purpose of this study was to examine whether or not there were gender differences among individuals who take groups rafting (group leaders) with respect to their preferences for the activity and the type of relationship they establish with the outfitter. A random sample of group leaders who took a group rafting with a commercial outfitter during 1999 were sent a mail survey assessing their river choice, type of affiliation they had with group members, the purpose of the trip, the type of resources invested between them and the outfitter, and a number of selected socio-demographic variables. Statistical analyses revealed that female group leaders were more likely to choose less challenging rivers whereas male group leaders were more represented in a more challenging and wilderness river. Females group leaders tended to bring friends and family to the rafting trip whereas males were the predominant group leaders of church groups. Males reported to have received more status from the outfitter than females and reported to have invested more love and money.

Implications for Research

The present findings are generally consistent with the literature with respect to the notion that females and males tend to develop relationships with their providers in very different ways. This study revealed that male group leaders received significantly more status and invested significantly more love and money than female group leaders. Interestingly, most of the existing relationship marketing literature does not consider the possible intervening effect of gender differences. Chaudhuri and Holbrook (2001) suggested that additional relationships marketing research might benefit from including gender in the analysis. The gender differences observed in the present study confirm these authors' proposition and therefore it is suggested that subsequent studies of customer / provider relationships should pay closer attention to gender differences.

Previous outdoor recreation literature has provided substantial evidence of differences in the preferences of various types of participants. For example Ewert (1993) reported that climbers with different skill levels preferred different types of experiences for climbing in Alaska. Ewert and Hollenhorst (1994) found additional differences in recreation preferences between rafters with various specialization levels. Literature addressing the preferences of female and male participants is, however, very scarce. This study indicates that there are such differences and due to the size and continuing growth of the female segment, it has become more important to understand them in order to more effectively market to them.

Implications for Practice

Overall, the findings indicate that outdoor recreation providers should look at females and males as two segments of their market that have different preferences and want to relate to them in very different ways. Outfitters need first to examine the various products they offer and

determine which are more attractive to females and males. Knowing this may be the first step to understanding their segments and more effectively interacting with them. In this study females were more likely to take family and friends to recreational rivers whereas males tended to prefer more challenging rivers. Subsequent research should address more specific attributes of the recreational experience besides the river characteristics and group type.

The results suggested that males invested substantially more love in the outfitter than females. These findings, however, contradict previous literature. In fact, most authors agree that females are more likely to want to establish close relationships with their providers. Hence it would be expected that they would report investing more love, status and information than males. A reasonable explanation for this discrepancy could be the notion that females did not have the opportunity to create the types of relationships they desired. Additional research is needed to further examine this hypothesis, however, the present findings indicate that outfitters need to create an atmosphere where females can develop closer relationships with them and their staff members.

References

- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd edition). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. Journal of Marketing, 65(2), 81-93.
- Ewert, A. (1993). Differences in the level of motive importance based on trip outcome, experience level and group type. Journal of Leisure Research, 25(4), 335-349.
- Ewert, A., & Hollenhorst, S. (1994). Individual and setting attributes of the adventure recreation experience. Leisure Sciences, 16(3), 177-188.
- Faul, F., & Erdfelder, E. (1992). GPOWER: A priori, post hoc, and compromise power analyses for MS-DOS (Computer program). Bonn, FRG: Bonn University, Department of Psychology.
- Foa, U. G., & Foa, E. B. (1974). Societal structures of the mind. Springfield, IL: Charles C Thomas.
- Henderson, K. A. (2000). Gender inclusion as a recreation trend. In W. C. Gartner & D. W. Lime (Eds.), Trends in outdoor recreation, leisure and tourism (pp. 17-28). Wallingford, UK: CAB International.
- Horowitz, B. (1995, June 20). Big-league advertisers line up to sponsor women's sports. USA Today, p. 1B.
- Katcham, K. (1990). Guest profile study – Wildwater Ltd. Clemson, SC: Clemson University, Department of Parks, Recreation, and Tourism Management.

Kotler, P, Bowen, J., & Makens, J. (1998). Marketing for hospitality and tourism (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Kwortnik, R., & Manciny, M. (1997). Essentials of travel packaging: Creating, marketing and managing the travel product. Lexington, KY: National Tour Association, Inc.

Manning, R. E. (1999). Studies in outdoor recreation: Search and (research for satisfaction (2nd ed.). Corvallis: Oregon State University Press.

Morais, D. B. (2000). Reconceptualization of loyalty under a resource investment perspective: A study of group leaders in the leisure service industry. Unpublished doctoral dissertation, Clemson University, Clemson, SC.

Morais, D. B., Backman, K., & Backman, S. J. (1999). Affect intensity as an antecedent of advertisement recall and intentions to purchase a leisure service. Tourism Analysis, 4(2), 75-82.

Parks, J. B., Shewokins, P. A., & Costa, C. A. (1999). Sport management research: What's still missing? What's still needed? Journal of Sport Management, 13, 139-147.

Myers, G. (1994). Targeting the new professional woman: How to market and sell to today's 57 million working women. Chicago, IL: Probus Publishing Company.

Popcorn, F., & Marigold, L. (2000). EVEolution: The eight truths of marketing to women. New York: Hyperion.

Simmons Market Research Bureau. (1994). Simmons 1994 study of media and markets. New York: Simmons Market Research Bureau.